

REVISING THE SUPERNATURAL:
THE INQUIRY ON MIRACLES IN EARLY MODERN
CANONISATION TRIALS

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Making use of both published treatises and archival documents, this dissertation explains the reasons for the birth of a new concept of miracle in early modern canonisation trials held in Papal Rome.

From the twelfth century, Catholic tradition had long defined a miracle as an event exceeding the whole of the order of nature, which meant both the visible and corporeal as well as the invisible and spiritual order. However, during the seventeenth century, Aristotelian physics was replaced by a new way of investigating nature, focused on mathematics as a method of inquiry, on mechanical explanations and on a new idea of matter based on corpuscular philosophy and atomism. This led to a new idea of nature.

In the canonisation process, alleged miracles were assessed by a committee, who engaged medical experts with the role of evaluating any possibility that the events had natural causes. Between the end of seventeenth and early eighteenth centuries, Roman physicians largely employed mechanical physics to investigate nature. This caused a short circuit: the new idea of nature implicit in the medical experts' investigations did not coincide with the idea of nature from which the medieval definition of miracle had developed. As a result of his direct involvement in canonisation processes, Prospero Lambertini, Promoter of the Faith and future Pope Benedict XIV, became aware of this and adapted the definition of miracle to the new idea of nature. In addition, there was a perceived need to counteract atheists and deists who denied the existence of miracles.

The modification of the concept of miracle reveals a deeper and radical change in the early modern world picture, in which the new boundaries of the natural led to the end of any dialectical relationship between the natural and the supernatural, condemning the latter to a blurred presence.

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Abbreviations

DSDB: *De servorum Dei beatificatione et beatorum canonizatione.*

QML: *Quaestiones medico-legales.*

SRC: *Sacra Rituum Congregatio*

Introduction

Prologue

In a precious and almost forgotten book, *Il coltello e lo stilo* (The knife and the stylus), the historian Mario Vegetti presents some examples from ancient biology, medicine and anthropology, of how Greeks organised the world they lived in using two instruments: the knife and the stylus.¹ The former was employed to divide and distinguish, as the anatomical knife used by Aristotle to classify the realm of animals; the latter, to organise and accumulate knowledge, as the stylus used by Aristotle to write his treatises. According to Vegetti, these two actions of analysis and synthesis represent how western culture has operated through the centuries to make itself what it is today. However, the knife and the stylus are not only metaphors; they also constitute a *historical fact*. A fact, that Vegetti locates in a precise time and place of the history of western culture, the fourth century B.C. in Greece; and he ascribes to a specific person, Aristotle. In fact, before Aristotle, knowledge was organised and produced differently. There was a general mistrust towards writing. Among Presocratics, Parmenides refused to write until he became old and was persuaded to by his disciples. The writings of the Presocratics were ambiguous and more similar to oracles than to philosophical treatises. Plato's *Dialogues* show the same mistrust, reporting many voices and opinions except that of the author. It was not like Aristotle's treatise in which the author is alone in a soliloquy. Furthermore, Plato's *Dialogues* include different arguments in the same dialogue, as when politics and psychology are treated alongside cosmology in the *Timaeus*. By contrast, Aristotle was the first to organise knowledge in an encyclopaedic project. The only previous attempts at this were the handbooks of medicine, though they lacked consistency. Aristotle's encyclopaedia of knowledge corresponds to his understanding of the structure of the world. In these treatises knowledge was not only organised, it was produced. They are the product of Aristotle's theory of knowledge, in which phenomena are first perceived by senses, considered as passive receptors, and then actively elaborated by the intellect, which

¹ Mario Vegetti, *Il coltello e lo stilo* (Milan: Il Saggiatore, 1987).

links them together in causal explanations. The result was a world with a precise sense and order, as the organisation of subjects in Aristotle's encyclopaedia.²

The action of the knife and the stylus represents the process of construction at the base of Aristotle's encyclopedia of knowledge and due to its influence in medieval and early modern universities, of all Western culture. I consider the concept of supernatural a product of this process of separation, which occurred in a precise time and place. In fact, the term 'supernatural' appears for the first time after the rediscovery of Aristotle in the twelfth century, when in his *Summa universae theologiae*, the Franciscan Alexander of Hales (1185-1245), 'chopped' the ancient concept of nature into two pieces: the natural and the supernatural.³ The term was adopted by his colleagues at the university of Paris, among whom Thomas Aquinas (1225-74), who attempted the most influential re-organisation of Christian theology on the grounds of Aristotle's philosophy. For Aquinas, 'supernatural', defines those operations made by God alone, such as miracles, which exceeded the whole of the order of created nature, including the work of angels and demons.

Aristotle's treatises on logic, which were renamed the *Organon* (instrument), guided Scholastic theologians in the construction of a new cosmology made on the separation between the natural and the supernatural. The *Organon* was above all an instrument, a guide to how to achieve knowledge. It was a compound of three groups of books, organised in a scale of increasing complexity, which also correspond to the three activities of human intellect: firstly, the *Categories*, which deals with the comprehension of indivisibles, through which the intellect seizes the essences themselves; secondly, the *De interpretatione*, which deals with the intellectual activity of dividing and composing, through which knowledge is produced; and, thirdly, the *Analytics* and *Topics*, that deals with the argumentative activity of the intellect, through which we can go from known to unknown things.⁴ The four kinds of relations that things could share is summarised in the *Categories*: 'Things are said

² Mario Vegetti, Francesco Ademollo, *Incontro con Aristotele. Quindici lezioni* (Turin: Einaudi, 2016), pp. 38-50.

³ Alexander of Hales, *Summa Theologiae* (Coloniae Agrippinae : sumptibus Ioannis Gymnici sub Monocerote 1622) vol. II, quaes. XLI, art.1, p. 142 .

⁴ Aquinas's commentaries on the treatises of the *Organon* prove to what extent Aquinas shared Aristotle's logic. See Pasquale Porro, *Tommaso d'Aquino. Un profilo storico-filosofico* (Rome: Carocci, 2012), pp. 381-9.

to be opposed in four senses: as correlatives to one another, as contraries to one another, as privatives to positives, as affirmatives to negatives'.⁵ The passage describes four different types of oppositions, in an organisation of things which is clearly based on duality and binary opposition. The supernatural, construed dialectically, was a product of this linguistic strategy. The theologians of the twelfth century elaborated a definition of the supernatural totally dependent on its opposite concept of nature in terms of what it was not. Especially in Aquinas, as we will see in chapter one, the relations that the supernatural could have with nature were threefold: above, contrary and beyond nature. However, and arguably more important for the purposes of this dissertation, the supernatural, as historical fact, was susceptible to change.

The concept of 'polarity' is useful here, first recognised by Aby Warburg as a key to understanding Renaissance culture.⁶ Historian Stuart Clark has argued that in the sixteenth and seventeenth centuries the strategy of reading the world in terms of binary opposition became widespread in learned people, to the point of considering it a mental and cultural characteristic of the age. According to Clark, this was due to many factors, above all the rebirth of the art of rhetoric during the Renaissance.⁷ One kind of polarity seems to have gained popularity during the seventeenth century: Charles de Saint-Paul (1592-1644) argued that contraries had subsumed all the other kinds of opposition.⁸ His words are confirmed by the importance the definition of miracle as contrary to nature would possess in seventeenth-century canonisation treatises. Historian Michele Ciliberto has stressed that Renaissance people organised their thought according to oppositions. For him, the centre of Renaissance culture lay in the continuous dialectic between opposites, the two poles in constant but unresolved tension. Opposites were said to require each other in order to form wholes and improve understanding. The world would be unintelligible without them. Between the fifteenth and the early seventeenth centuries philosophers such as

⁵ Aristotle, 'Categoriae', trans. E. M. Edghill in W. D. Ross (ed.) *The Works of Aristotle* (Oxford: Clarendon Press 1908-52), 11b 15-20.

⁶ Ernst Hans Gombrich, *Aby Warburg: an intellectual Biography* (London: The Warburg Institute, 1970).

⁷ Stuart Clark, *Thinking with Demons. The Idea of Witchcraft in Early Modern Europe* (Oxford-New York: Oxford University Press, 1997), p. 55.

⁸ Charles de Saint-Paul, *Tableau de l'éloquence française* (Paris: G. Clousier, 1632) pp. 235-6.

Giordano Bruno, Niccolò Machiavelli and Michel de Montaigne reveal a way of thinking based on this tension of polarity.⁹ Ciliberto claims that this is also what characterises the distance between the Renaissance and modern periods, in which polarities would lose their mutual attraction and repulsion, to be defined in a more precise framework.

The construct of polarity would decline in the eighteenth century, probably due to the fall of medieval cosmology and Neoplatonism. The relations of things were no longer organised by means of qualitative relations but quantitative ones, and quantity is not a category subject to relations of opposition.¹⁰ In modern time polarity was still to be found, especially in the notion of gender, but it was no longer a paradigm by which reality could be revealed and constituted.

The history of the supernatural, which can be traced by reconstructing the history of the concept of miracle (as is done in this dissertation), runs parallel to this history of separations and dialectic relationships. We can observe this parallel history in the course of three distinct phases. To begin with, Scholastic theology defined miracles as events in opposition to the course of nature. Secondly, sixteenth- and seventeenth-century canon lawyers emphasised the definition of miracles as events contrary to the course of nature. Finally, philosophers such as Baruch Spinoza and some Deists criticised the belief in miracles claiming the impossibility that something could exist contrary to the laws of nature. These developments clearly reveal the dialectical origins of the supernatural.

Methodology

This historical background of how knowledge is dialectically produced and organised in western culture provides the basis for my research and method of inquiry. Accordingly, I will treat the conception of the supernatural as a *historical fact*, which happened in a precise time and place; and I will present it as it emerged out of the separation from the natural. For these reasons, I deem anachronistic any

⁹ Michele Ciliberto, *Pensare per contrari: disincanto e utopia nel Rinascimento* (Rome: Storia e letteratura, 2005); Nicola Panichi, *I vincoli del disinganno. Per una nuova interpretazione di Montaigne* (Florence: Olschki, 2004).

¹⁰ Clark, *Thinking with Demons*, p. 35.

reference to the supernatural before its adoption in theological treatises of the twelfth century. In fact, Augustine never alludes to a twofold order of things in which the natural is separated from the supernatural, but uses the term ‘natural’ to indicate both God’s actions in the world, such as miracles and the work of nature. Until now, historians have mostly focused on the history of the concept of nature alone, losing the intimate bond with the supernatural that it kept throughout the Middle Ages. By contrast, my dissertation seeks to reconstruct a history of the supernatural, conceived as the history of a relationship—or, better, the history of the consequence of a separation of the natural from the supernatural.

In addition to being a historical fact, the ‘supernatural’ denotes an intellectual category. It is commonly believed that it should be concerned with everything located beyond the boundaries of nature. However, the meaning of the word ‘supernatural’ in the Middle Ages did not resemble the modern one. In fact, the Latin prefix *super* not only referred to something that overcame a limit but also something that was located in a higher position. For instance, a miracle does not only exceed the boundaries of the natural, but also belongs to a category located above nature, not just beyond it. The complexity of the meaning of *super*, in a bi-dimensional world, as was the medieval one, has huge relevance.¹¹ In fact, something located in a higher position than another was also nobler, purer and closer to God than everything positioned beneath it. Hence, when medievalists use the supernatural as universal category, they miss the point of what medieval theologians really considered supernatural.

Another reason for considering the supernatural a non-universal category is its complete dependence on the category of the natural. Historians have already traced the changes in meaning of the concept of nature across time and places, showing its historical groundings. Hence, if everything above nature is potentially supernatural, whenever the boundaries of the natural change, so do the limits of the supernatural. In fact, as I will show in my dissertation, when the concept of nature changed during the seventeenth century after the fall of Aristotle’s physics in educated circles, the concept of supernatural also changed.

¹¹ A.J. Gurevich, *Categories of Medieval Culture* (Abingdon-on-Thames: Routledge and Keegan Paul, 1985), pp. 25-40.

Historians focusing on the supernatural have tended to make a twofold mistake. First of all, they examine the supernatural alone, forgetting its total dependence on the concept of nature. Secondly, they treat the supernatural as a universal category, forgetting its historical grounding. Consequently, they tend to fall into anachronistic interpretations. Two examples will suffice. The historian C. S. Watkins, in *History and the Supernatural in Medieval England* (2007), has the category of the supernatural coincide with the works of demons and miracles. He forgets that the wondrous did not coincide with the thirteenth-century intellectual category of the supernatural, but with created nature, which is twofold: visible and corporeal and invisible and spiritual. It would have been different had a twelfth-century theologian used the term ‘supernatural’ himself as a way of identifying the works of demons. Furthermore, when Watkins refers to Augustine, he is using the category of the supernatural, which, as we have seen above, had not yet been conceived.¹² The historian Andrew Keitt, by contrast, does recognise that the category of the supernatural is relative to time and place, and that it changes according to political and cultural factors. To obviate that, he makes use of cognitive science and the adoption of a definition of the supernatural as a ‘minimally counterintuitive concept’ (or MCI).¹³ In Keitt’s opinion, these should give historians the proper tool to investigate the supernatural, since MCIs have the advantage of being based on ontological categories. However, he seems quite unaware that he is using a modern definition of the supernatural, elaborated by a modern science such as cognitive science, which merely allows him to detect the meaning of the supernatural included within that of MCI. Both these approaches are anachronistic.

It would probably be useful to re-read Aron Gurevich’s *Categories of Medieval Culture* (1985) and his idea of history as a dialogue between the present and the past, to avoid anachronism and monologues of the present. Gurevich aims for a comprehension of the ‘world picture’ of medieval man, which is grounded in conceptual categories such as time, space, law etc. We can approach the literature and paintings and understand what they mean only after having understood these

¹² C. S. Watkins, *History and the Supernatural in Medieval England* (New York: Cambridge University Press, 2007).

¹³ Andrew Keitt, ‘Supernatural (Spain)’ in Evonne Levy and Kenneth Mills (eds), *Lexikon of the Hispanic Baroque: Transatlantic Exchange and Transformation*, (Austin, Texas: University of Texas Press, 2006), pp. 329-32.

categories.¹⁴ The same approach is valid for the early modern period, of which it is essential to understand the ‘world picture’. However, we have to bear in mind that the supernatural is not an ‘ideal type’, like those investigated by Gurevich. Rather, it is a historical category that changes across time and place. Accordingly, first of all, we have to understand the early modern concept of the supernatural within the ‘world picture’ of the sixteenth and the seventeenth centuries. I would suggest that the best way to avoid anachronism is to limit the inquiry on the supernatural to the texts and contexts within which the term appeared, recording any unusual meanings and uses of it. But, above all, I will recommend avoiding any applications of the modern meaning of the term, connotations of which differ from those of the pre-modern period. In fact, during the sixteenth century, the category of the supernatural changed as an effect of changing the category of the natural.

The misuse of the concept of supernatural by historians resembles that made by Positivist historians when they brutally overlapped the modern concept of science with the ancient one of *scientia*. They upset the use people made of that word and its meaning, which included any knowledge produced by means of Aristotelian causes. The result was the misleading account of a history of science as a progressive triumph against irrationalism and ignorance. We had to wait until the second half of twentieth century for a social and anthropological approach to the history of science, as well as to the history of medicine. The historian and philosopher of early modern science Margaret Osler has shown how interpretations of the relationship between science and religion that developed in recent historiography are still falling into biased or anachronistic conclusions. Osler suggested abandoning the metaphors of ‘harmony’, ‘conflict’ or ‘segregation’ to explain the relationship between religion and science, and to start thinking both in terms of ‘translation’ and ‘appropriation’ instead.¹⁵ The right way to avoid anachronism is to use local and contemporary categories and concepts. In this case, ‘natural philosophy’ would have been the right one.¹⁶ A method concerned with the description and analysis of patterns of meaning

¹⁴ Gurevich, *Categories of Medieval Culture*.

¹⁵ Margaret J. Osler, ‘Mixing Metaphors: Science and Religion or Natural Philosophy and Theology in Early Modern Europe’ in *History of Science*, 35 (1997), pp. 91-113.

¹⁶ See the debate between Andrew Cunningham and Edward Grant: A. Cunningham, ‘The Identity of Natural Philosophy. A Response to Edward Grant’ in *Early Modern Science and Medicine*, 5 (2000),

avoids teleological and anachronistic evaluations, because the aim is to reconstruct past categories, seeking the elements that constitute them, rather than the causes which have produced our own modern categories.

Accordingly, to understand early modern medicine, we have to re-think 'medicine', or more precisely, to think how medicine was understood and experienced in early modern times. For example, even if we may be surprised by the presence of forty in-folio pages on miracles in a famous seventeenth-century treatise on legal medicine, we should try to understand it by the means of local and contemporary categories. Therefore, the idea is not to understand miracles and medicine separately, but to understand medicine as the place where miracles could, and did, actually happen. To do that, it is necessary to adopt the language used in the early modern period. As a historian, I will seek to avoid using ideal types, or any sort of supposed unchangeable model to investigate the past. On the contrary, I argue that historians should focus on relativities. The words of historian of ancient science and medicine Geoffrey Lloyd offer clear-cut advice:

[...] we should resist any reductive move to homogenize what is real for other people with what we accept as real (whatever that is). There is no theory-free way of accessing an answer to the question of what the world comprises, and in cases where multidimensionality reigns a plurality of answers remains in the field.¹⁷

Lloyd suggests attending to two things to avoid any present-centred investigation and cross-cultural universalism: the differences in the styles of inquiry and the multidimensionality of the phenomena that are there to be investigated.¹⁸ The same strategy, for example, can be used when we approach the question of miracles in the seventeenth century. If we pay attention to the styles of inquiry, one is that adopted by the canonists and theologians, another is that adopted by medical experts. The former, refers to a way of investigation based on Aristotle's physics and

pp. 259-78; E. Grant, 'God and Natural Philosophy: The Late Middle Ages and Sir Isaac Newton' in *Early Modern Science and Medicine*, 5 (2000), pp. 279-98.

¹⁷ Geoffrey E. R. Lloyd, 'History and Human Nature: Cross-cultural Universal and Culture relativities' in *Interdisciplinary Science Reviews* vol. 35, No. 3-4 (2010), p.210.

¹⁸ Lloyd, 'History and Human Nature', p. 212.

cosmology (as I explain in chapter two), the latter, refers to the new way of investigating nature and to a new physics (as I explain in chapter four). Hence, the multidimensionality of miracles will appear: natural phenomena for Augustine, contrary to nature for Aquinas and the early modern canon lawyers, and merely extraordinary or beyond nature for some early modern philosophers, such as Robert Boyle (1627-91).

Due to the emphasis I am giving to language throughout this dissertation, it is necessary to say something about the 'linguistic turn'. There are basically two ways of understanding language: as a simple medium, relatively or potentially transparent, for the representation and expression of reality; or as a means which is able to constitute reality. For instance, according to the former, early modern witchcraft is a belief which did not have any correspondence with reality and therefore, can be explained as deviances or moments of common psychosis. By contrast, the latter approach would argue that early modern witchcraft was the way in which people of the time explained and experienced reality according to categories provided by language itself. The most relevant difference in the two approaches is the absence of any value judgments in the latter approach and, consequently, the introduction of the criterion of cultural relativism.

Stuart Clark's *Thinking with Demons* (1997) is a successful attempt to examine the period in which people co-existed with demons, by the means of a coeval language.¹⁹ It opens with a deep survey on the structure of early modern language, underlining the dual classification that exists within it and the tendency of early modern users to play with the categories of inversion and contrariety. As Clark points out elsewhere: 'Nature was not mysterious to peasants because it was unintelligible to them; if it was mysterious, this was precisely because it was intelligible in terms of a language of mystery'.²⁰ Clark claims that the structure of the world was seen by early modern people as consisting of the principle of its intelligibility, which means that there was perceived no distance or discrepancy between the world and the language, that the world has the properties of language.

¹⁹ Clark, *Thinking with Demons*.

²⁰ S. Clark, 'French Historians and Early Modern Popular Culture', *Past and Present*, 100 (1983), pp. 62-99 (84).

The belief that cosmology and epistemology coincide is at the basis of my research inquiry.

Historians' main concern towards the 'linguistic turn' is the so-called 'textualisation of reality', or in other words, the collapse of the context into the text. For, if language produces reality, reality is readable as a text. Thus, cultures and historical phenomena are explained according to codified structures with the risk of reducing 'experience to the meanings that shape it'.²¹ In my point of view, it is inevitable, when we tell others what we have experienced, that we operate within the limits and the possibilities of the means we use to communicate it. The language we employ to understand reality is the same language that we employ to understand ourselves. Moreover, when we speak, we should always keep in mind that 'we are also spoken' at the same time.

However, historians must be cautious with the application of modern theories of text to ancient documents. A useful suggestion of how to limit the reductionism of experience into meanings was made by Quentin Skinner. In a well-known article, he suggested that intellectual history should deal not just with the ideas elaborated in treatises but with the use that was made of them in different contexts by different people. According to Skinner: 'there is not a history of the idea to be written, but only a history necessarily focused on the various agents who used the idea, and on their varying situations and intentions in using it'.²² By following Skinner's suggestion, historians are able to capture the diversity of experience narrated by the multiple uses of a number of key words.

Clark's *Thinking with Demons* can be seen as a *mise en pratique* of Skinner's methodological suggestions. In fact, the world/word 'witchcraft' is delineated in a variety of contexts: linguistic, scientific, religious, historical and political. These are understood respectively as idioms: symbolic, physical, temporal, spiritual and practical. Following this methodology, Clark is able to understand a fundamental feature of the early modern culture of witchcraft: that it was not just a matter of 'superstition', but both a belief and an object of inquiry by theologians and natural philosophers. Clark points out that early modern demonologists and learned people

²¹ John E. Toews, 'Intellectual History after the Linguistic Turn: The Autonomy of Meaning and the Irreducibility of Experience' in *The American Historical Review*, 92 (1987), pp. 897-907 (906).

²² Quentin Skinner, 'Meaning and Understanding in the History of Ideas', *History and Theory*, 8 (1969), pp. 3-53 (38).

considered demons to operate within the boundaries of the natural, which they could at most force, by provoking wonders like monstrous births, but never break.²³ Accordingly, since demons worked within natural causes there was no epistemological difference between natural and preternatural categories. In fact, natural and demonic explanation of disease coexisted in medical works and physicians could write treatises on both without being in contradiction. The stress on the importance of language, together with the anthropological concept of culture, helps to avoid the application of modern categories such as the supernatural into a context in which they do not belong.

As explained above, historians cannot limit their research to concepts developed in printed treatises. They have to extend it to the uses people made of them. For example, in *Witchcraft and Inquisition in Early Modern Venice* (2011), Jonathan Seitz has shown that the distinction between the natural, the preternatural and the supernatural found in medico-legal and canon-law treatises does not appear in Venetian witchcraft trials. According to these treatises, all the aberration of nature which did not have natural explanations, and the works of demons which could force but never break natural boundaries, belonged to the preternatural. The absence of any reference to the preternatural in Venetian trials means that inquisitors and physicians, prosecutors and defendants, did not apply this distinction in describing alleged spells, sorceries or witchcraft. Consequently, Seitz claims that the category of preternatural is ‘not obviously operating in the minds of witnesses or even inquisitors in the Venetian witchcraft trials’.²⁴ On the one hand, he reminds us of the danger of a methodological approach based exclusively on prescriptive literature, and he encourages us to verify whether a theory is applied. On the other hand, it sheds light on the purely intellectual ‘nature’ of the preternatural category. Furthermore, the Venetian witchcraft cases examined by Seitz reveal the physicians’ ‘schizophrenia’ in evaluating the natural or non-natural causes of a disease. When they testified as medical experts, they relinquished any competence to discuss non-natural phenomena and chose to speak only about natural causes. By contrast, when they were personally involved in alleged witchcraft, for instance when their wives or

²³ Clark, *Thinking with Demons*, pp. 149-312.

²⁴ Jonathan Seitz, *Witchcraft and Inquisition in Early Modern Venice*, (Cambridge: Cambridge University Press, 2011), p. 21.

daughters were suspected of being bewitched, they did not hesitate to testify in favour of witchcraft. According to Seitz, the physicians' inconsistency in approaching non-natural phenomena depends on the role they had as a professional category and on the need to keep their competence separate from that of other healers, such as exorcists and charlatans.²⁵ For these reasons, I have focused my research not only on treatises but on trial records as well.

The historiography of miracles

Miracles offer a privileged position from which to observe the development of the relationship between the natural and the supernatural. As historian Marilena Modica has observed, miracles are at the juncture between the two.²⁶ However, miracles have only recently become a sustained object of study in history. The first work on miracles was Marc Bloch's *Le rois thaumaturges* (1924), which analyses the medieval belief that the physical touch of a monarch could heal from scrofula.²⁷ Bloch was not concerned with the effectiveness of the royal touch as such, but with combining various disciplines, including anthropology, medicine and psychology, to understand why people believed in it and how that belief shaped relations between the king and commoners. This new approach was endorsed by the historians of the *Annales d'Histoire Economique et Sociale*, co-founded by Bloch and Lucien Febvre in 1929. They aimed to shift away from the previously dominant political history towards a history of mentalities, methodologically linked with the social sciences of the time. Much later, Jacques Le Goff, in *L'imaginaire médiéval* (1984), explored on the relationship between ecclesiastical culture and folklore, stressing the idea of the 'wonderful' as an indispensable part of medieval reality.²⁸

The next step forward in the historiography of miracles is evident in three edited works: in French, *Miracles, prodiges et merveilles au Moyen Age* (1994); in

²⁵ Seitz, *Witchcraft and Inquisition*, pp. 169-95.

²⁶ Marilena Modica 'Il miracolo come oggetto di indagine storica', in Sofia Boesch Gajano, Marilena Modica (eds), *Il miracolo. Dai segni alla storia* (Rome: Viella, 2000), pp. 17-27: 17.

²⁷ Marc Bloch, *The Royal Touch: Monarchy and Miracles in France and England* (Abingdon-on-Thames: Routledge 1973).

²⁸ Jacques Le Goff, *L'imaginaire médiéval: essais*, (Paris : Gallimard 1984).

Italian, *Miracoli. Dai segni alla storia* (2000); and, in English, *Signs, Wonders, Miracles. Representations of the Divine Power in the Life of the Church* (2004).²⁹ These works contribute to the ‘coming out’ of miracles from a generic category of medieval mentality, by examining them in different contexts and with different approaches, such as the theological, anthropological and literary. Early modern mentalities towards miracles are sketched in Craig Harline’s *Miracles at the Jesus Oak: Histories of the supernatural in Reformation Europe* (2003).³⁰ However, studies on miracles and sainthood has since focused mostly on social history, emphasising the experience of healing people and the social construction of credibility, as in Paolo Parigi’s *The Rationalisation of Miracles* (2012).³¹

Experience and the meaning of wonders remains at the core of Lorraine Daston and Katherine Park’s *Wonders and the Order of Nature* (1998).³² Here, there is no emphasis on language, no analysis of patterns of meaning, but a diachronically organized narration of the vicissitudes of wonder and wonders through books and material culture. The authors do not explain the disappearance of marvels in philosophy, natural history and medicine as a process of naturalization in which wonders became objects of philosophical inquiry; rather, their concern is to provide examples of it in different attitudes which ‘recurred like waves’ through history. On the one hand, the sensibility of wonder is examined through learned literature; on the other hand, wonders are explained according to the technique of reducing ideas and their relations to their institutional context. Thus, Giambattista della Porta’s notion of a hierarchical universe is said to have replicated the structures of Italian patronage, and seventeenth-century views of the regularity of natural order mirrored contemporary debates about the temporal sovereignty of kings. The emphasis is on

²⁹ *Miracles, prodiges et merveilles au Moyen Âge*, actes du XXVe Congrès de la S.H.M.E.S., Orléans, juin 1994 (Paris : Publications de la Sorbonne, 1995); Sofia Boesch Gajano, Marilena Modica (eds), *Il miracolo. Dai segni alla storia* (Rome: Viella, 2000); Kate Cooper, Jeremy Gregory, *Signs, Wonders, Miracles. Representations of the Divine Power in the Life of the Church* (Rochester NY: The Boydell Press, 2005).

³⁰ Craig Harline, *Miracles at the Jesus Oak: Histories of the supernatural in Reformation Europe* (New Haven, Connecticut: Yale University Press, 2003).

³¹ Paolo Parigi, *The Rationalisation of Miracles* (New York: Cambridge University Press, 2012).

³² Lorraine Daston, Katherine Park, *Wonders and the Order of Nature* (New York: Zone Books, 1998).

social agency, echoing the works of Steven Shapin on the social construction of knowledge.³³ The main issue is whether intellectual categories can be reduced to social explication. In my opinion, in Daston and Park the category of the preternatural, as a category to which things departing from the natural order and causing wonder belong, lacks an ontological explanation.

An intellectual history of the miracle is still lacking. That said, a rare contribution is the pioneering work *The Great Debate on Miracles* (1981), by R. M. Burns. While limiting his scrupulous inquiry to Protestant England, Burns recognised the philosophical assumptions behind the debate on miracles. Another is Robert Bartlett's *The Natural and the Supernatural in the Middle Ages* (2006), in which the category of supernatural is examined as a historical fact. In fact, Bartlett locates the origin of the dualism of the natural and what is beyond nature in the twelfth century.³⁴

The first two chapters of my dissertation represent an attempt to fill the gap in the history of the concept of miracle in Catholic countries, and especially in Italy. To find other contributions to the intellectual history of miracles we have to move from historians to theologians. Robert Grant's *Miracle and Natural Law* (1952) has the merit of comparing the concept of miracle with that of nature, which led the author to recognise that in Augustine, miracles are described as natural events. Grant was criticised by the Jesuit John Hardon, who accused him of denying God's supernatural intervention in Augustine's theory of miracles. The disagreement lay on the interpretation of the *rationes seminales* (seminal reasons), a theory used by Augustine to explain how miracles occurred.³⁵ Augustine argued that during creation God planted these seeds into things, which, whenever they are solicited by God, allows nature to produce something extraordinary. On the one hand, Hardon claims that *rationes seminales* are comparable to the Thomist concept of 'obediential potency', which is the non-reluctance of human intellect to know God. Thomists argued that due to human inclination towards abstraction, it was possible for men to

³³ Steven Shapin, *A Social History of Truth. Civility and Science in Seventeenth-Century England*, (Chicago: Chicago University Press 1995).

³⁴ R. M. Burns, *The Great Debate on Miracles. From Joseph Glanvill to David Hume* (London-Toronto: Associated University Presses 1981); Robert Bartlett, *The Natural and the Supernatural in the Middle Ages* (Cambridge: Cambridge University Press 2008).

³⁵ Augustine, *De Genesi ad litteram*, bk. VI, 14.25.

know God, but only through his grace.³⁶ Just as God produces miracles using proper seeds implanted in nature, he can also make human beings know him by using our predisposition for abstraction. On the other hand, Grant claims that seminal reasons were the way to explain that miracles belong to nature. Neither theologian considers the fact that the idea of nature might have changed from Late Antiquity to the Middle Ages.

Finally, an important effort to trace the history of the category of the supernatural was made by the Jesuit Henri de Lubac. He tried to find the historical reasons for what he believed was the contemporary misunderstanding of the concept of supernatural. De Lubac found it in the sixteenth century's excessive development of the concept of 'pure nature', which determined a complete separation of the categories of the natural and supernatural.³⁷

Leaving aside the historiography on miracles and its related category of the supernatural (the focus of the first two chapters of my dissertation), a glimpse at the vast historiography on sainthood will help to understand the institutional context in which miracles are officially recognised. The masterwork of medievalist André Vauchez, *La sainteté en Occident aux derniers siècles du Moyen Âge* (1981), is a systematic examination of the records which belong to the processes of canonisation held between twelfth and fifteenth centuries.³⁸ It shows how the control over canonisation has progressively passed from local bishop to papacy in the late middle ages, and how the model of sanctity changed through the centuries. The early modern period has been covered by the researches of Simon Ditchfield and Miguel Gotor.³⁹ Both deal with the political implications which laid behind a declaration of

³⁶ Antonio Piolanti (ed.), *Il soprannaturale* (Torino: Marietti, 1960); Raimondo Spiazzi, *Natura e Grazia. Fondamenti dell'antropologia cristiana secondo San Tommaso d'Aquino* (Bologna: Edizioni Studio Domenicano).

³⁷ Henri de Lubac, *Augustinianism and Modern Theology*, trans. Lancelot Sheppard (New York: Crossroads 2000).

³⁸ André Vauchez, *La sainteté en Occident aux derniers siècles du Moyen Âge (1198-1431)* (Rome, École française de Rome, 1981). English trans. *Sainthood in the Later Middle Ages* (Cambridge, 1997).

³⁹ Simon Ditchfield, 'Sanctity in Early Modern Italy. A Review Essay', *Journal of Ecclesiastical History*, 47 (1996), pp. 98-112; Miguel Gotor, *I beati del papa: santità, Inquisizione e obbedienza in età moderna* (Florence: olschki 2002). See also as a general overview on early modern sainthood:

sanctity. Ditchfield, in particular, chooses the failure of the canonisation process of Pope Gregory X to reveal the social and institutional implications surrounding the saint-making procedure. The case study presented in chapter four of my dissertation will actually add the medical implications which probably contributed to the failure of the cause.

Physicians were heard as experts during the canonisation process. No one better than they could understand the natural course of diseases, and discern a natural from a supernatural cause of healing. Joseph Ziegler (1999) has shown how, from the thirteenth-century, medical men have testified as expert witnesses in canonisation trials.⁴⁰ They were expected to identify a possible natural explanation for an alleged miraculous cure. Physicians and surgeons, who personally treated the *miracolato* (the beneficiary of the miraculous cure), were considered the most reliable witnesses, both for their expertise and their social status. However, there is no evidence that physicians appeared in an official legal capacity as medical experts (*periti*) in canonisation trials before the beginning of seventeenth century.⁴¹ The process of canonisation and the role of medical expert in the inquiry of miracle is the subject of the third chapter of my dissertation.

As I explained at the beginning of this Introduction, it is useful to study the concept of the supernatural in relation to the concept of nature, since the supernatural originated from the separation of the divine and the natural in the twelfth century. After this divorce, they both changed. The order of nature became better defined and its course visible. It was intended to be governed by secondary causes, thus independent from the primary cause, which is God. Furthermore, the category of the supernatural totally depended on the natural, since it was the exceeding of the boundaries of the natural that identified the supernatural. This reliance between them is visible in historical sources. It explains what at first sight could be strange to the modern eye, such as the involvement of medicine in the inquiry of miracles. I will explore this topic in Part II of my dissertation, in chapters four and five. Historians

Jean-Michel Sallmann, *Naples et ses saints à l'âge baroque (1540-1750)* (Paris: Presses Universitaires de France 1994).

⁴⁰ J. Ziegler, 'Practitioner and Saints: Medical Men in Canonization Processes in the Thirteenth to Fifteenth Century', in *The Society for the Social History of Medicine*, 12 (1999), pp. 191-225.

⁴¹ Francesco Antonelli, O.F.M. *De inquisitione medico-legali super miraculis in causis beatificationis et canonizationis* (Rome: Pontificium Athenaeum Antonianum 1962).

have considered this issue in different ways. Elena Brambilla, in *Corpi invasi e viaggi dell'anima* (2010), conceives it negatively, as a 'clericalisation of medicine'.⁴² According to Brambilla, medicine in early modern Catholic Europe underwent an involution once Catholic physicians accepted theological theories, especially those related to the discernment of the spirit. For example, the previous medical theory of possession and ecstasy was replaced by a demonological explanation, in which demons instead of natural causes were considered the authors of the phenomenon. By contrast, in *Believe not Every Spirit* (2007), Moshe Sluhovsky claims that, although seventeenth-century theological explanations of demonic possession overshadowed a previous construction of possession as a physiological affliction, it was a process of extension, not substitution.⁴³ Brambilla and Sluhovsky approach the same topic using two different methods. Brambilla identifies the causes of the process which led the early modern evaluation of possession towards the Enlightenment diagnosis of hysteria. Sluhovsky analyses possession and discernment of the spirit as a coherent system not necessarily in relation with the Enlightenment diagnosis of hysteria. Brambilla's conclusion is, in part, a consequence of the method applied. Although her method gives us the chance to trace precisely the process of the reduction of religious experience to morbid conditions, it does not give us the right means to understand early modern Italian medicine.

Andrew Keitt's *Inventing the Sacred* (2005) is more helpful here. Keitt defines the collaboration of early modern medicine with ecclesiastical institutions in Spain as 'fideistic'. The author identifies a 'process of naturalisation' in which Spanish physicians, among others Juan Huarte (1530-1588), explained many aspects of psychology, including ecstasy and revelation, in terms of the Galenic principle of four humors.⁴⁴ However, Keitt claims that medical expertise was not applied case-by-case in trials relating to the pretence of sanctity. There was no individual diagnosis made by medical experts. Rather, a 'naturalist' theory on ecstasy and revelation was applied in courtrooms just to 'destabilize uncritical belief in

⁴² Elena Brambilla, *Corpi invasi e viaggi dell'anima, Santità, possessione, esorcismo dalla teologia barocca alla medicina illuminista* (Rome: Viella 2010), p. 97.

⁴³ Moshe Sluhovsky, *Believe not every Spirit: Possession, Mysticism and Discernment in Early Modern Catholicism* (Chicago: Chicago University Press 2007).

⁴⁴ Juan Huarte, *Examen de ingenios para las ciencias* (Madrid 1575).

supernatural phenomena'.⁴⁵ The goal was not to find a specific natural explanation but to contrast superstition, an approach Keitt labels as medical fideism. By contrast, Bradford Bouley's Ph.D. dissertation (2012) investigates the role of body as a proof of sanctity. He demonstrates that medicine and religion worked together to define the boundaries of the natural in human bodies.⁴⁶

Focusing on the late seventeenth century, two historians have interpreted the role played by physicians in canonisation trials as an expression of scepticism. Fernando Vidal (2007) has examined the appeal to early modern theory of imagination in canonisation trials, in particular in the cases in which the physician Giovanni Maria Lancisi (1654-1720) and the Promotor of the Faith Prospero Lambertini (1675-1758) were involved.⁴⁷ Vidal shows how theology and natural philosophy were cooperating in early modern Rome and how this collaboration had a certain degree of permeability towards new ideas. During the eighteenth century, medicine achieved a significant role in papal patronage. New ideas from Northern Europe were not completely banned in Rome and room was made for those ideas that were not in conflict with Catholic theology.⁴⁸ The second historian is Gianna Pomata (2007), who has examined physicians' opinions on the incorruptibility of the corpse of Caterina Vigri during the final stage of her canonisation process (held in Bologna in 1671). The debate was, in medical terms, about the distinction between incorruptibility and dissection. At the end of the process, it was stated that Caterina's body was no longer as uncorrupted as it had originally been. According to Pomata, this proves 'the new weight that medical opinion had acquired in canonization proceedings'.⁴⁹ Pomata argues that since the appeal to medical experts had been required by law in 1678, a stronger role was allowed 'for medical scepticism on

⁴⁵ Andrew Keitt, 'Visionary Experience, Medical Discourse, and the Inquisition in Spain', in *Sixteenth Century Journal*, 26 (2005), pp. 77-96 (92).

⁴⁶ Bradford A. Bouley, *Dissecting the Holy Body: Between Religion and Medicine in Early Modern Europe*, Phd dissertation 2012.

⁴⁷ Francisco Vidal, 'Miracle, Science, and Testimony in Post-Tridentine Saint-Making' in *Science in Context*, 20 (2007), pp. 481-508 (503).

⁴⁸ Maria Pia Donato, 'L'onore della prova. Il Sant'Uffizio, l'atomismo e i medici romani' in *Nuncius. Rivista internazionale di storia della scienza*, XVIII (2003) 82, pp. 69-87.

⁴⁹ Gianna Pomata, 'Malpighi and the Holy Body: Medical Experts and Miraculous Evidence in Seventeenth-Century Italy', in *Renaissance Studies*, 21 (2007), pp. 568-86 (584).

asserted miraculous evidence'.⁵⁰ Despite the shifting attitude of medicine in the assessment of miracles and pretence of holiness from fideism to scepticism, the focus of my own research is neither on the history of medicine nor on the history of religion alone, but on both. All these studies on medicine and the supernatural (including the preternatural) continue to operate more or less within the dichotomy of science and religion. Thus, in describing the autopsy of a saint, Pomata (echoing Nancy Siraisi here), speaks of the twofold gaze of the physician, at once theological and medical.⁵¹ One of the main efforts of my own research has been to find a proper heuristic tool with which to examine the application of medicine in a theological context.

Content

Indeed, the main challenge of my dissertation has been how to combine the debate on the supernatural in canonisation treatises, with the use that was made of it in a practical context. I found the legal arena of canonisation trials the best site in which to examine the application of the category of the supernatural. And I identified the time frame between the late seventeenth and the early eighteenth centuries as the most representative period in Italy, by which time mathematics and mechanics were commonly used as methods of inquiry in natural philosophy. This particular location, during this particular period, allows me to study the application of the new idea of nature developed by natural philosophy in an institutionalised context within a Catholic country. I was expecting two different reactions. On the one hand, a schizophrenic attitude on the part of canon lawyers, who would apply Aristotle's philosophy in theology and would follow, at the same time, contemporary natural philosophy in physics. That would not have surprised me, since it was a common attitude among Jesuits, many of whom were mathematicians and natural philosophers. On the other hand, I expected the revision of the category of the

⁵⁰ Pomata, 'Malpighi and the Holy Body', p. 570.

⁵¹ Nancy Siraisi, 'Signs and evidence: Autopsy and sanctity in late Sixteenth-century Italy', in *Medicine and the Italian Universities: 1250-1600* (Leiden: Brill 2001), pp.356-80.

supernatural and, consequently, a new classification of miracles, following the changed configuration of nature. In fact, both happened.

When it comes to the investigation of miracles in the context of canonisation trials, the figure who represents this attitude best was the Promoter of the Faith (*promotor fidei*) Prospero Lambertini, future Pope Benedict XIV. As Promoter of the Faith, Lambertini had the role of defending the truth of the Church in canonisation trials, by means of painstaking analysis of the criteria of sainthood of the ‘servant of God’ in question, considering the candidate’s virtues and miracles. As I will demonstrate in the second chapter, Lambertini recognised a discrepancy between the then-current concept of miracle and that detected by medical experts during canonisation trials. As a solution, he proposed a significant revision of the concept of miracle.

The kinds of sources I have consulted to undertake this task consist of both treatises on canonisation procedure published between the seventeenth and eighteenth centuries and the records on actual canonisation trials of the same period, held in Rome. The structure of the thesis reflects my intention to bring together these two kind of sources, and the different approaches their analysis each demands, not an easy task to accomplish. For this reason, my dissertation is divided into two Parts. Treatises are analysed in detail in the first two chapters: theological works in the first chapter and canonisation treatises in the second. Detailed case studies of particular canonisation trials are presented and analysed in the last three chapters. Chapter three also has the function of linking Parts I and II, providing an overview on the canonisation procedure and the roles of the figures who operated within it, such as the Promoter of the Faith, the consistorial lawyer and the medical expert.

The structure of the thesis is also articulated around a second binary divide frequently difficult to unite: religion and science. Following Osler’s advice, I prefer to identify them as theology and natural philosophy.⁵² Regarding theology, in the first chapter I reconstruct the concept of miracle as developed by Augustine, Thomas Aquinas and the Spanish Jesuit Francisco Suarez. They correspond to three crucial periods and turning points: late Antiquity, the Middle Ages and the early modern period. In the second chapter, I explore the revision of the classification of miracles proposed in particular by Lambertini. I argue that, in addition to the desire to avoid

⁵² Osler, ‘Mixing Metaphors’.

discrepancies and contradictions, Lambertini was aware of the urgent necessity of reform within Catholicism, to counteract the denial of the existence of miracles coming from northern European philosophers such as Spinoza. In chapters four and five I focus on natural philosophy, considering the effective application of the new idea of nature to miracle inquiries. Chapter four analyses healing miracles, highlighting the specific role exercised by physicians in detecting whether the boundaries of the natural were exceeded. In chapter five, the focus shifts to resurrections, in which the physician's role was to demonstrate the death of the supposed revenant. As we shall see, Giovanni Maria Lancisi was the most appreciated physician in these early-eighteenth-century canonisation trials. However, my dissertation will not enter into the debate of how much Lambertini was 'enlightened' or Lancisi 'sceptical'. My interest goes beyond these specific figures, to focus on the mental categories they employed to organise and understand the world in which they lived.

In addition to the two parts in which the thesis is structured, I also propose three different levels of reading, running from the first to the last chapter. The first level is theological, tracing the rise of a new classification of miracles. The second is cosmological and epistemological, describing the changing relationship between the natural and the supernatural and the collapse of the category of the preternatural. The third level of reading is institutional, relating this to the Catholic Church and its broader cultural climate. These three levels of reading contribute to link one chapter to another. Above all, this dissertation aims to outline the 'world picture' at the beginning of modernity, through at least one of its constituents: the supernatural.

PART I

Chapter One

Philosophies of Miracle: Augustine, Aquinas, Suarez

The works of Augustine (354-430), Thomas Aquinas (1225-74) and Francisco Suarez (1548-1617) represent three main changes in the history of the concept of miracle within Catholicism. A new concept of miracles also means a new way of perceiving the relationship between God and nature. Therefore, they represent three distinct turns in the history of Christian theology. Nevertheless, due to their authoritative power, they will frequently appear quoted together in early modern canonisation treatises, as if they were sharing the same concept of miracles--especially the works of Augustine and Aquinas. However, a comparison between Augustine and Aquinas should imply some caution for modern historians, since between the former and the latter seven hundred years have passed, which saw the collapse of the Roman Empire and the spread of Christianity throughout Europe. In fact, the context in which they both evolved was significantly different. Augustine had to counteract the persistence of pagan traditions and thwart new orientations within Christianity, such as the Donatists and Pelagians. Aquinas had the arduous task of defending God's word from the appearance and growth of Arabic philosophies at European universities, such as Avicenna's (980-1037) and Averroes's (1126-98).⁵³ Besides, whereas Aquinas was influenced by Aristotle, Augustine was under the sway of Plotinus. Although Augustine and Aquinas were both Christians, different contexts, different tasks and different landmarks make them two deeply diverse authors. Nevertheless, they are frequently quoted in early modern treatises on miracles, as they shared a similar cosmology.

The same occurs for Suarez. His *Disputationes metaphysicae* of 1597 (*Metaphysical disputations*) is considered a crucial turn in the history of metaphysics

⁵³ For a biography on Augustine, among others see: Peter Brown, *Augustine of Hippo* (London: Faber 1967). For a biography on Aquinas see: Gilbert Keith Chesterton, *St. Thomas Aquinas: the Dumb Ox* (London : Hodder & Stoughton 1943).

from an Aristotelian to a modern system of knowledge.⁵⁴ He is also considered one of the authors with a misleading interpretation of Aquinas's theology, which characterises sixteenth-century Scholasticism.⁵⁵ Nevertheless, Prospero Lambertini quotes him, along with Augustine and Aquinas, regarding the concept of miracle. The problem is that early modern theologians were not interested in grasping the real thought of the author quoted, as modern philologists usually do, but instead their purpose was mainly apologetic, the task of their writings being to show the continuity and consistency of Christian theology against the discrepancies of Protestant Reformers.⁵⁶

The purpose of this chapter is twofold. First of all, we will disentangle these three different philosophies on miracle in order to understand better the innovations and influences which distinguish the Catholic debate over miracles during the seventeenth and early eighteenth centuries. Therefore, in this chapter I am providing the tools that will help to understand the complexity of the argumentation over miracles within Catholicism and between Catholics and Protestants. Secondly, this chapter will reconstruct the still unwritten history of the concept of miracle within Catholicism, from Augustine to Suarez, as the story of the relationship between nature and the divine. It is crucial to understand the role played by the new idea of nature in the early modern concept of miracle, as it will be treated in the second part of this thesis.⁵⁷ The history of the relationship between nature and the divine, which directly influences the history of the idea of miracle within Scholasticism, is the story of a separation. It begins with Aquinas, who tries in every way to smooth over the opposition between the natural and the supernatural, after he adopts the

⁵⁴ Jean-François Courtine, *Suarez et le système de la métaphysique* (Paris: Presses Universitaires de France 1990).

⁵⁵ Henri de Lubac, *The Mystery of the Supernatural* (New York: The Crossroad Publishing Company 1998).

⁵⁶ Domenico Ferraro, *Itinerari del volontarismo. Teologia e politica al tempo di Luis de Leon* (Milan: Franco Angeli 1995), pp. 54-75.

⁵⁷ I am aware of two attempts to write a history of the concept of miracle: one by the Jesuit John A. Hardon (1914-2000), the other by the Protestant theologian Robert M. Grant (1917-2014). See: R. M. Grant, *Miracle and Natural Law in Graeco-Roman and Early Christian Thought* (Amsterdam: North-Holland Publishing Company, 1952); John A. Hardon, 'The Concept of Miracle from St. Augustine to Modern Apologetics' *Theological Studies*, 15 (1954).

Aristotelian idea of nature, and it ends with Suarez who, albeit hypothetically, introduces the concept of pure nature entirely purged of any supernatural ends.

For each of the three authors I am going to analyse two elements of their philosophies of miracle, namely whether or not miracles are considered as events against nature and whether or not they can be performed by angels. This will give the reader the necessary tools to approach my considerations on early modern treatises on canonisation in the next chapter and to understand better the role played by laws of nature in the new concept of miracle, which will be the topic of the second part of this thesis. In the first section of this chapter, I will deal with Augustine's conception of miracles as a natural event and with the possibilities of angels performing miracles. The second section will deal with Aquinas's definition of miracle as contrary to nature and the denial of angelical miracles. The final section is concerned with Suarez's idea of divine law and the claim for miracles performed by angels.

1.1 Augustine and miracles as natural events

Augustine does not deal with miracles in a specific book, but refers to them sporadically. Essentially, miracles are explored in five treatises: *On the Profit of Believing*, *Reply to Faustus the Manichean*, *On the Holy Trinity*, *On the Literal Interpretation of Genesis* and *The City of God*.⁵⁸ In each of these, miracles are treated with reference to the topic of each individual treatise, all were written over a period of thirty years. In *On the Profit of Believing*, for instance, Augustine argues that the miracles of the apostles, necessary for the assertion of the faith in Christ, had ceased, since they were not necessary to further convert already Christianised people.⁵⁹ By contrast, in *The City of God*, written after the sack of Rome in 410, a list of miracles is reported as occurring while Augustine was alive.⁶⁰ Sometimes in the

⁵⁸ More specifically: *De Utilitate credendi* (16.34); *Contra Faustum Manichaeum* (26. 3); *De Trinitate* (3.5-10); *De Genesi ad litteram* (6.14.25; 9.16-18); *De Civitate Dei* (10.12; 21.8.5; 22.8.1).

⁵⁹ Augustine, 'On the Profit of Believing', in *Nicene and Post-Nicene Fathers*, Philip Schaff (ed.) vol. 3 (Buffalo: The Christian Literature Co. 1886-90), p. 354 (16.34).

⁶⁰ Augustine, *City of God*, trans. Marcus Dods (Edinburgh: T & T Clark 1871) vol. 2, pp. 484-99 (22.8).

same treatise Augustine seems to contradict himself by saying the opposite in a following passage, keener to persuade the reader than give clear-cut definitions.

It is probably for these reasons that scholars swing between two main positions regarding Augustine's idea of nature and miracles. Some, whom we may call 'exclusionists', find in Augustine a separation between an ordinary idea of nature and the miraculous.⁶¹ Others, whom we may call 'inclusionists', consider Augustine's idea of nature to be a compound of ordinary and extraordinary events.⁶² The exclusionists claim that Augustine develops a cosmology of a twofold order of things in his writings, in which nature is sharply separated by divine intervention. The inclusionists believe that, in Augustine, there is an empirical dimension in which the natural and the miraculous do not coincide, though they are not substantially different. The crucial issue is Augustine's concept of 'seminal reasons' (*rationes seminales*), which he borrows from Plotinus and the Stoics, to use as an expedient to solve a problem of inconsistency in the first book of Genesis.⁶³ The Alexandrian school of theology understood creation to have occurred instantaneously and simultaneously from the beginning. The first book of Genesis reports the act of creation as a temporal unfolding of causal sequences. The *rationes seminales* resolve this inconsistency. God suddenly created those seminal reasons which were then

⁶¹ Hardon, 'The concept of miracle from st. Augustine to modern apologetics', *Theological Studies* 1 (1954), pp. 229-57; Charles Boyer, 'la notion de nature chez saint Augustin' *Doctor communis* 8 (1955), pp. 65-76; Id., *Essais anciens et nouveaux sur la doctrine de saint Augustin* (Milan: Marzorati 1970) pp. 215-28; John A. Mourant, 'Augustine on miracles' *AugSt*, 4 (1973) pp. 103-27.

⁶² J. Martin, *Saint Augustin*, (Paris: Felix Alean 1901) pp. 319-325; Thomas A. Lacey, *Natural, Miracle and Sin: a study of saint Augustine's conception of natural order* (London: Longmans-Green 1916); Grant, *Miracle and natural law*, pp. 215-20; Paul de Vooght, 'La notion philosophique du miracle chez saint Augustin dans le *De Trinitate* et le *Genesis ad litteram*', *RThAM* 10 (1938) pp. 317-47; Chris Gousmett, 'Creation, order and miracles according to Augustine' *EvQ* 60 (1988) pp. 217-40.

⁶³ For the concept of 'seminal reason' in Augustine see: Charles Boyer, 'La théorie augustinienne des raisons séminales' in *Miscellanea agostiniana* (Rome: Ordine ermitano di s. Agostino, 1931), t. II, pp. 795-819 ; François-Joseph Thonnard, 'Les raisons séminales selon saint Augustin', in *Actes du XI congrès international de philosophie* (Louvain : Nauwelaerts, 1953), t. XII, pp. 146-152 ; Jules M. Brady, 'St. Augustine's theory of seminal reasons', *New Scholasticism*, XXXVIII (1964), pp. 141-158; Gerard Verbeke, *The Presence of Stoicism in Medieval Thought* (Washington, D.C.: The Catholic University of America Press, 1983); Robert A. Markus, 'Augustine. God and Nature' in A.H. Armstrong (eds) *Later Greek and Early Medieval Philosophy* (Cambridge: Cambridge University Press 2008) pp. 395-405.

responsible for the growth through time. Seminal reasons are also used to explain extraordinary events. As in the previous case, the first concern of Augustine is to preserve the fact that the act of creation was one and unique and that nothing new could have been created afterwards. He returns to the concept of *rationes seminales*. At the moment of Creation God did not only implant in things those *semina* that let them grow and generate similar things; he implanted also *semina* which could produce something different from ordinary growth. These *semina* were unknown to human beings, only angels and demons, and of course God, knew where they were and how to use them. This theory is reported in a frequently quoted passage of ‘The literal meaning of Genesis’, where Augustine explains the ordinary and extraordinary generation of things.

The ordinary course of nature in the whole of creation has certain natural laws [...]. Other this whole movement and course of nature there is the power of the Creator, who is able to do in all creatures something other than what the seminal reason would bring about but not something that he himself had not originally made possible to be done by him in them. [...] The formative principles of these and similar modes of being are not only in God but have also been inserted by him into creatures and joined to them. But a tree which has been cut down, dried out, polished, without any root or earth or water, should suddenly flower and bring forth fruit [...]. God gave to the substances which he created the possibility that these actions could happen in them [...]; nevertheless according to another mode of being he gave to these creatures the determination that these occurrences would not happen by virtue of natural forces but by virtue of the fact that they had been created so that their nature would be under the influence of a more powerful will.⁶⁴

and

God, therefore, has in himself the hidden causes of certain things which he had not placed in creatures, and he makes them operative not in the work of his ordinary providence by which he brings things into being, but in that work

⁶⁴ St Augustine, *The Literal Meaning of Genesis*, trans. by John Hammond Taylor (New York; Mahwah: Paulist Press 1982) vol. 1, p. 93 (9.17.32).

by which he administers according to his will the things that he has created as he has willed.⁶⁵

The ‘exclusionists’ infer from these passages that, according to Augustine, there are seminal reasons located in God alone, unknown to human beings and excluded from natural order. Consequently, there is a twofold order of things, one ordinary and properly natural and another which depends exclusively on God’s will. They find in Augustine an anticipation of the Scholastic separation between the natural and the supernatural. By contrast, ‘inclusionists’ argue that since Aristotle had not yet been rediscovered, it would be anachronistic to expect in Augustine a concern for nature itself loose from the realm of God and with a different aim than to glorify him. Nature itself only became the focus of theologians’ and philosophers’ debates following the translation of the Aristotelian treatises (as we shall see in section 2). Asking whether miracles happened in or out of the order of nature, would be anachronistic, since the context within which Augustine developed his philosophy did not contemplate an organic and independent idea of nature, defined from the rest by some boundaries or regularities.

In my opinion, if we do not stress the importance of the different idea of nature in Augustine’s thought, as not separated from the divine, then we will not understand (first of all) the role played by the new attitude towards nature in the thirteenth-century concept of miracle and (secondly) how the seventeenth-century new idea of nature influenced the early modern debate over miracles. In Augustine, miracles are defined by the boundaries of human knowledge. In Aquinas, as we shall see, they are defined by the boundaries between God and created nature. In Suarez, they will be defined exclusively by the boundaries of visible and corporeal nature.

I will now propose my view on the usefulness of ‘seminal reasons’ in relation to the meaning of miracles as not contrary to nature and performed by God and angels. Another purpose displayed by seminal reasons is to include the extraordinary in the ordinary course of nature, solving two issues: that miracles are not new creations and that they guarantee that any exception which could occur in nature by God’s will, will never be against the course of nature. All exceptions are already to

⁶⁵ St Augustine, *The Literal Meaning of Genesis* (9.18.33).

be expected as causal reasons previously included in things by God.⁶⁶ Augustine states that God never acts against nature, ‘for whatever is done by him who appoints all natural order and measure and proportion must be natural in every case’.⁶⁷ However, continues Augustine, there is nothing wrong with saying that God does things contrary to nature, when it is contrary to what we know of nature.

‘For we give the name nature to the usual common course of nature; and whatever God does contrary to this, we call a prodigy, or a miracle. But against the supreme law of nature, which is beyond the knowledge both of the ungodly and of weak believers, God never acts, any more than He acts against Himself’.⁶⁸

In his treatise on Manichaeism, Augustine argues that miracles could not have been against nature, since they would be against God, but they are against the knowledge of nature held by humans, causing witnesses to marvel at them. The second point is whether, according to Augustine, angels could perform miracles. Augustine claims that, due to the subtlety of their body, angels know where God placed the *semina* during Creation, and using these seeds, they could produce something to impress human beings. Angels and demons are spiritual creatures able to perform miracles by manipulating this occult stuff (*semina*) in a way that humans could never do.

The will of an angel, however, which gives obedient service to God and carries out his commands, is able to work on things subject to him, using them as a kind of matter and employing forces of nature, so that something is created in time in accordance with the uncreated formative principles in the word of God or in accordance with the formative principles in the works of the six days.⁶⁹

⁶⁶ St Augustine, *The Literal Meaning of Genesis* (6.14.25).

⁶⁷ Aurelius Augustine, *The Writings Against Manicheans and the Donatists*, Philip Schaff (ed.), first edition 1887 (Ontario: Devoted Publishing 2017) part. 1, p. 353 (26.3).

⁶⁸ Augustine, *The Writings Against Manicheans and the Donatists*, p. 354 (26.3).

⁶⁹ St Augustine, *The Literal Meaning of Genesis*, vol. 2, pp. 89-90 (9.15.28).

Augustine makes a significant analogy between the work of angels and demons and the work of artisans, such as farmers and medical doctors. Just as farmers know how to grow grain, and physicians know how to compound plants to cure diseases, so good and bad angels know the occult property of things that are hidden to human beings. However, none of them are the creators of the power that made those things happen; they both still have to operate according to time and casual reasons. In fact, artisans and angels could produce something new from something that existed previously; what they could not do is create something out of nothing, which is God's prerogative alone. The analogy between the work of artisans and angels reveals that the capacity to perform miracles is only a matter of knowledge. This will be a crucial issue in the early modern debate of miracles, especially when art will be revalued and equated to the idea of nature during Renaissance.⁷⁰ Augustine's definition of miracle is something that causes people to wonder, since it is beyond the expectation and the ability of those who witness it (*supra spem vel facultatem mirantis*). A miracle-worker is a great artisan, operating according to God's will. In fact, knowledge, and not arbitrary, power is the way in which God operates in the Augustine's Neoplatonic world.

For he is all-powerful not by arbitrary power but by the strength of wisdom, and in the course of time he does with each thing what he has originally made possible in it.⁷¹

In conclusion, according to Augustine, a miracle-worker acts as an artisan manipulating matter to produce something new. The metaphor of miracles as high artefacts, made by artisans with great knowledge and skill, will last for centuries in theological treatises as a potential definition of miracles. In Aquinas, even though the possibility of the performance of a miracle is restricted to God, the chance that angels could also perform miracles would never be completely denied.

Augustine used the term 'miracle' with different meanings and sometimes different terms with the same meaning for something miraculous. The word 'miracle' derives from the Latin *miraculum*, which comes from the verb *miror*, to marvel. Accordingly, Augustine uses it to identify a range of several events in which

⁷⁰ See the last section of this chapter and chapter five.

⁷¹ St Augustine, *The Literal Meaning of Genesis*, p. 93 (9.17.32).

man wonders. At the same time, he uses different terms such as *mirabilia* and *magnalia* to qualify something extraordinary. The absence of a distinction between miracles and marvels dwells in the definition of miracle itself, as something which causes marvel in the observer. Since miracles are not produced by God alone, but also by angels and demons, the problem consists in how to distinguish the work of one from the work of the others. Indeed, Augustine states that angels and demons, due to the thinness of their bodies and of their senses, know where the *semina* were implanted at the time of Creation. This gives them the ability to work certain kinds of marvels and prodigies. What distinguishes the works of demons from the work of God is that the former cannot do anything without the permission of the latter. Consequently, whatever demons do is always in accordance with God's will.⁷² Augustine gives an example recounting the episode of Exodus in the Bible, when the Egyptians suffered from the third plague, consisting of an invasion of mosquitoes (Exodus 8:16). The same magicians, who were previously able to turn sticks into snakes, could not send the mosquitos away. Therefore they stopped and said: 'this is God's finger'.⁷³

What must not be neglected in Augustine's cosmography is the role played by mystery. It is mystery that measures the distance between God and us. Even if the order of things is partially unknown to man, he has the chance to thin away the mist between the world and himself: the better he participates in the eternal light, the better he will know what is possible and what is not. By contrast, the more he departs from the eternal light, the more he will be surprised and astonished by the events that happen.⁷⁴ The theory of knowledge of God is closely tied up with the theory of miracle, since miracles are nothing more than man's ignorance of nature as a whole, as well as the mystery which ties men to God.

Augustine's influence would last for centuries, well into the present day, frequently claimed by Protestant Reformers as one of the real interpreters of God's word before the corruption of Scholasticism and the revival of Aristotle. This explains the various attempts made by early modern Catholic theologians to propose

⁷² Augustine, *The Trinity*, trans. Edmund Hill (Hyde Park, New York: New York City Press 1991) pp. 135-36 (3.8.13); see also *ibid.* *City of God*, vol. 2, pp. 428-29 (21.8.5), for an attempt at clarification of terms such as *monstra*, *ostenta*, *portenta*, *prodigia*.

⁷³ Augustine, *The Trinity*, pp. 134-35 (3.7.12).

⁷⁴ Augustine, *The Writings Against Manicheans and the Donatists*, p. 353 (26.3).

Aquinas as a follower of Augustine. However, every time Augustine is mentioned by an early modern author, we should bear in mind the completely different ordering of the relationship between God and nature that stands behind it.

1.2 Aquinas and miracles contrary to the order of nature

This section is structured around two main points, as with the previous one. Firstly, I will deal with the concept of miracle with reference to the relationship between God and nature. Secondly, I will deal with the concept of miracle in terms of the role played by angels, which are the intermediate creatures between God and corporeal nature. However, since Aquinas developed a much more systematic thought compared to Augustine's, we will examine this in a more detailed fashion in order to prevent confusion. But before we do that, a brief historical introduction will help us avoid thinking of Aquinas' concept of miracle as unique and will correctly place it within the Scholastic effort to combine Aristotelianism and the Christian theology of miracles.

The early translations of Aristotle's works into Latin generated new approaches towards the created world. Nature became readable and autonomous, ruled by secondary causes. Before the middle of the twelfth century, only a few Aristotelian works were available in Latin translation. Boethius, a philosopher of the early sixth century, planned to translate the entire *corpus aristotelicum*, however only three works were completed, known as the *logica vetus*, they would dominate the study of logic until the twelfth century: the *De interpretatione*, the *Categories*, and Porphyry's introduction to Aristotelian logic, the *Isagoge*. They were integrated in early universities with three translations, which were recovered and known as *logica nova*: the *Sophistici elenchi*, the *Topics* and the *Prior analytics*. Even if Boethius translated the *Posterior analytics*, this treatise came last and became a part of the Aristotelian *Organon* after James of Venice translated it in 1125-50. Scholars agree that Aristotle's logic formed the foundation of the curricula of the early universities.⁷⁵ While new works of Aristotle were discovered and translated, such as

⁷⁵ On the history of medieval university see among others: Hastings Rashdall, *The Universities of Europe in the Middle Ages* (Oxford: Oxford University Press 1936) 3 vols; Jacques Verger, *Les*

De anima, *Metaphysics* and his biological works, Arabic commentaries of Avicenna and Averroes on Aristotle began to be available at universities. Since translations of Aristotle were almost all literal, word for word, from Greek to Latin, and given the complexity of the Aristotelian text, they were frequently studied by students through the commentaries that eminent scholars had previously written.

In thirteenth-century Paris, students and masters joined together into a corporation to defend their rights and claimed to the government of the city the right of learning. The new universities inevitably conflicted with the Church, which controlled the teaching of theology in the city. In 1215 the statutes of the University of Paris were edited under the supervision of the pope Innocent III. Whereas Aristotle's works, known as the *Logica nova*, were confirmed in the university curriculum, the translations of the natural books and the *Metaphysics* were explicitly banned. The onset of universities was dominated by Avicenna's commentaries on Aristotle, which were later challenged by those of Averroes. Accordingly, there was an urgent need for Christian commentaries on the *corpus aristotelicum*. Theologians belonging to the Franciscan and Dominican orders were the first to undertake this effort.

Before proceeding with Aquinas, I would like to mention the theory of miracle developed by the Franciscan Alexander of Hales (1185-1245), who taught theology in Paris from 1220. The reason is twofold. I want to stress the similarities between his and Aquinas's theory of miracle due to the choice to reorganise theology according to the metaphysics of Aristotle. Moreover, Alexander of Hales was probably the first to use the word supernatural.⁷⁶ My purpose is to minimise the misleading role given to individuals by historians in the development of ideas and to emphasise instead the role played by the cultural context that led two antagonistic Orders to develop a similar theology of miracle.

universités au Moyen Age (Paris: PUF 1973); Jacqueline Hamesse (ed.), *Manuels, programmes de cours et techniques d'enseignement dans les universités médiévales* (Publication de l'Institut d'études médiévales, Louvain-la-Neuve 1994); Walter Rüegg, *A History of the University in Europe* (Cambridge: Cambridge University Press, 1992).

⁷⁶ Joseph Schwane, *Histoire des dogmas*, trans. (from the German) by A. Degert (Paris: Beauchesne 1903-1904) 6 vols, p. 73.

The Franciscan Order was closed to Augustine's thoughts, nevertheless they received and developed some of Aristotle's concepts.⁷⁷ Indeed, Alexander of Hale's idea of miracle differs partially from Augustine's. Firstly, he distinguishes the boundaries between the natural and the supernatural; a miracle is defined as a supernatural operation (*opus supra naturam*).⁷⁸ Secondly, he clearly separates miracles from marvels: only God can work miracles, angels can solely prepare and organise matter for an imminent miracle, while demons only work marvels.⁷⁹ Thirdly, Alexander frequently uses the expression *contra naturam* to define miracles, adding that they can happen against nature in the sense of matter or in the sense of form, suggesting that the latter is the real miracle.⁸⁰ Finally, he identifies two types of miracles, one which occurs through the transformation of substantial forms (*per transmutationem formarum substantialium*), the other without any substantial transformation (*sine transmutatione substantialium*). The former belongs to miracles which cannot happen in nature, such as the biblical transformation of the rods into snakes, which is a substantial transformation from vegetal to animal gender; to the latter belong recoveries which hardly could happen naturally, such as healings from blindness.⁸¹ Beside the concept of nature as something autonomous, Aristotelian terminology such as matter, form and substance appeared, which permitted a reconsideration of the concept of miracle as a specific event, with precise hallmarks. This early subdivision of miracle would last until early modern treatises on canonisation, beside the tripartition of miracles developed by Aquinas.

From the outset, I would like to clarify my position about the comparison of Augustine and Aquinas. I place myself in line with those historians who distinguish the two metaphysics as antithetical, since one rests on the Neoplatonic and the other

⁷⁷ On the influence of Aristotelianism in the Franciscan school of thirteenth century: Jacques C. Bougerol, 'Dossier pour l'étude des rapports entre saint Bonaventure et Aristote' in *Archives d'Historie Doctrinale et Littéraire du Moyen Age*, 48 (1973), pp. 135-222; Marco Arosio, *Aristotelismo e teologia: da Alessandro di Hales a San Bonaventura*, (Munich: Liemar 2012).

⁷⁸ Alexander of Hales, *Summa Theologiae* (Coloniae Agrippinae : sumptibus Ioannis Gymnici sub Monocerote 1622) vol. II, quaes. XLI, art.1, p. 142 .

⁷⁹ Alexander of Hales, *Summa Theologiae*, art.2, p. 143.

⁸⁰ Alexander of Hales, *Summa Theologiae*, art.3, p.143.

⁸¹ Alexander of Hales, *Summa Theologiae*, art.4, p. 143.

on Aristotelian philosophy.⁸² Belief in the uniformity of Augustine's and Aquinas's philosophies and theologies has a long tradition. It starts in the Middle Ages, when the theologian Peter Lombard (1100-60) attempted to bring the different ideas of the earlier church Fathers into one tradition. In the middle of the twelfth century in Paris, the centre of Catholic Christianity at the time, Lombard composed *The Sentences*, a theological text in which he collected the sentences of patristic and early medieval authors regarding the most important religious issues.⁸³ Lombard's *Sentences* is not a simple collection of earlier sentences, but an attempt to harmonise Christian tradition using dialectics. The treatises were approved by the Lateran Council in 1215, and were immediately recognised as a unique *auctoritas* in the teaching of theology at universities. The commentary on the *Sentences* became mandatory for students to complete their studies and remained central to the theological curriculum, until it was replaced by Thomas Aquinas' works in the sixteenth century.⁸⁴

Returning to the question of miracles, whereas Augustine develops the concept of *semina rationales* to avoid any contradiction between the action of God through miracles and the order of nature, Aquinas borrows the Aristotelian concept of secondary causes, which guarantees a self-sufficient nature disjoined from the divine order. According to Aquinas, after the Creation, God delegated the capacity to produce effects independently from his power to the universe. In Aquinas's cosmology God is the pure form and the pure act, who does not need matter or

⁸² For an antithetical understanding of Augustine and Aquinas see: Etienne Gilson, *Porquoi saint Thomas a critiqué saint Augustine* (Paris: Vrin 1986), originally in *Archives d'histoire doctrinale et littéraire du moyen age*, 1 (1926) pp. 2-127; Robert Pasnau 'Henry of Ghent and the Twilight of Divine Illumination' in *Review of Metaphysics* 49 (1995) pp. 49-75, who changed his mind in Id., *Thomas Aquinas on the Human Nature*, (Cambridge: Cambridge University Press 2002) pp. 302-7; Emanuela Scribano, *Angeli e beati. Modelli di conoscenza da Tommaso a Spinoza* (Bari: Laterza 2006) pp.3-67. For a complementary understanding of Augustine and Aquinas see: Marie-Dominique Chenu, O.P., *Towards understanding St. Thomas*, trans. A.M. Landry, O.P. and D. Hughes, O.P. (Chicago: Henry Regnery 1963); Jean-Pierre Torrell, *Saint Thomas Aquinas*, trans. by R. Royal (Washington DC: The Catholic University of America Press 1993) 3 vols; Matthew Dauphinais, David Barry, Michael Levering (ed.) *Aquinas the Augustinian* (Washington DC: Catholic University Press 2007).

⁸³ Peter Lombard, *The Sentences*, Trans. G. Silano (Toronto: Pontifical Institute of Medieval Studies, 2008).

⁸⁴ Philipp W. Rosemann, *The Story of a Great Medieval Book: Peter Lombard's Sentences* (Peterborough, Ontario: Broadview Press 2007).

something potential to exist; he is independent from the world he created and from its operations.⁸⁵

Aquinas's created universe consists of several secondary causes, from the lower level (the earthly world), to the upper level (the heavenly world). Things from earth are strictly related to the planets in heaven by a chain of causes and effects: the upper cause produces the effect at a lower level, which in turn is the cause of a lower effect and so on. Since the upper cause contains the lower, the flux of movement goes in one direction, imperatively from up to down. There is no chance of a bottom-up movement, since any of these would be contrary to the course of nature. The only way it could happen would be by God's will. Although nature has been created by God, it works independently from him; it is self-ruled through the secondary causes above described above. Accordingly, there are two orders of things in Aquinas's cosmology, one ruled by nature and the other ruled by God alone.

Within this twofold order of things, Aquinas develops his theory of miracles. He maintains the literary meaning of miracle as something extraordinary which fills its witnesses with wonder. However, miracles are no longer considered natural events but something contrary to the course of nature. The definition of miracle as something against the order of nature is crucial in Aquinas writings. Although Aquinas's theory of miracles is more elaborated and more systematic than Augustine's theory, there are still some inconsistencies if we compare how it is treated in the different treatises he wrote throughout his life. Thus, the best way to analyse it is chronologically, following its development through Aquinas works.⁸⁶

The first treatise in which Aquinas handles miracles is the *Summa contra gentiles* (1259-65).⁸⁷ In this work, Aquinas denies the possibility of understanding miracles as events against nature. He apparently follows Augustine, claiming that miracles could never be against providence which is the order in which God himself is included. Nevertheless, they could be against the common order of natural things,

⁸⁵ John F. Wippel, *Metaphysical Themes in Thomas Aquinas II*, (Washington: Catholic University of America Press 2007) pp. 172-93.

⁸⁶ For a chronological presentation of Aquinas philosophy see: Pasquale Porro, *Tommaso D'Aquino. Un profilo storico-filosofico* (Rome: Carocci 2012).

⁸⁷ Porro, *Tommaso D'Aquino* , pp. 152-53.

simply because God retains power over the order of nature.⁸⁸ In this case, miracles are defined as everything that happens outside the order of things. They are called miracles because they inspire amazement, since their cause is hidden, according to God's will. Aquinas recognises three different degrees of miracles here. The highest rank belongs to events which nature could never bring about: such as reversing the course of the sun or making mountains move. The second degree corresponds to events that nature could do but not in that order: it is natural for man to live and to see, but not coming to life after death, or to recover sight after blindness. The third degree concerns what is usually done by natural causes, but in this case without them: a person with fever can be cured naturally, but in the case of a miracle, he is cured by divine will.⁸⁹

The second treatise in which Aquinas deals with miracles is *The Power of God* (1265-6).⁹⁰ Aquinas opens the issue of miracle with the question of whether God could do anything beyond natural causes (*praeter causas naturales*), against nature (*contra naturam*) or against the order of nature (*contra cursum naturae*).⁹¹ He replies by quoting a passage from Aristotle's *Metaphysics* (bk. 8, ch. 5) to which Aquinas adds two crucial words: 'according to nature' (*secundum naturam*). This distinction will become an axiom for sixteenth- and seventeenth-century definitions of miracle as an event contrary to the course of nature: 'There is no return from privation to habit according to nature'.⁹² He rebuts three different schools and philosophers, who believe that nothing can happen contrary to the course of nature. Firstly, the Presocratics, who think that corporeal things do not derive their existence from any higher cause; secondly, Avicenna, who says that God is the cause of all things by means of his intellect; thirdly, the Neoplatonics, who state that God produces things by natural necessity, hence confined within the order of nature. For

⁸⁸ Thomas Aquinas, *Summa contra gentiles*, trans. Vernon J. Bourke (Notre Dame: University of Notre Dame Press 1975) bk. 3, part. 2, chaps. 98-99.

⁸⁹ Aquinas, *Summa contra gentiles*, bk. 3, part. 2, chaps. 98-99.

⁹⁰ Porro, *Tommaso d'Aquino*, pp. 250-251.

⁹¹ Thomas Aquinas, *On the Power of God*, trans. Richard J. Regan (Oxford-New York: Oxford University Press 2012), q. 6, art. 1.

⁹² 'A privatione in habitum non potest fieri regressus secundum naturam', in *ibid.*, *sed contra*. For an explanation on the meaning of the Aristotelian axiom in early modern treatises on canonisation see chapter five.

each of those philosophical traditions, it is inconceivable that something could occur contrary to the order of nature, since God belongs to the same natural order. On this topic, Aquinas's cosmology represents an absolute novelty. He claims that the Presocratics are wrong because they do not believe in a supreme being; Avicenna is wrong because he believes that God created the universe through divine intellect; finally, that the Neoplatonics are wrong because they believe that all which belonged to God is ruled by necessity. On the contrary, Aquinas claims that there is no intermediary between God and nature and that God does not act by natural necessity. Consequently, God can act against nature because nature is no longer related to him after the Creation. God can act against nature, because the order of things is twofold: one is ruled by necessity, the secondary causes, the other is ruled by God's will.⁹³

In *The Power of God*, Aquinas classifies miracles into three different types, which correspond to three different degrees according to how far they are from the order of nature. The upper rank is held by miracles above nature (*supra naturam*), 'when God produces an effect which nature is wholly incapable of producing'. This can happen in two ways: firstly, 'by inducing a form into matter which nature is utterly unable to induce'; secondly, 'when nature, although able to induce a particular form into some matter, is unable to induce it into this particular matter: nature is able to produce life, but not to produce it in a corpse.' The second type of miracles is defined as against nature (*contra naturam*), 'when nature retains a disposition contrary (*contraria dispositio ad effectum*) to the effect produced by God'. For example, when it prevents someone's death. The last type of miracles is identified when something happens beyond nature (*praeter naturam*), when it produces an effect that nature can normally produce, but not in that manner: as in the case of someone suddenly cured from a disease that would have take a long time to heal.⁹⁴ God is at the same time the first cause on which all depends, but from which the system he created is not depending. Natural order works in such a way that an agent with considerable power can only produce an effect in proportion to its power. Food, for example, cannot directly nurture the body; it has first to be transformed into blood. Water cannot directly turn into wine, it has to go through stages: the soil,

⁹³ Thomas Aquinas, *The Power of God*, q. VI, art. 1.

⁹⁴ All quotes belong to the same paragraph: *Ibid.*, q. VI, art. 2, ad tertium.

the plant, and craftsmanship. God, acting through his will, could produce wine directly from water, without using any secondary causes.

The *Summa theologiae*, the first part of which was written simultaneously or immediately after *The Power of God*, is the last of Aquinas' treatise to deal with miracles.⁹⁵ Aquinas maintains a similar tripartition of miracles as in the previous treatise, but organises them into different degrees. He still classifies them using the power of nature, yet he adds a third class of miracles between the current two classes found in Alexander of Hales: the first degree of miracles includes those which exceed nature according to the substance (*quantum ad substantiam facti*), such as the sun retroceding its course. The second degree happens when a fact surpasses the power of nature, not in relation to the fact produced, but to the subject in which is produced (*quantum ad id in quo fit*), as in the case of resurrection. The third degree occurs when the fact produced surpasses the power of nature according to the way it is produced (*quantum ad modum et ordinem faciendi*), like someone immediately cured from fever.⁹⁶ In all three classes of miracles the paradigm is nature: Aristotle's nature, which is ruled by secondary causes. In Augustine, nature can never be the point of reference for a theory of miracle since miracles are included into it. Furthermore, God is linked to nature by necessity as its first cause, and all nature is included in God and ruled by him. Accordingly, the paradigm through which miracles are identified is not nature, but man's ignorance of the hidden causes of nature.

In conclusion, for Aquinas, God could act contrary to the course of nature, which is ruled by secondary causes. However, he could never act against nature as providence which also includes the divine order. The classifications of miracles displayed in the last two treatises would be adopted in early modern canonisation trials. Some canon lawyers would try to modify them for a better assessment of miracles, while others would ignore them on the ground of theological disagreements, as we will see in the next chapter.

⁹⁵ Porro, *Tommaso d'Aquino*, p. 251.

⁹⁶ Thomas Aquinas, *The Summa theologica*, trans. Fathers of the English Dominican Province (Chicago-London-Toronto-Geneva: Encyclopaedia Britannica, Inc. 1952) vol.1, p. 545 (1.105.8).

The second point that I wish to analyse is the role of angels in Aquinas's philosophy of miracles.⁹⁷ To understand whether angels and demons have the chance to produce miracles in Aquinas's philosophy, we have to begin by analysing the structure of Aquinas's cosmography. Aquinas's definition of miracle as something that exceeds the order of the whole of created nature⁹⁸ will become a standard definition for early modern canon lawyers writing on canonisation. The Latin adjective *totus* reveals that miracles cannot just partially surpass corporeal nature but have to exceed the entire order. Created nature is, in fact, made up of two orders: the natural and the preternatural. The latter is inhabited by spiritual and invisible creatures, such as angels and demons. Demons are fallen angels, which maintain the power of spiritual creatures, but which are subordinate to angels, since the latter are closer to divine grace.⁹⁹ The preternatural is necessary for the perfection of Aquinas's cosmology. According to Aquinas, there is always a relation of similitude between cause and effect, in the way that heat enables something to get warm. For this reason, there is a relation of analogy between creation and its creator: 'God produces the creature by His intellect and will. Hence the perfection of the universe requires that there should be intellectual creatures'.¹⁰⁰

Following the principle that like begets like, Aquinas develops a cosmography that gradually descends by degree from the spiritual to the corporeal. Since the preternatural order is superior and contains the natural order, angels and demons have equal power towards human beings since they belong to the same order. The kind of power that spiritual creatures hold over corporeal creatures depends and has its limits inscribed within Aristotelian philosophy. The key concept in order to understand the limits and possibilities of the power of angels and demons is known as hylomorphism. It is an Aristotelian neologism used to describe what a

⁹⁷ For Medieval angelology see: David Keck, *Angels and Angelology in the Middle Ages* (Oxford-NewYork: Oxford University Press 1998); Isabel Iribarren, Martini Lenz (eds), *Angels in Medieval Philosophical Inquiry: Their Function and Significance* (Aldershot-Burlington: Ashgate 2008); Tobias Hoffmann, *A Companion to Angels in Medieval Philosophy* (Leiden-Boston: Brill 2012).

⁹⁸ 'aliquid dicitur esse miraculum, quod fit praeter ordinem totius naturae creatae'. 'So for something to be called a miracle it is required that it be against the order of the whole created nature' in Aquinas, *The Summa theologica*, p. 567 (1.110.4).

⁹⁹ Aquinas, *The Summa theologica*, p. 564 (1.109.4).

¹⁰⁰ Aquinas, *The Summa theologica*, p. 269 (1.50.1).

corporeal substance is: a compound of matter (*hyle*) and form (*morphe*). Hylomorphism is one of the most significant elements distinguishing Aristotelian from Platonic metaphysics, which places ideas separated from matter in a pure intelligible world. Accordingly, for Aquinas, there is no reason to find in nature ‘form’ separated from ‘matter’.

Aquinas’s angels are made of form alone. They are not made of the compound of matter and form like corporeal creatures.¹⁰¹ Angels have no bodies, not even extremely subtle ones, as Augustine believed.¹⁰² This is an important issue for Aquinas since it is contrary to Avicenna’s theory of Creation, according to which a separate mind is the cause of motion and mutation in nature. In Avicenna’s case, a spiritual substance could produce miracles because forms are imprinted into matter by a separate substance. Thus, a spiritual substance could perform miracles without using corporeal matter because bodies obey spiritual substance. By contrast, according to the Aristotelian system, matter could never be found separated from form in the natural world.¹⁰³ Paraphrasing book seven of Aristotle’s *Metaphysics*, Aquinas stresses that what is produced in nature is not matter separated from form, but the compound of form and matter:

Now every agent produces its like: wherefore that which gives existence to natural things by generation, must needs be something composite

¹⁰¹ However, the compounds of act and power still persisted in them, since according to Aquinas, nature is related to being like potency is to act. See Aquinas, *The Summa theologica*, p. 271 (1.50. 2 *ad tertium*). Aquinas rejects Avicenna’s theory of universal hylomorphism, according to which the whole of created nature, both spiritual and corporeal, is a compound of matter and form. However, Aquinas specifies that although the relationship between matter and form is understood as a relationship between power and act, it would be possible to say that spiritual creatures are made of matter and form. By contrast, Bonaventura follows the theory of universal hylomorphism conferring matter and form to spiritual creatures. Furthermore, Aquinas and Bonaventura have a different conception of matter, as according to the former it is something physical, therefore which cannot be attribute to angels; while for the latter, matter is a metaphysical concept, common to all creatures. See Keck, *Angels and angelology*, pp.93-9.

¹⁰² See the section above on Augustine.

¹⁰³ Aquinas, *The Power of God*, q. 6, art. 3 *Respondeo*.

and not a form without matter, in other words it cannot be a separate substance.¹⁰⁴

Matter is something in potency, which is brought to act by form. Hylomorphism is the substance of which nature is made. A hylomorphic nature is animated, things do not need an external cause to move; rather things are brought to act by the potency of ‘matter’ through the action of ‘form’ which is present into ‘matter’. God, as we have seen in the first part of this section, could suddenly move ‘matter’ to ‘form’, using only his will (*ad nutum*) because nature was created by him.¹⁰⁵ By contrast, spiritual creatures, even if they are closer to God than humans, could not operate *ad nutum* within the natural world, but they have to follow its rules.

The functioning of the natural world is based on the four Aristotelian causes (‘matter’, ‘end’, ‘form’ and ‘agent’), which in Aquinas become the secondary causes created by the first cause, which is God. ‘Matter’ is the only non-operative principle, which acts as the subject of the other operations. ‘End’, ‘agent’ and ‘form’ are active principles. As in Aristotle, Aquinas uses the analogy with the artefact, which is primarily produced for an end: a statue to glorify God. Then, the end makes the agent to produce it: the artisan to sculpt the statue. Finally, the agent operates following a form: as the sculptor modelling bronze. This model is also valid for the agency of angels since they are created beings.

For the first principle of action is the end which moves the agent; the second is the agent; the third is the form of that which the agent applies to action (although the agent also acts through its own form); as may be clearly seen in things made by art. For the craftsman is moved to action by the end, which is the thing wrought, for instance a chest or a bed; it applies to action the axe which cuts through its being sharp.¹⁰⁶

By contrast, Aquinas borrows the theory of motion and mutation in nature from book eight of Aristotle’s *Physics*. Moving from the axiom that a thing always

¹⁰⁴ Aquinas, *The Power of God*, q. 6, art. 3 *Respondeo*.

¹⁰⁵ Aquinas, *The Summa Theologica*, p. 539 (1.105.1).

¹⁰⁶ Aquinas, *The Summa Theologica*, p. 542 (1.105.5).

produces something similar, and due to the fact that natural movements such as generation, corruption or alteration, do not always happen in the same way, they cannot be produced by something which is not changing itself. Consequently, a spiritual substance, which is stable as it is separate from matter, could never be the producer of something in nature, because it would keep switching from a state to another. As a result, the immediate cause of movement, which consists of carrying the form from potency to act, has to be a body which switches from a state of being to another, through local motion. The only way for angels to act within the corporeal world is through a body. However, they cannot act as they are the form of a body, since this is the role of the soul. They are united to the body not as if they were its engine, but as they were its mover represented by the assumed movable body.¹⁰⁷ Accordingly, a spiritual creature can have access to the natural world only through local motion; consequently, spirits need a body to act in the natural world: ‘The corporeal nature obeys the bidding of the spiritual in the point of its natural relation to local movement, but not as regards the reception of a form.’¹⁰⁸

Local motion is the perfect motion of the celestial bodies, which does not cause any variation in quantity. Celestial bodies act in the sublunar world through local motion, lowering or raising tides. They could also be used by medical doctors or by practitioners of magic to do something that nature could not do or not in that manner. However, all these actions are made through natural means and this should be the way artefacts are made, not the way in which miracles are made.

It follows that their operations will not be miraculous but should rather be described as an art, for miraculous effects are produced by a supernatural cause without recourse to the action of nature: whereas it belongs to art to employ the action of natural principles, in producing an effect which either nature cannot produce, or at least not so efficiently.¹⁰⁹

Compared to the art of human beings, the art of angels is superior for two

¹⁰⁷ ‘[...] corpus assumptum unitur angelo, non quidem ut formae, neque solum ut motori; sed sicut motori repraesentato per corpus mobile assumptum.’ ‘The body assumed is united to the angel not as its form, not merely as its mover, but as its mover represented by the assumed movable body’ Ibid., p. 276 (1.51. 2 ad 2).

¹⁰⁸ Aquinas, *On the Power of God*, q.6, a.3, B.

¹⁰⁹ Aquinas, *On the Power of God*, q.6, a.3, D.

reasons: they know the motion of the planets better and they know the active and passive power of corporeal creatures better, and can apply it more quickly than humans.

For Aquinas, the work of angels and demons to produce something new from something that was given before, in a way that it could never have been made by nature, has been compared to the work of humans. The difference between them is that angels and demons know the hidden causes of nature much better, hence the potentiality of nature. They could move bodies through local motion, which means bodies that potentially could become something else. As an artisan could make a chair from wood, since wood is potentially a chair, however nature is not nature the efficient cause of it, it is the artisan. In the same way, an angel (good or bad) could excite the vital spirit to produce visions in the subject. Although the human soul is a created spirit, it is however bounded to the human body, therefore the human soul could only act through the body. Instead, the spirit is not bounded to a determined body so it could move other bodies by local motion.

Spiritual creatures could act on the human body in two ways: from the inside or the outside. From the inside they could move the imagination of human beings, as images are also caused by a local motion of the vital spirits and humours. Nevertheless, angels and demons could never make the subject see something he never seen before. From the outside, they could appear to the human senses by assuming a body.

Aquinas's rationalisation of the power and functions of angels includes the limitation of the role of demons, which are subordinated to them since they are fallen angels, therefore farther from God than angels. Aquinas's opponents disputed some of his suggestions right after his death. They criticised his rationalist position in respect to the less developed position of Augustine. The renewed Scholastic interest in demons is linked to the persistent presence of dualistic heresies such as the Cathars during the thirteenth century, which required a theological answer to the doctrine explaining the world as a constant fight between good and evil, represented by God and the devil.¹¹⁰ Aquinas, by

¹¹⁰ Graziella Federici Vescovini, *Medioevo magico. La magia tra religione e scienza nei secoli XIII e XIV*, (Turin: UTET 2008), pp. 78-9. For a general survey of medieval heresy see among others:

demoting the power of demons, skipped the possibility of comparing God and demons, as a dual struggle.

If we move back to the definition of miracle as something that exceeds all created nature, angels and demons (as part of it) would never surpass the order to which they belong. However, Aquinas, while denying angels any capability to perform miracles, leaves open the possibility of preternatural miracles only in the case of a definition of miracle in a loose sense, which is something that surpasses only nature known to man (*quoad nos*). Aquinas keeps a door open to Augustine's definition, with which, despite fundamental differences, he always tries to avoid dispute by bringing Augustine on to his side.

The definition of a miracle as something that exceeds corporeal and visible nature, in the sense of nature known to man, would, as direct consequence, have to admit that angels and demons could perform miracles. Aquinas is probably aware that this is not just an extension of the meaning of miracle, but a second definition, ontologically different. Whereas the former definition is restricted to God, who is the only being who could produce something *ex nihilo*, as nobody in the whole of nature could do it; the latter definition assumes miracle as something produced *ex arte* by a simple, albeit great artisan. Whereas in Augustine the criterion of knowledge, used to distinguish the various faculty and power of beings, is coherent with his inclusive cosmology, in Aquinas it would be inconsistent with the incommensurability of God's power. The definition of miracle as something produced *ex arte* would mean an anthropomorphisation of God, unacceptable to Aquinas's idea of a twofold order of things. Only when the relationship between the natural and the supernatural was overturned, during the seventeenth century, would preternatural miracles return.

Angelology reached its peak in the thirteenth century. According to

Ovidio Capitani (ed.), *L'eresia medievale* (Bologna: il mulino 1977); Raoul Manselli, *Il secolo XII. Religione popolare ed eresia* (Milano: Jouvence 1984); Robert I. Moore, *The Formation of a Persecuting Society: Power and Deviance in Western Europe, 950-1250* (Oxford: Blackwell 1987). A survey of the historiographical debate on the reality of medieval heresy is not relevant for this research, nevertheless, for further discussion on the topic see the debate between Peter Biller and Robert Ian Moore in Peter Biller, Review of *The war on Heresy: Faith and Power in Medieval Europe*, <<http://www.history.ac.uk/reviews/review/1546>>, and the author's reply on the same site.

historian David Keck, after the Parisian condemnations of Arabian and Aristotelian thesis regarding angelic nature in 1277,¹¹¹ the rise of nominalism and the subsequent separation of reason and revelation made the inquiry into the nature of angels more difficult.¹¹² For these reasons, angelology did not have a significant development in the following two centuries. We have to wait until the sixteenth century, within a changed cultural context, for a reconsideration of the role of angels in the working of miracles. In chapter two we will see that, using Augustine and Aquinas as predecessors, some early modern Jesuits will claim the existence of two types of miracles one performed by God and the other by angels.

Alongside Augustine, Aquinas is the most quoted author in early modern canonisation treatises. However, the Jesuit Henri de Lubac claims that Aquinas's concept of miracle and of the supernatural was entirely misunderstood from the sixteenth century onwards.¹¹³ Based on historical research, he tries to uncover the reason for misunderstanding the meaning of the supernatural and its relation with nature, and of course its true meaning in Aquinas's thought. De Lubac claims that the separation of the two realms in Aquinas is neither exclusive nor inclusive, as they are both conceived by the Neoplatonic Augustine. Aquinas's conception of God as source of being, analogically shared by each entities, avoids not only any contrast between the divine will and the course of nature but, at the same time, preserves the autonomy of nature towards grace, which perfects nature without replacing it (*Gratia non tollit, sed perficit naturam*).¹¹⁴ There is no substitution of an order by another order, but the completion of one, which can only be achieved by the intervention of the other. This subtle relationship between the natural and the supernatural risks being undermined by the concept of miracle as an event contrary to the course of nature, which on the contrary, would be preserved by the idea that a miracle cannot be understood as an event contrary to providence which includes God.

However, before proceeding to the second chapter, one final theologian needs to be examined, who represents the clearest expression of this sixteenth-century cultural shift.

¹¹¹ Aquinas' teaching on angelic compound of matter and form was attacked in the Condemnations of 1277.

¹¹² Keck, *Angels and Angelology*, pp. 112-4.

¹¹³ de Lubac, *The Mystery of the Supernatural*.

¹¹⁴ de Lubac, *The Mystery of the Supernatural*, chapter 1.

1.3 Francisco Suarez, divine law and angelical miracles

When it comes to the boundaries between the natural and the supernatural, the most relevant development is the shift in the relationship between art (*ars*) and nature. This occurred between the fifteenth and seventeenth centuries. After centuries of submission of art to nature, according to the Aristotelian motto *ars simia naturae*, art was finally equated to nature. It was a significant cultural change, during which the mechanical arts, such as engineering and architecture, gained dignity in comparison to the liberal arts. It is a period during which the purpose of knowledge diverged from a detached research of truth to a utilitarian application of knowledge.¹¹⁵

At the same time, knowledge no longer coincided with research into Aristotelian causes in order to grasp the essence of things, but rather with observation of the relationship between things expressed in quantitative terms. As Bacon (among others) wrote: ‘artificial things do not differ from natural ones in form or essence, but only in efficient cause’.¹¹⁶ As a result, ‘to know something’ begins to mean ‘to know how it was made’. Since human beings were identified as craftsmen, their relationship with nature changed. Art was no longer seen as an appendix to nature, helping to complete what nature is deemed to be doing. Human beings, as the efficient cause of artificial things, underwent a shift from the status of *minister* to the *magister* of nature, which is a shift in the relationship to nature from servant to master. The *magister* of nature is the magician who

¹¹⁵ There is a vast literature on the shifting early modern art-nature relationship. Among others see: Rupert A. Hall, ‘The Scholar and the Craftsman in the Scientific Revolution’ in *Critical Problems in the History of Science* ed. Marshall Claggett (Madison: University of Wisconsin Press 1959), pp. 3-23; Paolo Rossi, *Philosophy, Technology and the Arts in Early Modern Europe*, Trans. by Salvator Attanasio. ed. by Benjamin Nelson (New York: Harper and Row 1970); Paolo Aldo Rossi, *Metamorfosi dell’idea di natura e rivoluzione scientifica* (Genoa: Erga edizioni 1999); Pamela H. Smith, *The Body of the Artisan: Art and Experience in the Scientific Revolution* (Chicago: University of Chicago Press 2004); Pamela O. Long, *Artisan/Practitioners and the Rise of the New Sciences, 1400-1600*, (Corvallis: Oregon State University Press 2011).

¹¹⁶ Francis Bacon, *Descriptio globi intellectualis*, John M. Robertson (ed.), *The Philosophical Works of Francis Bacon*, 1st pub. 1905, (Oxon: Routledge 2011), p. 679.

knows the hidden power of things and how to combine elements together, minerals or herbs, to produce something preternaturally. Knowledge was redirected from the contemplation of truth to the construction of artefacts, and much more emphasis put on the limits of artificial nature than on the power of God. The division between created nature in visible and corporeal nature, on the one hand, and invisible and incorporeal, on the other, became much more visible. The former was nature detected by human senses, the latter was the nature of occult causes. At the same time, the boundaries between the whole of created nature and the supernatural became much more blurred. Finally, even God began to be seen as an artisan by seventeenth-century natural philosophers, indeed the greatest artisan. The relationship between nature and God drastically changed, and the two realms of the natural and the supernatural were finally detached.

The cultural change also affected the new Catholic religious Orders. The newly founded Society of Jesus became a great proponent of the new philosophy of nature.¹¹⁷ With the aim of counteracting heresy, the Society began to train its members in the new philosophy. By the end of the Society's first century of the life, six hundred and fifty new centres had risen all over the world and the *Ratio atque institutio studiorum Societatis Iesu*, the official plan for Jesuit education, had been established. The *Ratio* included a training programme on the new science, especially in mathematics, which guaranteed the presence of the Society at the centre of the heated debates of the century.¹¹⁸ Although they followed

¹¹⁷ On Jesuits' scientific work: Romano Gatto, *Tra scienza e immaginazione: le matematiche presso il collegio gesuitico napoletano (1552-1670)* (Florence: Olschki 1994); Ugo Ubaldini (eds), *Christoph Clavius e l'attività scientifica dei Gesuiti nell'età di Galileo: atti del convegno internazionale (Chieti 28-30 aprile 1993)* (Rome: Bulzoni 1995); Antonella Romano, *La Contre-Réforme mathématique: constitution et diffusion d'une culture mathématique jésuite à la Renaissance (1540-1640)* (Rome: Ecole Française de Rome 1999); on the spread of experimental science among Catholic orders: Antonella Barzani, *Gli affanni dell'erudizione. Studi ed organizzazione culturale degli ordini religiosi a Venezia tra Sei e Settecento* (Venice: Istituto veneto delle scienze, lettere ed arti 2004); Federica Favino, 'Scienza ed erudizione nei collegi degli ordini religiosi a Roma tra Sei e Settecento' in M. C. Giannini (eds) *Religione conflittualità cultura. Il clero regolare nell'Europa di antico regime*, (Rome: Bulzoni 2006) pp. 331-70.

¹¹⁸ Mario Barbera, *La Ratio studiorum e la parte quarta delle Costituzioni della Compagnia di Gesù* (Padua: Cedam 1942); Gian Paolo Brizzi (eds), *La "Ratio studiorum". Modelli culturali e pratiche educative dei Gesuiti in Italia tra Cinque e Seicento* (Rome: Bulzoni 1981); Vincent J. Duminuco

Aquinas's theology, they were not as strict as the Dominicans were. Indeed the Dominicans and Jesuits represent two different camps in the early modern definition of the miraculous realm. Whilst the former brought forward Aquinas's definition of miracle as something exceeding the whole of created nature, the latter proposed in addition, a second definition that included the work of angels.

Martin Luther's theology was also involved in this new trend. He brought to an extreme the separation between nature and supernature, between the world and the transcendence of the creator, between logical possibility and revealed fact.¹¹⁹ Luther viewed the condition of human beings as inevitably damned, which only and exclusively an intervention of God could save. Every human effort to conceive salvation would be in vain, since the distance between grace and nature is incommensurable. In contrast, within Catholicism, Michael Baius (Michel De Bey, 1513-89) re-read Augustine's theology by conceiving the pristine state of Adam and Eve as perfectly natural (*natura integra*), to which he opposed an impoverished nature (*natura lapsa*) which is the status of human beings after the Fall. Within these terms, the action of grace brought humans back to the status of *natura integra* not to a supernatural realm, with the risk of Pelagianism.¹²⁰ Early modern trends of a sharp

(ed.), *The Jesuit Ratio Studiorum: 400th Anniversary Perspectives* (New York: Fordham University Press 2000); Claude Paur, *The Ratio Studiorum: the Official Plan for Jesuit Education* (Boston: The Institute of Jesuit Sources 2005). However, the inner history of the Society reveals a shift in attitude towards the 'new science'. For example, in 1611 the Jesuits Odo von Maelconte, Christopher Grienberg and Clavio senior approved Galileo's observations on the Moon spots, while the Jesuit Mario Bettini was firmly against the theory of the presence of mountains on the moon. Furthermore, Giovanni Luigi Confalonieri professed sympathy for anti-Aristotelian theories on natural philosophy, while Giovanni Battista Riccioli (1598-1671) opposed Galileo's theory of movement. See: Federica Favino, 'Ordini religiosi e scienza moderna', in A. Clericuzio and S. Ricci (eds), *Il contributo italiano alla storia del pensiero*, Enciclopedia Italiana, Appendice VIII (Rome: Istituto Treccani 2013), pp. 1-8.

¹¹⁹ Oakley, 'The Absolute and Ordained Power of God' pp. 455-6; Fiorella De Michelis Pintacuda, 'Onnipotenza divina e libertà umana in Lutero: la salvezza e l'etica' in Guido Canziani, Miguel A. Granada and Yves Charles Zarka (eds) *Potentia Dei*, pp. 45-62; Costantino Esposito, 'Suarez and the Baroque Matrix of Modern Thought' in Victor M. Salas and Robert L. Fastiggi (eds) *A Companion to Francisco Suarez* (Leiden: Brill 2014), pp. 124-47.

¹²⁰ Vittorino Grossi, *Baio e Bellarmino interpreti di S. Agostino nelle questioni del soprannaturale*, (Rome: Studium theologicum Agostinianum 1968); Henri De Lubac, S.J., *Augustinianism and Modern Theology*, trans. Lancelot Sheppard (London: Geoffrey Chapman, 1969); for a

separation between the natural and the supernatural, and the naturalisation of the supernatural, led early modern Scholastic theologians to formulate the concept of 'pure nature'. This concept had been used previously by Thomas Cajetan (Tommaso de Vio, 1469-1534) to counteract the idea of relationship of natural and supernatural in John Duns Scotus.¹²¹ According to Scotus, man has a natural inclination towards union with God but he needs God to reach it. Whereas in Aquinas, a man who yearns for the supernatural has to annul his own nature in order to make room for to the supernatural, in Scotus, natural and supernatural are not ontologically distinct. Therefore, the human soul that yearns to the vision of God needs the intervention of the latter anyway. Cajetan's fear was the possibility of admitting that it was possible to know God naturally.

Francisco Suarez's theology of miracle was an expression of this contemporary turmoil over the relationship between God and nature.¹²² He was a Spanish Jesuit, who graduated in Salamanca and taught first philosophy then theology in different Spanish universities. Though he moved within Thomistic theology, Suarez developed new philosophical and theological doctrines. His knowledge was immense and his works covered all fields of theology, philosophy and ethics. He broke with the tradition of commentaries, on which all Medieval

reconsideration of de Lubac's point of view see: M. Gielis and K. Schelkens, 'From Driedo to Bellarmine. The Concept of Pure Nature in the 16th Century' in *Augustiniana*, no.57 (2007), pp. 425-48.

¹²¹ Juan Alfaro, *Lo natural y lo sobrenatural: estudio historico desde Santo Tomas hasta Cajetano* (1274-1534) (Madrid: Consejo Superior de Investigaciones Cientificas 1952); William E. Mann, 'Duns Scotus on Natural and Supernatural Knowledge of God' in Thomas Williams (eds), *The Cambridge Companion to Duns Scotus* (Cambridge: Cambridge University Press 2002); Scribano, *Angeli e beati*, pp. 68-118.

¹²² Francisco Suarez's bibliography is relatively large. However, while it mainly concerns with his works on metaphysics and law (*Disputationes metaphysicae* and *De legibus ac Deo legislatore*), Suarez's theological treatises (*De gratia* and *De angelis* for instance) are almost ignored by historians. For an exhaustive bibliography see: Jean-Paul Coujou, 'Bibliografia suareciana' (Pamplona: Servicio de Publicaciones de la Universidad de Navarra 2010); for a constantly updated bibliography visit the webpage: <<http://www.sydneypenner.ca/bib.shtml>>.

Scholasticism, disconnected from the text, was founded, and inaugurated systematic monographs.¹²³

According to Suarez, the way to guarantee the distinction between nature and supernature, and at the same time their non-opposition, is to think about the intermediate concept of 'pure nature'. This is a heuristic device that allows Suarez to oppose to grace, which is a complete divine and supernatural intervention of God, a concept of nature which is completely free from any supernatural ends because it is not dominated anymore by the sin of the Fall, as presented in Christian anthropology.¹²⁴ It becomes theoretically possible to think of human beings in terms of natural ends, which is not the vision of God. According to theologian de Lubac, this was the preamble towards a new interpretation of the relationship between the natural and the supernatural, which caused a complete misunderstanding of Aquinas theology.¹²⁵ If, according to the absolute power of God, human beings could have even been created without an innate desire (*appetitus innatus*) or a natural inclination to see God (*pondus naturae ad videndum Deum*),¹²⁶ the Pelagians' and Baius' idea that there is a natural potency active or passive in men for the vision of God, would become inadmissible, since there is no potency according to which there can be an innate desire of the vision of God. In order to save the transcendence of grace, Suarez introduces the hypothesis that man could have been created without any other end than natural. However by doing this, Suarez moves away from Aquinas's conception of the relationship of the natural and the supernatural, which is not reducible either to two separate systems or to an inclusive one.

The new conception of the relationship between God and nature led to a re-ordering of the concept of miracle. This was now composed of two new fundamental features: the absence of any opposition to the natural order and the faculty of angels

¹²³ Josè Pereira, *Suarez. Between Scholasticism and Modernity*, (Milwaukee, Wisconsin: Marquette University Press 2008), pp. 37-65.

¹²⁴ According to Vivès *Opera omnia* edition: Francisco Suarez, *Tractatus de gratia Dei* (Paris: Vives 1857), vol. 7, pp. 179-219. See also: Esposito, 'Suarez and the Baroque Matrix of Modern Thought', pp. 139-147.

¹²⁵ de Lubac, *Augustinianism and Modern Theology*.

¹²⁶ Suarez, *De gratia*, vol.7, p.185.

to perform miracles.¹²⁷ Although Suarez did not write a specific treatise on miracles, his concept of miracle can be largely inferred from two works: the *De legibus* and the *De angelis*. Suarez discusses his theory of miracle within the framework of ‘eternal law’ (*lex aeterna*) since this is the law which all creation obeys. He claims that it would be wrong to separate providence from eternal law, since God is unity and acts according to eternal law through the measure of providence. In response to the main question: Is God breaking the Eternal law? Suarez notes that it can be claimed that God could act through his providence outside of eternal law: for example, if the sun stops its course, then it could be argued that it would be an effect of providence, not of eternal law (which requires that the sun moves continuously).¹²⁸ Suarez claims that if something could be understood as a dispensation from eternal law, as in the case of the sun that stops its course, it is only due to the obedience to another part of eternal law, such as human prayer.¹²⁹

[...] although the fact that the sun stands still is not a result of the eternal law as it prescribes the order to be observed in the movements of heavenly bodies - nay, more, although the fact is a dispensation therefrom - nevertheless it is congruous with another precept of the eternal law, whereby God wills that the prayers of those that love Him shall be heard, when they pray in a due manner and for a just cause.¹³⁰

Suarez finally refers to Augustine’s well-known definition of miracle as something not contrary to the course of nature, but just beyond the knowledge of men.¹³¹ What is valid for the eternal law is also valid for natural law, which regulates human behaviour on earth, since the latter is included in the former. The fact that

¹²⁷ Suarez’s concept of miracle has not yet been taken into account by historians. The only available investigation is a brief article written by the Jesuit Norbert Brieskorn, ‘Suárez and the Question of Miracles’ *Revista Portuguesa de Filosofia*, 65 (2009), pp. 1315-1318.

¹²⁸ Francisco Suarez, *De legibus* (Paris: Vives 1856) vol. 5, p. 96 (lib.3.2.14).

¹²⁹ Suarez, *De legibus*, vol. 5, p. 96 (lib.3.2.14).

¹³⁰ The translation is taken from: Thomas Pink (eds), *Selection from Three Works of Francisco Suarez*, trans. by Gwladys L. Williams, Ammi Brown and John Waldron (Indianapolis: Liberty Fund 2015) p. 183.

¹³¹ Suarez, *De legibus*, vol. 5, p. 96 (lib.3.2.14).

sometimes it appears to human beings that God is breaking natural law is once again due to our ignorance of the whole of natural law.

This is what can be understood of Suarez's concept of miracle from *De legibus* (1612). In his treatise *Disputationes de angelis* (1620), Suarez criticises Aquinas's definition of miracle as something surpassing the whole of created nature, opting for a looser definition which has also to include the work of angels. Suarez observes a discrepancy between the so-called proper definition of miracle and some events that are commonly assigned as miracles. He suggests including invisible and incorporeal nature in the definition of miracle, which should encompass the work of angels. At the beginning of the section entitled 'whether angels by assuming bodies, can perform true and miraculous things through them' (*Utrum angeli assumentes corpora, per ea possint vera et miraculosa opera efficere*), Suarez points out that his argument is only valid if miracles are understood in the broad sense, as something which goes beyond the order of corporeal nature, not beyond the whole of created nature.¹³² He states that, if the emphasis is on the limits of the faculty (*virtus*) of created nature, angels as created beings would never surpass their own power, and so they would never be able to perform miracles. On the contrary, if the emphasis is on the boundaries of the usual order of things, angels would be able to perform miracles.¹³³

Therefore, the true miracle absolutely was everything which occurs in the world beyond the usual order of nature, or which occurs in bodies beyond the whole order of corporeal nature. Thus angels can do many things beyond the whole order of corporeal nature.¹³⁴

Suarez criticises the definition of *ordo* in the cosmology of Aquinas and Augustine, since the boundaries between the natural and preternatural are so marked.

¹³² Francisco Suarez, *De angelis*, (Paris: Vives 1856) vol. 2, p. 559 (lib.4.39)

¹³³ Suarez, *De angelis*, p. 560.

¹³⁴ 'Erit ergo simpliciter verum miraculum, quidquid fit in mundo praeter *consuetum ordinem naturae*, vel quod fit in corporibus supra totum *ordinem naturae corporeae*: angeli autem possunt multa opera facere supra totum ordinem naturae corporeae', Suarez, *De angelis*, p. 560.

[...] yet for order [Augustine and Aquinas] mean that application and use of corporeal causes, which occurs through the common course of natural agents, if it has not changed by angels.¹³⁵

Since mutation cannot happen except through local motion, it is not sufficient to consider it a miracle. Angels and demons can create disorder, not real miracles. On the contrary, in an *ordo* perceived as an ensemble of visible and corporeal causes, which are natural since they are perceivable by senses, any occult causes would be produced by a non-natural agent.

A second point stressed by Suarez is that not all miracles are the same. Some are nobler than others, either for the effects produced or for the way in which they happen. Nevertheless, all miracles have to exceed the natural order of things, and the natural capacity of matter, or they even have to exceed the connatural way in which the effect requires that it happen by itself (*quo talis effectus per se fieri postulat*).¹³⁶ Whereas a sudden cure from a serious disease, without any help from the art of medicine, might well be considered a miracle, this has no implication on a resurrection, which would be considered without doubt a miracle. These two types correspond to two different degrees of miracles, one beyond corporeal and physical nature, the other beyond the whole of created nature. Consequently, Suarez argues that it is simply wrong to restrict the meaning of miracle exclusively to the overcoming of the all nature, when there are miracles which surpass only corporeal nature. On the contrary, it is commonly believed that angels cannot perform any miracles because matter does not obey their act of will (*ad nutum*). As we have seen in Aquinas, the power of angels is finite. They cannot do anything by their own will since they are created beings, though spiritual and superior to humans. Only God is capable of creating something *ex nihilo*, without the means of any secondary causes, just through an act of will.

When Suarez makes a claim for miracle going beyond corporeal nature, he is not just proposing to expand the capacity of miracle-working to angels. He is also pushing for a new definition of miracle. Beside God's performance *ex nihilo*, he

¹³⁵ '[...]sed per ordinem intelligunt illam applicationem et concursum corporalium causarum, qui per communem cursum naturalium agentium eveniret, si ab angelis non immutaretur' Suarez, *De angelis*, p. 563. The translation is mine.

¹³⁶ Suarez, *De angelis*, p. 562-63.

places angels' performance *ex arte*. Within the latter, Suarez distinguishes the effects made by visible and corporeal causes and the effects made by invisible and incorporeal causes. Secondary causes are thus sharply divided into natural and preternatural. According to Aquinas, local motion, which is the most perfect motion of planets and things from which all the other kinds of motions derived, regulates both spiritual and corporeal created nature. As we have seen above, the emphasis in Aquinas's cosmology was between the divine and created nature. After the fifteenth century, the limits were mostly perceived between the ensemble of natural and occult causes. While boundaries between the natural and the preternatural were sharply drawn, the boundaries between the preternatural and the supernatural began to vanish, as we shall see in the next chapter, when we examine the work of Prospero Lambertini.

1.4 Conclusion

In this chapter we have seen how the development of the concept of miracle in Augustine, Aquinas and Suarez depends strictly on the changing relationship between God and nature. In Augustine, the absence of an objectified nature and, consequently, the lack of defined boundaries between the natural and the divine, leads him to conceive of the miraculous in relation to men's knowledge. People's ignorance leads them to think of miracles as events contrary to nature, when instead they are just contrary to their knowledge of nature. The *rationes seminales* implanted in things before Creation allows Augustine to explain miracles as events within the course of nature, albeit rare ones. Finally, the superiority of the knowledge of angels, directly illuminated by God, gives them the possibility to intervene in nature by provoking the *semina rationales* located in things, exclusively for the glory of God.

In Aquinas, the adoption of Aristotelian cosmography and the consequent idea of an autonomous nature regulated by secondary causes, leads him to conceive of miracles in opposition to the course of nature. The ignorance of men will no longer assess the presence of a miracle but the overcoming of the boundaries of the natural.

In Suarez, the separation of the natural and the supernatural becomes sharply visible. The identification of the natural course with corporeal and visible nature leads him to suggest a loose definition of miracle that includes the work of angels.

In the next chapter I will examine the idea of miracle in seventeenth- and early-eighteenth-century canonisation treatises. Most of these were written by canon lawyers directly interested in developing an effective method of assessing and classifying miracles for canonisation trials. The practical aims of these treatises, unlike the purely theological ends of the authors examined so far, led some of them to develop a new classification of miracles. Most canon lawyers emphasised the opposition of miracle to the course of nature and denied the possibility of miracles being performed by angels. However, at the beginning of the eighteenth century, the Promoter of the Faith Lambertini would suggest some crucial revisions in line with the cultural changes of the previous century.

Chapter Two

The Classification of Miracles in Canonisation Treatises

In the fourth book of his magnum opus *De servorum Dei beatificatione et beatorum canonizatione*, Prospero Lambertini (1675-1758) (fig. 1) noticed that it was impossible to distinguish a cure that occurred beyond the boundaries of incorporeal and invisible nature from one that exceeded just corporeal and visible nature.¹³⁷ The issue was of utmost importance, since it risked of delegitimising the whole system of miracle verification. According to Thomas Aquinas, and as we saw in the previous chapter, a miracle had to surpass the whole of created nature, which meant the visible and corporeal, as well as the invisible and incorporeal nature. The problem was that from seventeenth century, the boundaries between the supernatural and the preternatural had begun to blur.¹³⁸ The idea of an exclusively supernatural miracle no longer matched with perceived reality. A new idea of miracle was needed, otherwise all healing miracles would have had to be nullified. Furthermore, it would have created a chance for Protestants to affirm their belief in the end of the age of miracles against Catholic dogma. As a solution, Lambertini proposed an extended definition of miracle which included miracles performed by angels.

The case mentioned above will be at the centre of this chapter. We have already seen the philosophical implications of the changing relationship between God and nature in the previous chapter; here we will examine its practical implications. Whereas in the first chapter I reconstructed the development of different ideas of miracle within theological treatises, in this chapter I will focus exclusively on canonisation treatises. They were written to facilitate the assessment of sainthood of a servant of God during the process of canonisation. The practical purpose of these treatises made them a crucial source from which to examine the application of the philosophies of miracles we analysed in the previous chapter.

¹³⁷ Prospero Lambertini, *DSDB*, book. 4 part. 1 (Bononia: Formis Longhi Excusotis Archiepiscopalis 1738), p.11 (4.1.12).

¹³⁸ See Lorraine Daston, 'The Nature of Nature in Early Modern Europe' *Configurations*, 6 (1998), pp. 149-172.

The first section of this chapter consists of an overview of the different attempts made by canon lawyers to rationalise miracles, made necessary by the seventeenth century legal turn of the canonisation procedure itself.¹³⁹ In the second section, I will explore the Catholic context in which a cultural reform was attempted by Celestino Galiani (1681-1753). The third section of the chapter is focused on the works of Lambertini's (Pope Benedict XIV) in which he proposed a radical change in the classification of miracles.

2.1 Attempting to classify miracles

Between the middle of sixteenth and the middle of eighteenth centuries, the need for a useful method of discerning true from false miracles led many canon lawyers to publish treatises on the subject, usually as a part of works on canonisation.¹⁴⁰ Due to a set of reforms on the canonisation procedure, implemented from the first half of sixteenth century (which will be analysed in detail in the chapter three), discussions regarding miracle classification intensified. The author of the first treatise on canonisation was Martino Garati (d.1453), who wrote his *De canonizatione sanctorum* to facilitate the canonisation of Bernardino da Siena, probably between 1446-8. A few years later, Troilo Malvezzi (1432-95) wrote a

¹³⁹ Simon Ditchfield, 'Thinking with Saints: Sanctity and Society in Early Modern World' in *Critical Inquiry* vol.35 no.3 (2009) pp. 552-84.

¹⁴⁰ This is a list of the most quoted: Troilo Malvezzi, *De canonizatione sanctorum* (Bononia: Ugo Rugerio 1487); Giacomo Castellani, *Tractatus novus de canonizatione sanctorum* (Rome 1521); Angelo Rocca, *De Canonizatione sanctorum* (Rome: apud Guilelmum Facciottum 1601); Paolo Zacchia, 'De miraculis' in *QML* (Amsterdam: ex typographejo Joannis Blaev 1651); Felice Contelori, *Tractatus et praxis de canonizatione sanctorum* (Lyon: sumptibus Laurentii Durand 1634); Fortunato Scacchi, *De cultu et veneratione servorum Dei* (Rome: ex typographia Vitalis Mascardi 1639); Giacomo Pignatelli, *Consultationum canonicarum*, (Venice: apud Paulum Balleonium 1646); Lorenzo Brancati di Lauria, 'De miraculis', in *Commentaria tertium librum sententiarium Ioannis Duns Scotis*, tomus quartus (Rome: Haeredum Corbelletti 1676); Carlo Felice De Matta, *Novissimus de canonizatione sanctorum*, (Rome: Typis et Sumptibus Nicolai Angeli Tinassij 1678); Francesco Bordoni, *Opus posthumum, consistens in diversis meditationibus, ordine contexto super miraculorum essentiam, & qualitatem* (Parma: typis Pauli Monti 1703); Agostino Matteucci, *Practica theologico-canonica*, (Venice: apud Nicolaum Pezzana 1722); Prospero Lambertini, *DSDB*, (Bononia: Formis Longhi Excusotis Archiepiscopalis 1738).

similar treatise, based almost exclusively on Garati's writings, beating his colleague to the claim of publishing the first canonisation treatise.¹⁴¹ In the sixteenth century, the canon lawyer Giacomo Castellani wrote a third treatise, called *Tractatus novus de canonizatione sanctorum*, published in 1521. It is a brief treatise, in which the main elements used to define a miraculous event appear. Firstly, the miracle is considered a fact performed by God exclusively; demons and angels do not perform miracles. Since they could not create something out of nothing (*ex nihilo*) which is God's prerogative, they could only create something using the potency existing in the matter itself (*ex arte*). Secondly, miracles have to exceed the faculties of created nature. This could happen in two ways: according to the fact in itself (*quo ad factum*) or according to the way in which a fact happens (*quo ad modum facti*).¹⁴² This distinction between two kinds of miracle appeared from the earliest treatises on canonisation. As we have seen in the previous chapter, it does not belong to Augustine and preceded the systematisation of the theory of miracle made by Aquinas. Rather, it was in fact derived from Aquinas's predecessor at the chair of theology in Paris, Alexander of Hales, the first to use available logical tools provided by a rediscovered Aristotle to redefine miracles.

After the Council of Trent, Catholic reformers decided to counteract the Protestant teaching of the end of miracles by increasing control over the canonisation process and by providing it with a juridical and legislative apparatus.¹⁴³ For the precise identification of the different types of miracles, a classification of miracles shared by the cardinals in charge of judging a canonisation cause was required. Aquinas's tripartition of miracles had been already used in the canonisation of St Leopold III the Pious in 1485; however, between the beginning of the seventeenth century and the first half of the eighteenth century a range of treatises on canonisation procedure were published, each of them providing different inputs on miracle classification.¹⁴⁴ The reason lay in the fact that the authors belonged to different Religious Orders, such as the Franciscans or the Society of Jesus. The Franciscans traditionally followed Augustine and the medieval Franciscan doctors

¹⁴¹ Domenico Maffei, 'Il trattato di Martino Garati per la canonizzazione di San Bernardino da Siena' in *Studi senesi*, 2 (1988), pp. 580-603.

¹⁴² Castellani, *Tractatus novus* (pages not numbered).

¹⁴³ See chapter three.

¹⁴⁴ See Matteucci, *Practica theologico-canonica*, p.165 (3.2.5).

such as Alexander of Hales and Duns Scotus. The Jesuits were a modern order and followed Aquinas, although not in as direct a way as the Dominicans did. Accordingly, some Jesuits either did not accept Aquinas's tripartition of miracles or tried to modify it.

In this section, I will analyse three different cases in which Aquinas's tripartition of miracles was partially or completely rejected. This will help put Lambertini's revision of the classification of miracle, which was not an isolated proposal, in the right light. Indeed, the first author to suggest a new classification of miracle, proceeding in chronological order, was the physician Paolo Zacchia (1584-1659) (fig. 2). He was the only medical doctor who wrote a considerable chapter on miracles, included in a large treatise on forensic medicine published between 1621 and 1635.¹⁴⁵ Zacchia, who was educated by Jesuits, explained from the outset of the book that the reason why a physician should write on miracles was that he knew the natural order better than anyone. Indeed, medical doctors were the experts in charge of detecting whenever an event exceeded the faculties of nature during the assessment of miracles as part of canonisation trial (a role we shall revisit in chapter three). Zacchia noted that, whereas it was right to say that miracles in an absolute sense (*simpliciter*), always had a supernatural effect, on the contrary, miracles in particular (*secundum quid*), such as healing cures, had a natural effect, although they were due to divine causes rather than natural ones.¹⁴⁶ Miracles *secundum quid* could be only identified through an analysis of the way in which they happened. A recovery from disease, for example, did not exceed the faculties of nature; however, a sudden recovery did go beyond nature.

Another problem was that Aquinas's tripartition of miracles into above nature (*supra naturam*), against nature (*contra naturam*) and beyond nature (*praeter naturam*) was ambiguous. Indeed, some miracles, such as resurrections, could be classified as a miracle either beyond or against nature either, given that both classes included the overcoming of the power of nature. According to Zacchia, these two issues created uncertainty in the classification of miracles, so he suggested a four-fold classification of miracles according to natural causes, ranging from the first

¹⁴⁵ I have worked on the following edition: Paolo Zacchia, *QML* (Amsterdam: ex typographia Joannis Blaeu 1651), pp. 197-247 (4.1).

¹⁴⁶ Zacchia, *QML*, pp. 198-9 (4.1.20).

degree, which would be also the most incontestable, to the fourth, which would be the least. To the first degree belonged all those phenomena in which natural causes were completely absent, such as resurrections. The second degree included what could have happened through natural causes, but not in that same way, such as a sudden recovery from illness. In the third degree, natural causes were the agent but they were organised by divine power in a different way so as to produce a different effect, such as the cure of a disease by the use of water or objects usually used to produce another effect. The fourth degree occurred when natural causes were intended to produce what they did usually, but this was hindered by God, such as a man who was in a cage with lions but was not mauled.¹⁴⁷ Zacchia's classification of miracles may not have made their identification any easier, but it was nevertheless an attempt to organise the subject in a more efficient way.

Another author who provided a new tool of classification of miracle was the bishop Carlo Felice de Matta (1622-1701). His treatise *Novissimus de sanctorum canonizatione tractatus* was published in 1678. According to de Matta, the problem lay with the recognition of so-called negative miracles. He subdivided miracles into positive and negative ones. The former occurred when something was added to an initial state, such as the resurrection of a dead man, or a recovery from a disease, in which the passage from a state of illness to a state of health is evident. In negative miracles, on the contrary, nothing new was added, and the subject remained in its initial condition, such as when something which should burn in contact with the fire did not, or someone who should have been drowned did not. Whereas positive miracles could be used in a canonisation process, since they were perceptible to the senses, de Matta claimed that negative miracles could not be proved by witnesses, since nothing new happened. The only way to proceed towards negative miracles was by argumentation.¹⁴⁸ We shall return to the issue of negative miracles in chapter five, in our first case study.

De Matta developed a method of identifying miracles which he believed would dispel any doubts. He basically refuted Aquinas's tripartition of miracle according to substance (*quoad substantiam*), according to the subject in which it happens (*quoad subiectum*), and according to the way it happens (*quoad modum*),

¹⁴⁷ Zacchia, *QML*, pp. 199-200 (4.1.10-16).

¹⁴⁸ De Matta, *Novissimus*, pp. 170-1 (3.8.13).

and instead suggested a new tripartition based on negation and privation, according to Aristotle's physics. Nature was described by Aristotle in constant motion and mutation (*kinesis*). This was of four types: according to the place, which was the motion of something from a place to another; according to quantity, which was the growing of a being; according to quality, which was the mutation of colour of a thing; and according to substance, which was the birth of a being. Each of these types of *kinesis* could be described as the passage of matter as substrate from privation of a form to the acquisition of that form. De Matta explained the difference between negation and privation in accordance with this Aristotelian physics. The former consisted of the absence of form or act which naturally the subject should not have; the latter concerned with the absence of form or act which the subject naturally should have. For example, blindness in humans was privation, whereas in plants it was negation. Furthermore, privation could be perpetual or temporary: blindness from birth was usually perpetual, whereas a disease could be a temporary state. Accordingly, de Matta divided miracles into three types. A miracle of the first kind was something against negation, such as a talking mule, in which the absence of a spoken word naturally denied was removed. A miracle of the second kind was something against perpetual privation, such as resurrection, according to which the absence of life in a dead person was removed, of which the subject was perpetually deprived. A miracle of the third kind was something against a temporary privation, such as the recovery from an incurable disease, according to which the absence of health, in which the subject was temporarily held, was removed.¹⁴⁹

De Matta's classification of miracle did not meet with the approval of the Congregation of Rites and was never applied. Agostino Matteucci and Prospero Lambertini criticised Matta's evaluation of negative miracles as inconsistent.¹⁵⁰ Although Matta probably missed the target, and focused his effort on a non-existent problem, his theorising was another example of the various attempts made in seventeenth century to define a precise means to detect miracles accurately.

The last author I will consider is the Franciscan Francesco Bordoni (1584-1671). From the second half of fifteenth century, two schools of thought had faced

¹⁴⁹ De Matta, *Novissimus*, pp. 171-3.

¹⁵⁰ Matteucci, *Practica theologico-canonica*, pp. 195-196 (3.3.36-37); P. Lambertini, *DSDB* pp. 309-11 (4.22.1-4).

one another at the university of Padua, each with its chair in metaphysics: one following the *via tomi* the other the *via scoti*.¹⁵¹ One of the themes of the controversy focused on the relationship between the natural and the supernatural. On the one hand, the Thomists argued for a divine nature, separated from created nature, where the latter still has some similitudes with the former. On the other hand, the Scotists claimed a common being (*ens*) which would include the natural and the supernatural. The former is called the theory of the analogy of being, the latter the theory of the univocity of being.¹⁵²

The controversy between Thomists and Scotists is evident in seventeenth-century debates over miracles. Three of the canon lawyers who wrote on canonisation were Franciscans. Lorenzo Brancati di Lauria (1612-93) and Agostino Matteucci (died 1720) were both Scotists who sought a way of reconciling the two parties, at least regarding the classification of miracles, by accepting Aquinas' tripartition of miracles and the definition of miracle as something against nature. Bordoni, by contrast, was a hard-line Scotist. He had taught theology at the university of Bologna since 1621 and was consultor of the local Inquisition tribunal.¹⁵³ Bordoni wrote a treatise on miracles entitled *De miraculis* and published in 1703, in which he agreed that a miracle was a supernatural event that exceeded the whole order of nature (*ordinem totius naturae*), sometimes according to nature, sometimes against nature. However, he classified resurrection and recoveries from incurable disease as something according to nature (*secundum naturam*), relying on the fact that nature is good (*bona*) and conservative (*conservativa*). By contrast,

¹⁵¹ See Antonio Poppi, *Causalità e infinità nella scuola padovana dal 1480 al 1513* (Padua: Antenore 1966); Franco Riva, *Analogia e univocità in Tommaso de Vio 'Gaetano'* (Milan: Vita e pensiero 1996).

¹⁵² On Thomas Aquinas's analogy of being: Bernard Montagnes, O. P., *Doctrine of the Analogy of Being according to Thomas Aquinas*, (first. ed.1963) trans. by E. M. Macierowsky, (Louvain: Marquette University Press 2008); Ralph McInerney, *Aquinas and Analogy*, (Washington: The Catholic University of America Press 1996). On Duns Scotus's univocity of being: William E. Mann, *Duns Scotus on Natural and Supernatural Knowledge of God*, in *The Cambridge Companion to Duns Scotus*, (Cambridge: Cambridge University Press 2002) pp. 238-62; Mechthild Dreyer, Mary Beth Ingham, *The Philosophical Vision of John Duns Scotus. An Introduction*, (Washington: The Catholic University of America Press 2004).

¹⁵³ Massimiliano Zanot, *Francesco Bordoni (1584-1671): teologo, inquisitore, storico* (Rome: Editrice Franciscanum 1999).

Bordoni classified as against nature those miracles concerned with the destruction of a person, such as death. He notes only tangentially that some miracles are defined against nature without any harm to the person, such as when something is contrary to nature in itself, as when a virgin gives birth.¹⁵⁴

Bordoni's identification of some miracles as according to nature differs from contemporary classifications of miracles, since he did not base the notion of miracle on the concept of opposition between the natural and the supernatural. Behind Bordoni stood Duns Scotus, who understood the relationship between the natural and the supernatural not analogically but univocally. According to Aquinas, the concept of God is inferred from the concept of creatures as they are analogically different, whereas Scotus claimed that God and his creatures are conceived according to a univocal concept, through the means of a third element which includes both. For these reasons, Bordoni could not accept an ontological opposition between nature and supernature, nor a general definition of miracle as something against nature. He openly quoted Scotus's statement on this issue: 'the natural and the supernatural are not distinguished by the nature of something in itself, but for the comparison of the agents'.¹⁵⁵ A miracle is defined by its agent, which is God: whenever something is produced by a secondary cause it is natural. Which meant, that it was not possible to distinguish the natural and the supernatural ontologically, but only according to the efficient cause which operates on a passive potency. Whenever the active principle that operated on it belonged to the order of the natural things, it was a natural event; whenever it was something out of natural order, it was supernatural. However, it was not enough to identify something as supernatural in which the agent was supernatural; it had also to operate supernaturally. Whenever God operated according to the potency of created beings, he operated naturally; whenever he exceed their potency he operates supernaturally.¹⁵⁶ The emphasis on agents and acts rather than on the opposition between the natural and the supernatural would compromise the usefulness of Bordoni's classification of miracles in canonisation

¹⁵⁴ Bordoni, *Opus posthumum*, p.7 (1.24-25).

¹⁵⁵ 'naturale et supernaturale non distinguunt naturam alicuius in se ipso, sed per comparatione ad agens' Francesco Bordoni, *ibid.*, p. 6; Duns Scotus, *Quaestiones quatuor voluminum scripti Oxoniensis super sententias* (Venice: typis Io- Iacobi Hertz 1680) p.227(4.10.8.9).

¹⁵⁶ 'ens scibile supernaturale non potest fieri nisi ab agente supernaturali et actione supernaturali' Duns Scotus, *Reportatio Parisiensis*, lib. IV, d. 10, q. 9, n.11.

trials, although this way of considering the supernatural would be not totally abandoned.

These different attempts at miracle rationalisation seem to have met a requirement of the miracle investigation procedure, based on the need for a functional system to identify and classify miracles. They were not apparently influenced by the northern European debate on miracles; rather, it was mostly a discussion internal to the canonisation procedure, as we shall see. By contrast, Lambertini, who will be the subject of this chapter's last section, was much more sensitive to the European debate, and his suggestions about the concept of miracle can also be understood as a reply to the denial of the existence of miracle made by some of them. To understand his reasoning better, I will consider the Catholic context in which his cultural innovations would find fertile soil.

2.2 Catholic enlighteners

The end of the Thirty Years' War (1618-48), which saw different confessions fighting against each other, left to the people of central and northern Europe the need to find common ground so as to prevent any further aggressive behaviour in religious disputes. Since papal authority was denied and councils and Scripture constantly criticised, they relied on a third party which began to be highly valued in the second half of the seventeenth century: reason.¹⁵⁷ Scriptures were re-read through the lens of reason, with the aim of getting rid of the surplus accumulated through centuries of fruitless speculation. Reason took the place of revelation, as the natural took the place of the supernatural. Revelation ceased to be the pivot of religion; instead reason and nature became the means and the realm within which God was sought. In England, the enquiry on religion, which put the emphasis on the natural and rational

¹⁵⁷ Literature on English late seventeenth- and early eighteenth-century natural theology and freethinking is immense. See among others: Margaret C. Jacob, *The Radical Enlightenment. Pantheists, Freemasons, and Republicans* (London: Croom Helm 1981); Jonathan I. Israel, *Radical Enlightenment. Philosophy and the Making of Modernity 1650-1750* (Oxford-New York: Oxford University Press 2001); Jeffrey R. Wigelsworth, *Deism in Enlightenment England: Theology, politics and Newtonian public science* (Manchester: Manchester University Press 2009).

standpoints, gave birth to different world views, ranging from the materialism of Hume to the spiritualism of Cambridge Platonists, and Deism.¹⁵⁸

In Italy, the emphasis on reason and nature did not attain the enthusiasm it did in England, partly due to the hostility of the Catholic Church towards any change. The treaty of Westphalia (1648) brought about the end of the Catholic project to extend its domain to the rest of Protestant Europe. Popes Innocent X (1644-55) and Alexander VII (1655-67) had to abandon any intent at political hegemony, limiting their influence to moral issues and to controlling any deviation from Catholic orthodoxy and possible threats to its cultural domain. As a consequence, Catholic regions, especially in Italy continued a period of cultural isolation, which was monitored by the Congregation of Forbidden Books and the Inquisition.¹⁵⁹ The decree *De canonicis scripturis* of the fourth section of the Council of Trent (1546) forbade any personal interpretation of the Scriptures. However, when the Catholic Church had to face the problem of the new philosophy, the censorship system revealed some ambiguities and internal contradictions. Whereas members of the Congregation of the Index all agreed on the supremacy of theology with respect to philosophy, they disagreed on specific cases. They may not have had any doubt prohibiting the printing and reading of the works of Baruch Spinoza and Thomas Hobbes, but they disagreed on atomism and Newtonianism, due to the end of the supremacy of Aristotle and the birth of new philosophical theories within the different Catholic orders.¹⁶⁰

¹⁵⁸ The literature is vast, here just some clues in addition to the previous note: Robert E. Sullivan, *John Toland and the Deist controversy : a study in adaptations* (Cambridge, Mass. - London : Harvard University Press, 1982); For a different point of view: S. J. Barnett, *The Enlightenment and Religion: The Myth of Modernity*, (Manchester-New York: Manchester University Press, 2003).

¹⁵⁹ Paolo Prodi, *The Papal Prince: One Body and Two Souls. The Papal Monarchy in Early Modern Europe*, trans. by Susan Haskins (Cambridge: Cambridge University Press 1987); Giorgio Chittolini, Giovanni Miccoli (eds), *Chiesa e potere politico dal medioevo all'età contemporanea. Annali 9* (Turin: Einaudi 1986); Mario Rosa, *La curia romana nell'età moderna. Istituzioni, cultura, carriere* (Rome: Viella 2013). For a different interpretation of early modern papacy see: Anthony D. Wright, *Early Modern Papacy. From the Council of Trent to the French Revolution 1564-1789* (London-harlow, Essex: Longman 2000).

¹⁶⁰ Elisa Rebellato, *La fabbrica dei divieti: gli indici dei libri proibiti da Clemente VIII a Benedetto XIV* (Milan: Edizioni Sylvestre Bonnard 2008); Saverio Ricci, 'La censura de filosofi 'moderni' : vecchie regole, incostanti applicazioni, variegati effetti' in Paul Gilbert S.I. (ed.) *L'uomo moderno e*

Some learned clerics and lay people had the opinion that the only way out of cultural marginalisation was the inclusion within Catholicism of the new ideas coming from northern Europe. Historians usually define these figures as Catholic enlighteners.¹⁶¹ I am going to introduce one of them, who was in close contact with Lambertini, with the aim of enriching this complex figure, and of outlining the surrounding cultural context. This was Celestino Galiani (1681-1753).

The Celestine (*Ordo Coelestinorum*) Celestino Galiani, already professor of mathematics and history of the church for a decade by 1718, in Rome, promoted new criteria of historiographical enquiry as a means rethinking the history of Christianity itself on solid rational grounds, following the projects of northern intellectuals such as Jean le Clerc (1657-1736), Samuel Clarke (1675-1729) and John Locke (1632-1704).¹⁶² Galiani was the first interpreter and promoter of Newtonian philosophy in Italy. He was a friend of Lambertini while the latter was Promoter of the Faith.¹⁶³ Galiani and his circle were interested in the new ideas developed in England within moderate natural theology. On the one hand, natural theology could lead to the denial of the relevance of the sacred scriptures, as in the case of deism; on the other hand, it

la chiesa Atti del congresso 16-19 novembre 2011 (Rome: Gregorian Biblical Press 2012), pp. 99-126. On the Roman inquisition see: Adriano Prosperi, *Tribunali della coscienza. Inquisitori, confessori, missionari* (Turin: Einaudi 1996); Christopher F. Black, *Church, Religion and Society in Early Modern Italy* (New York: Palgrave Macmillan 2004); *Ibid.*, *The Italian Inquisition* (New Haven: Yale University Press 2009); Gigliola Fragnito, *Proibito capire. La chiesa e il volgare nella prima età moderna* (Bologna: il Mulino 2005).

¹⁶¹ Mario Rosa (ed.), *Cattolicesimo e Lumi nel Settecento italiano* (Rome: Herder 1981); Vincenzo Ferrone, *Scienza natura religione. Mondo newtoniano e cultura italiana nel primo Settecento* (Jovene: Napoli 1982); Mario Rosa, 'The Catholic aufklarung in Italy' in Ulrich L. Lehner, Michael O'Neill Printy (eds) *A companion to the Catholic Enlightenment in Europe* (Leiden-Boston: Brill 2010) pp. 215-250.

¹⁶² Ferrone, *Scienza, natura, religione*; E. Di Rienzo, 'Galiani, Celestino' in *Dizionario biografico degli Italiani* vol. 51 (Rome: Istituto della enciclopedia italiana 1998) pp. 453-6, also available online: <http://www.treccani.it/enciclopedia/celestino-galiani_%28Dizionario-Biografico%29/>; Gustavo Costa, *Celestino Galiani e la Sacra Scrittura. Alle radici del pensiero napoletano del Settecento* (Rome: Aracne 2011).

¹⁶³ Fausto Niccolini, 'Tre amici bolognesi di Mons. Celestino Galiani: Benedetto XIV, il card. Davia, Mons. Leprotti, lettere inedite'. R. Deputazione di storia patria per le province di Romagna *Atti e memorie* 20 (1930), pp. 87-138; Marina Caffiero, 'Scienza e politica a Roma in un carteggio di Celestino Galiani (1714-1732). Società romana di storia patria, *Archivio* 101 (1978), pp. 311-44.

represented a means of reformation within Christianity by a perfect integration of theology and the new discoveries in natural philosophy.

The Boyle lecturers were an example of the latter natural theology. Under the term of his will, Robert Boyle endowed a series of sermons, eight a year, to serve as a public forum. Natural philosophy was used as an apologetic tool of religion in three ways. Firstly, facts and the observation of science served to demonstrate the existence and attributes of God; secondly, to counter the atheist theory of matter and motion as the sufficient explanation of the functioning of nature; and thirdly, by the interpretation of the limits of natural philosophical explanation as pointing to the existence and active providence of God.¹⁶⁴ The Boyle lectures were an alternative and opposite to Hobbes's materialism, Cartesian mechanics and Spinoza's identification of God and nature. Galiani understood that a reformation of Catholicism had to deal with the northern natural theology. The 1715 Boyle lectures, by William Derham, a scientist of the Royal Society and friend of Newton, were published in London with the title *Physico-theology: or a Demonstration of the Being and Attributes of God, from his Works of Creation*. They were brought to Italy by Sir Thomas Dereham and showed to his Catholic enlightened friends, who decided to translate and publish them. Derham's Boyle lectures were published in Florence in 1719 with the title *Dimostrazione dell'essenza e attributi di Dio dall'opere della sua creazione*.¹⁶⁵ In 1728 the second part of Derham's Boyle lectures was translated into Italian and published in Naples with the title *Teologia astronomica, ovvero parte seconda della dimostrazione dell'essenza e attributi di Dio dall'esame de' cieli*. Lambertini had Derham's first work in his private library, together with Newton's *Philosophia naturalis principia mathematica* (Geneva, 1739) and Boyle's *Opera* (Geneva, 1677).¹⁶⁶

If we scroll through the list of the books collected in his library, we might be surprised by the large number of heretical, heterodox and forbidden books. *Novatores*, Lutherans, Zwinglians, Calvinists, Sacramentaries (those who

¹⁶⁴ John J. Dahm, 'Science and Apologetics in the Early Boyle Lectures', *Church History* vol. 39 no. 2 (1970), pp. 172-186: 176-7.

¹⁶⁵ Ferrone, *Scienza natura religione.*, pp. 171-233: 206-207.

¹⁶⁶ For the inventory of Lambertini's personal library see BUB (Biblioteca universitaria di Bologna) Ms. 425, tt. I-IV *Catalogus bibliothecae domesticae Ssmi domini nostri Benedicti XIV*, 1750: t. II, p. 541.

misunderstand the sacraments), Anglicans, Socinians (anti-Trinitarians) and various heterodox figures such as Cornelius Jansen (1585-1638), Pietro Giannone (1676-1748), Miguel de Molinos (1628-97) and Bernardino Ochino (1487-1564). These heterodox works are obviously balanced by a huge number of orthodox works, but it clearly shows Lambertini's eclectic interests, perhaps surprising in a pope.

2.3 Prospero Lambertini's new classification of miracle

Prospero Lambertini was born in Bologna in 1675, where he graduated in theology and law in 1694. Pope Clement XI nominated him consistorial lawyer in 1700 and he was in charge of promoting the causes of Caterina da Bologna and Pio V, both canonised during Clement's pontificate. In 1708 Lambertini was nominated Promoter of the Faith, a position which he held for twenty years.¹⁶⁷ The task of the Promoter of the Faith, as we shall see in more detail in chapter three, was to supervise the enquiry into the virtues of the candidate for sainthood and the investigation into alleged miracles which occurred after his or her death. He raised critical issues about the reports made by the lawyer promoting the cause and by the medical experts, who had the role of analysing any medical issues concerning the supposed miracle. In the *animadversiones* (observations) Lambertini wrote as Promoter of the Faith, it is possible to find his early approaches to the problem of miracle assessment. The *animadversiones* consisted of some observations raised by the Promoter of the Faith towards any impediments on the proceeding of

¹⁶⁷ For an overview on life and works see: Louis Antoine Caraccioli, *Vita del papa Benedetto XIV Prospero Lambertini con note istruttive*, (Venice: Simone Occhi 1783); Ludwig von Pastor, *The History of the Popes*, vol.35: *Benedict XIV (1740-1758)* (London: Routledge Kegan Paul 1949); Marco Cecchelli (ed.), *Benedetto XIV (Prospero Lambertini): Convegno internazionale di studi storici*, Cento 6-9 dicembre 1979, vols. 2, (Cento: Centro studi Girolamo Baruffaldi 1982); Andrea Zanotti (ed.), *Pastore della sua città, pontefice della cristianità* (Argelato: Minerva 2004); Maria Antonietta de Angelis, *Prospero Lambertini: un profilo attraverso le lettere* (Città del Vaticano: Archivio segreto Vaticano 2008); Maria teresa Fattori (ed.), *Le fatiche di Benedetto XIV. Origine ed evoluzione dei trattati di Prospero Lambertini (1675-1758)* (Rome: Storia e Letteratura 2011); Id. (ed.), *Storia, medicina e diritto nei trattati di Prospero Lambertini* (Rome: Storia e Letteratura 2013); Rebecca Messbarger, John Gavitt Philip, Christopher M. S. Johns (eds), *Benedict XIV and the Enlightenment: art, science and spirituality* (Toronto: University of Toronto Press 2016).

miracle confirmation. In one of these evaluations, Lambertini concludes his report by denying the possibility of miracle cures whenever the disease was curable by spiritual beings. It happened in the *novae animadversiones* (1726) of Peter Fourier's beatification process. Here Lambertini, as Promoter of the Faith, after having denied for the second time the miraculous nature of five cures, concluded by saying that none of the cures exceeded the power of angels, as a result of which they could not be classified as miracles (since all the alleged miracles were just sudden and instantaneous cures). He referred to Angelo Rocca's *De canonizatione sanctorum*, in which the work of medical doctors is compared to the work of angels. According to Lambertini, and in line with Christian orthodoxy, one of the differences between human beings and spiritual beings was knowledge. Angels knew much more than humans did and, accordingly, they were more skilled in many arts; and this happens in medical knowledge too.

Good and bad angels, who are deeply skilled in the exact knowledge [*scientia*] of all things, and who are deeply informed of the causes of diseases, ordered the matter subjected to them easily and quickly to produce the recovery, after having removed the hindrances, which go unknown to physicians or which they cannot remove.¹⁶⁸

As outlined in the previous chapter, a proper miracle has to exceed the order of the whole of nature, which also means the spiritual order occupied by good and bad angels. As a result, Lambertini was faced with a dilemma: are sudden recoveries from long-term diseases to be considered miracles? If they were not, then a huge number of previous miracle cures would have had to be nullified; and if they were, then it would have to be affirmed that angels could also produce miracles.

In 1726, Lambertini had already had eighteen years' experience as Promoter of the Faith and he probably tried to gauge the reactions and consequences if the first position was applied. In fact, the consistorial lawyer promoting the cause, Carlo

¹⁶⁸ Angeli enim sive boni, sive mali, exactissimam omnium rerum scientiam bene penitus callentes, penitissimasque morborum causas optime conoscentes, materiam sibi subiectam mira facilitate, ac celeritate ad sanitatem suscipiendam disponunt, impedimentis, quae medici, vel ignorant, vel amovere non quent, amotis.' in *SRC [...] Petri Forerii Novae animadversiones [...]* (Rome: Rev. Camera Apostolica 1726) p.6. Translations are mine unless indicated otherwise.

Alberto Guidobono Cavalchini (1683-1774), who had the task of replying to Lambertini's observations, included in his response a *responsio theologica* focused exclusively on the issue raised by the Promoter of the Faith. It is a long essay divided into two sections. The first part deals with the question of whether good and bad angels could produce miracles. The second part focuses on whether diseases which nature and the art of medicine could cure after a long period of time, if suddenly cured, could be classified as miracles. From the beginning, Guidobono Cavalchini distinguished between the proper definition of miracle as something exceeding the order of the whole of nature and a loose definition of miracle as something exceeding the order of corporeal nature. Angels could produce something that surpassed the faculty of human beings; however this could not be considered a true miracle. According to Guidobono Cavalchini, true miracles were only those performed by God. Firstly, he referred to Aquinas's *Summa theologiae* (q. 110 art. 4), examined in the previous chapter, which states that angels could not perform miracles for their own virtues but only as an instrument of God's virtues.¹⁶⁹ Secondly, Guidobono Cavalchini referred to the institutional authority of the Congregation of Rites which has always approved sudden healings as miracles.¹⁷⁰ Thus, he claimed that angels could not perform true miracles.

In the second section of the essay, Guidobono Cavalchini tried to resolve the issue of how to differentiate between a sudden cure worked by an angel from one made by God. He did so by making use of the following expedient: whether in a disease that was curable only through medical art and over a long period of time, angels would not have been able to cure it perfectly. Therefore, in a cure that was perfect and occurred in a sudden way, it had to be identified as a miracle performed by God, not a cure worked by angels.¹⁷¹ The consistorial lawyer may have solved the

¹⁶⁹ ‘[...] non posse angelos facere miracula *virtute propria*, indicant nimirum, quod licet ea possint operari et aliquando operentur *virtute divina*, numquam tamen ea facere possint sua naturali et ordinaria virtute.’ in Ibid., *Responsio theologica*, p.31.

¹⁷⁰ ‘[...]ex praemissis nequeunt angeli propria virtute vera miracula facere, sique perpetuus laudabilis stylus huius Sacrae Congregationis e Apostolicae sedis obtinuit approbandi passim ac referendi inter vera miracula sanationes instantaneas [...]’ in Ibid., p.33.

¹⁷¹ ‘[...] ita ut si aegritudines tales sint, quae absque praevia medicamentorum dispositione et non nisi longo temporis intervallo curari possent, tunc communiter sentiunt theologi, per simplicem causarum naturalium applicationem, quae celeritate sibi competenti fieri potest ab angelo, sanationem non

problem by decreasing the power of angels in the visible world, but this did not solve Lambertini's dilemma. The problem of how to distinguish a recovery which surpasses only the power of corporeal nature from one which surpasses the order of the whole of nature was still present. As we shall see, Lambertini would make up his mind in his famous treatise on beatification and canonisation, opting for miracles performed by angels. But it seems that he arrived at this decision gradually, as a manuscript found in his library reveals.

2.3.1 The *Notae de miraculis*

Lambertini's function as Promoter of the Faith came to an end in 1728, when he was nominated bishop of Ancona by Pope Benedict XIII. Subsequently, in 1731, he was made archbishop of the diocese of Bologna. It was during his period in Bologna that Lambertini completed his master-work on beatification and canonisation, and at the same time he probably finished writing a short treatise on miracles which was never published.

The unpublished *Notae de miraculis* is a manuscript of 220 pages that was part of Lambertini's library, which he donated to the university of Bologna during the last years of his pontificate. The manuscript is anonymous, with corrections in the margins of the text and with an index, signs that it was a manuscript ready for publication, which never occurred.¹⁷² Emidio Alessandrini (O.F.M.) has identified Lambertini as the author of the manuscript. According to Alessandrini, Lambertini wrote the treatise when he was young and continued to add passages while he was writing the treatise on the canonisation. Eventually, Lambertini decided not to publish it because it no longer matched his own ideas.¹⁷³ Certainly, it is evident that

valere obtineri, et ideo in illo casu indubie censent, quod si sanatio subito sequatur, referri non debeat ad angelos virtute propria operantes, sed ad solum Deum, in cuius tantum potestate est supra ordinem naturae operari.' Ibid., p. 35.

¹⁷² *Notae de miraculis* in BUB Ms. 1070 (578 according to the previous collocation). There is a printed version included in Emidio Alessandrini, "*Creder tutto...creder nulla*": *il Notae de Miracoli: opera inedita del cardinal Prospero Lambertini (Benedetto XIV), sui fenomeni straordinari e magico-superstiziosi*, *Excepta ex dissertatione ad Doctoratum in Theologia morali consequendam* (Assisi: S. Mariae Angelorum 1995), pp. 1-156. The following number of pages refers to this printed copy of the manuscript. Translations are mine.

¹⁷³ Alessandrini, "*Creder tutto...creder nulla*", pp. LXXXVII-CXIX.

the author finished the manuscript after 1734, since some events which happened in Bologna are mentioned and dated by the same author in the manuscript. These facts are further clues to the authorship of the manuscript, since Lambertini was archbishop of Bologna from 1731 to 1740. In his introduction to the *Notae de miraculis*, Alessandrini defines it as a premature and naïve work of Lambertini, especially if compared to his later published work on canonisation.¹⁷⁴ In my opinion, the issue is completely different. Firstly, the *Notae de miraculis* is not a treatise on canonisation, but has to be included within the apologetic literature on miracles, of which this work represents one of the earlier examples. Secondly, the *Notae de miraculis* was written during a period in which Catholicism was threatened by northern natural theology and by the inner diatribes between scholastic theologians. In fact, as I will show in detail, the treatise contains those revisions in the philosophy of miracle that will be also suggested by Lambertini in his later work on canonisation. These novelties are essentially two: the unbreakable nature of natural laws and miracles worked by angels.

Let us begin by examining the structure of the treatise. The manuscript is divided into seven chapters. In the first, ‘Miracles name, notion and allied points’ (*De miraculi nomine, notione, et affinis vocibus*) [1]-[13], the author introduces the theological concept of miracle. In the second, ‘Miracles in general; whether God could perform miracles’ (*De miraculis in genere; an Deus possit facere miracula*) [13]-[55], he deals with the different types of miracles and with the possibility that even spiritual beings could perform it. The third chapter, ‘The rules to distinguish between miracles in the controversy made by someone’ (*De regulis ad discernendum inter miracula in contestationem alicuius doctrinae facta*) [56-65], deals with the rules to distinguish a miracle from an act of magic. In the fourth chapter, ‘On the incorporeal substances’ (*De substantiis incorporeis*) [65]-[82], the author is concerned with the faculties of angels and demons. The fifth chapter, ‘On magic and its effects in general’ (*De magia et eius effectibus in genere*) [82]-[173], is the largest and deals with demonology. In the last two chapters, ‘On the existence of miracles in Christian religion’ (*De existentia miraculorum christianae religionis*) [174]-[204], and ‘On the quality of miracles in Christian religion’ (*De qualitate miraculorum*

¹⁷⁴ Alessandrini, “*Creder tutto...creder nulla*”, pp. CXIV-CXIX.

christianae religionis) [204]-[220], miracles are analysed in their historical perspective in the Old and New Testament.

I will focus here on three topics which the author of the manuscript develops out of Aquinas's theology: the definition of miracle as something that happens for unknown causes (*per causas nobis ignotas*), the definition of miracle as an effect against nature (*contra naturam*) and the role of angels in working miracles.

In the first chapter, the author agrees with the attributes of miracle as something arduous (*arduum*) and unusual (*insolitum*). Regarding the etymological meaning of miracle as something that causes marvel, he first distinguishes a miracle from a marvel (*mirum*). In the miracle, wonder is caused because the effect was produced by a cause which is occult in itself or absolutely occult; in the marvel, the effect is produced by an occult cause respect to something else. The former are true miracles because the effects follow another order (*ratio*), which is contrary to the usual one. The latter are just marvels, since effects follow another order which is contrary to the viewer's knowledge about the natural order, but in reality it is not. This happens when a viewer wonders over the attraction between magnet and iron, because he does not know the properties of it and he wonders that the iron does not fall down as it naturally should.¹⁷⁵

The author then quotes Aquinas's definition of miracle: 'Properly a miracle can be said to be something which God made it happen in things through causes unknown to us, in which the natural order is contrary to the effect.'¹⁷⁶ He tries to understand the meaning of the phrase 'through causes unknown to us' (*per causas nobis ignotas*). According to what he said previously, miracles have occult causes *in se*, not according to something else. Consequently, the only explanation of Aquinas' definition is to understand that phrase as it was written *per causas nobis creaturis ignotas*. This opens the way for an interpretation of the miracle as something above just corporeal and visible nature and, consequently, to include angels as possible causes of miracles. This will be one of the paths followed by Lambertini in his famous published treatise.

¹⁷⁵ *Notae de miraculis*, pp. 4-5.

¹⁷⁶ 'Quidquid a Deo fit per causas nobis ignotas in rebus, in quibus est naturalis ordo ad effectum contrarium, proprie miraculum dici potest', *Notae de miraculis*, p. 6.

Another important concept emphasised in the first chapter of the manuscript is the meaning of ‘contrary to nature’. Lambertini claimed that we should conceive the contrary effects as a different way in which things could happen, although rarely: a sort of unusual order which belongs to things themselves. The common order of things is switched by the Creator at the moment of the miracle to another order of things. This is a crucial clarification. Firstly, the author here is using the same expedient used by Augustine to prevent miracles from being considered contrary to nature by the means of seminal reasons injected in things during creation by God. Consequently, it singles out the author from the other canon lawyers and theologians who declared that the essence of miracle is its opposition to the natural order. Secondly, it places the author within the contemporary discussion of miracles in northern Europe. Thus, according to natural theology, it was impossible to admit anything contrary to the order of nature, because it would be tantamount to admitting something contrary to God’s will. The author is clear: there is no opposite order if it is changed by God’s will.¹⁷⁷ There are two different natural orders: in one beings are created only by God and at the same time no one could do something *supra naturam* except God; the other is the order against or beyond what is made by God when he produce a miracle.

The definition of miracle that the author recognised above all is the following: ‘A miracle is a free product of the divine will, not as it was according to the usual laws of nature, but extraordinary, to act in an unusual way according to his will.’¹⁷⁸ The definition of miracle as a product of the divine will excludes any misunderstanding between miracles and marvels, since it is expected that God’s will is occult and specifically if it is also free. Moreover, God’s will is opposed to nature necessity, the former is free the latter is usual.

In the second chapter of the manuscript, the author goes back to the definition of miracle as an effect contrary to the order of nature. He openly denies Spinoza’s thesis on the impossibility of miracles, since miracle should produce something against the law of God which coincides with the order of nature. According to

¹⁷⁷ *Notae de miraculis*, p.6.

¹⁷⁸ ‘Miraculum est liberum divinae voluntatis opus, non ut dirigentis consuetas naturae leges, sed peculiaris, qua sibi ad quaedam insueta agenda pro libertate reservat’. *Notae de miraculis*, p. 7.

Spinoza God was eternal and immutable, thus he cannot go against himself. The author again rebuts:

They say that they [miracles] happen against nature, because they are not in the way they would be in the ordinary course of nature; which is not true that God changes nature, that God pervades the course of nature, this is absolutely not true, since somehow they are natural things, since they happen by the will of Him, which is the very nature of all things;¹⁷⁹

And he continues

The miracle does not destroy the laws of nature, indeed it is natural law, in order to which something could occur in a marvellous way, though it is not law that appears in a more customary way; and this is because the effects of that law are rare. God's will is natural law, it is both the law of nature and the will of God, in the way that this or that happens over time in an admirable way.¹⁸⁰

In these two passages, the author is saying that nature coincides with God's will, avoiding any mention of the separation of the natural and the supernatural, as pivotal in the definition of miracles. The influence of natural theology is again clear.

The third issue discussed by the author is whether created beings can produce miracles. Like Aquinas and earlier canonists, he believes that angels can be used by God as instruments to perform miracles. He agrees with Aquinas in the distinction of three kinds of actions that a spiritual being can do as miracle worker: preaching, preparing matter for miracles and co-acting with God. This faculty is a gift, meaning that they cannot perform miracles every time they want: 'They receive from God the

¹⁷⁹ 'Dicuntur autem fieri contra naturam, quia non sunt eiusmodi, quae sint secundum ordinarium cursum naturae; unde non est verum, Deum naturam mutare, Deum naturae cursum pervertere, non est hoc absolute verum, siquidem portenta ipsa quodammodo naturalia sunt, cum fiant per eius voluntatem, quae est ipsa omnium rerum natura; quia vero non sunt iuxta leges naturae, et consuetas, hinc dicuntur esse contra naturam.' *Notae de miraculis.*, pp. 13-14.

¹⁸⁰ 'Miraculum naturae leges non destruit, immo est naturalis lex, ut hoc, vel illud admirabile sequatur, quamquam non sit lex, quae consueta magis appareat; et ideo hoc est, quia rara sunt talis legis effecta. Voluntas Dei est lex naturae, et lex naturae, et voluntas Dei est, ut hoc, vel illud admirabile in tempore sequatur.' *Notae de miraculis*, pp.14-15.

virtues to accomplish miracles, but as the way of the imperfect forms, which does not last except at the presence of the principal agent'.¹⁸¹ It occurs in the same way in prophets, continues the author, who cannot prophesy whenever they want but only when the spirit touches their heart and they receive the gift of foresight.¹⁸² God binds the motion of corporeal things to the will of spiritual beings, in order that the created things, mostly corporeal, obey it even if the effect goes against the order of nature.¹⁸³

Thus far, the position held by the author of our manuscript does not diverge radically from previous theological beliefs. The step forward consists in claiming that spiritual beings are not just the moral causes of miracle; they do not just wish for a miracle (*non solum imperative*) but they bring it about (*sed etiam operative*), co-operating with God:

In the miracle, moreover, as it is said to happen because of a spiritual substance, the same spiritual substance works; [the spiritual being] wants the miracle and causes the miracle by this same act of wanting, because God likes it so that the same will is tied to that power; then this way of working is almost the way in which God works: if not because it differs in restriction and dependence.¹⁸⁴

In conclusion, only God can perform miracles according to a natural virtues, and sometimes, he shares the faculty of producing miracle with natural causes according to their capacity and the order of divine providence.¹⁸⁵ The author share this opinion with Suarez, although he never quotes him.

Regarding the issue of how angels could act on corporeal beings, the author follows Aquinas. The first question is: do angels have a body? Put in a more

¹⁸¹ '[...]habent a Deo virtutem in miraculis cooperandi, sed per modum formarum imperfectarum, quae non permanent, nisi ad presentiam agentis principalis, ut lumen in aere motus in instrumento etc.' *Notae de miraculis*, p.17.

¹⁸² *Notae de miraculis*, p. 17.

¹⁸³ *Notae de miraculis*, pp.17-18.

¹⁸⁴ 'in miraculo autem, quod a spirituali substantia fieri dicitur, ipsa spiritualis substantia operatur; vult enim miraculum, et hoc ipso actu volendi miraculum efficit, quia Deo sic placuit, ut ipsius voluntati esset alligata talis potestas; hic autem modus operandi eiusmodi fere est, quo Deus ipse operetur: nisi quod discrepat in limitatione, et in dependentia.' *Notae de miraculis*, p. 18.

¹⁸⁵ *Notae de miraculis*, p.19.

metaphysical way, this becomes: are angels corporeal or incorporeal in substance? He does not diverge from Aquinas's belief in the power and faculty of angels. They are limited in corporeal nature since they are spiritual; they cannot do all the things a corporeal being can do. However they can act as a soul acts in the human body, and even better, since their knowledge of laws of nature is higher than the knowledge of corporeal beings. As a result, they can naturally perform wonders that marvel the observer. As I have shown above, these are not miracles since they are effects which surpass only the order of things which is known by the observer rather than order itself. Finally, demons cannot perform any miracles because God prevents them.¹⁸⁶

The physics which controls spiritual faculties is still Aristotelian, conceived as a passage from a state of potency to the actualisation of that potency (as we saw in chapter one). The problem is that by the early eighteenth century the idea of nature has changed completely, no longer hylomorphic but mechanical. The aim of the author of the manuscript, and Lambertini's in his later published work, was to adjust the theory of miracle to the new instances caused by the new idea of nature. The main topics that I examined in the manuscript are found in later Lambertini's published treatise on beatification and canonisation, giving a high degree of certainty to the authorship of the manuscript. We do not really know the reasons why the manuscript was never published. As the main innovative points will reappear in the following treatise on canonisation, probably that was not a reason. It is not a premature or naïve treatise, as Alessandrini sustained. Rather, if it was really written by Lambertini, it proves that his intentions were clear from the beginning. They are clear points which respond to the main attacks against the existence of miracle made by some natural philosophers of northern Europe. The *Notae de miraculis* is an earlier example of apologetic treatise on miracles; a kind of literature that flourished in Italy during eighteenth century.¹⁸⁷

¹⁸⁶ *Notae de miraculis*, pp. 47-58.

¹⁸⁷ For instance see: Liberato Fassoni, *De miraculis adversus Benedictum Spinozam* (Rome: ex typographia Joannis Zempel 1755); Andrea Spagni, *De miraculis*, (Rome: typis Arcangelii Casaletti 1777).

2.3.2 The *De servorum Dei beatificatione et beatorum canonizatione*

Between 1734 and 1738, when he was archbishop of Bologna, Lambertini published a treatise on the beatification and canonisation process entitled *De servorum Dei beatificatione et beatorum canonizatione*. After few years in 1743 a second and revised edition was published in Padua, and a third revised edition was published between 1747-51 in Rome, under the supervision of Emanuele Azevedo.¹⁸⁸ Despite there being numerous other authors of treatises on canonisations, Lambertini made large use of the new ideas developed in iatromechanics and iatrochemistry, revealing, besides a great knowledge, and awareness of the importance of medicine in miracle investigations.¹⁸⁹

I will treat the discussion on medicine and natural philosophy in the second part of the dissertation; here I am going to focus on the theological and philosophical issues, especially Lambertini's denial that there was any clash between the laws of nature and the definition of miracle and the claiming for miracles performed by angels. These two points, as we have learned in the previous part of this section, are the innovations brought forward by Lambertini to counteract the denial of the existence of miracles claimed by some northern European philosophers, such as Spinoza and John Toland (1670-1722).¹⁹⁰

Since Lambertini made some relevant changes between the Bolognese and the Paduan edition, I will usually refer to the second edition. However, I will report the references of both editions whenever they do not match. The *De servorum Dei beatificatione* is composed of four books, which cover all the issues

¹⁸⁸ Prospero Lambertini, *DSDB* (Bononia: Formis Longhi excursoris archiepiscopalis 1734-8); Prospero Lambertini, *DSDB* (Padua: Typis Seminarii apud Joannem Manfrè 1743); Prospero Lambertini, *DSDB* (Rome: excudebant Nicolaus et Marcus Palearini 1749-51). See A. M. Frutaz, *Le principali edizioni e sinossi del De servorum Dei beatificatione et beatorum canonizatione di Benedetto 14.: saggio per una bio-bibliografia critica*, in *Atti del convegno di studi storici su Benedetto 14* (Falconara M.: Errebi 1982), pp. 27-90.

¹⁸⁹ See Gianna Pomata, 'The Devil's Advocate among the Physicians: What Prospero Lambertini Learned from Medical Sources', in R. Messbarger, C. M.S. Johns, P. Gavitt, *Benedict XIV and the Enlightenment: Art, Science and Spirituality* (Toronto: University Toronto Press 2016) pp. 121-50.

¹⁹⁰ R. M. Burns, *The Great Debate on Miracles. From Joseph Glanvill to David Hume*, (London-Toronto: Associated University Press 1981).

of beatification and canonisation procedure. The first part of the fourth book deals with miracles. This part can, in turn, be divided into an initial part concerned with miracles in general: their classification, cause, ends, task, etc; and a following part, in which specific miracles, mostly healing miracles are treated. Right from the beginning of the fourth book, Lambertini points out that the created world has to be understood as twofold: one is the natural and visible world, the other is the supernatural world, in which everything is a miracle.¹⁹¹ Lambertini considers the natural and the supernatural as belonging to the same created world. In the following sentence he makes clear that he will not deal with those miracles that belong to another order of things, established by God, which is known by us only through faith: such as God's incarnation, the conception of Mary, Jesus's resurrection, the introduction of the Holy Spirit, the working of the sacraments and the glorification of the bodies.¹⁹² These are considered miracles of a superior order. By contrast, Lambertini continues, 'in this treatise miracles are restricted to the natural and inferior order'.¹⁹³ In the subsequent section, he explains the relation which interposes between these two orders: one has to be above the other. Then he explains how we have to understand such hierarchy. The order of nature happens when a heavy body tends downwards and not upwards, or when water which is by itself cold stays so. Thus this order can be altered in two ways: by an agent established by nature, such as a hand throwing a rock high, or the fire heating the water. This cannot be classified as *prodigiosus* or supernatural, since the hand could have not thrown the rock and the fire did not heat the water. The second way it can be altered is if God, who contains in himself the virtues of hand and fire and of the whole created nature, without using them, acted as if he had. For example, when a saint orders to a rock to lift itself up or water to heat, without using either hands or fire. This is how the prodigious works: above the order of the proper

¹⁹¹ 'Duplex est ordo totius naturae creatae a Deo institutus; alter naturalis, quo visibilis hic mundus regitur, e gubernatur, alter supernaturalis, qui pertinet ad Gratiam, et Gloriam Sanctorum', Lambertini, *DSDB* (Padua 1743), p. 2 (4.1.1).

¹⁹² Lambertini, *DSDB* (Padua 1743), p. 2 (4.1.1).

¹⁹³ 'Sermo ergo noster ad ordinis naturalis, et sic inferioris miracula restringitur', in Lambertini, *DSDB* (Padua 1743), (4.1.2).

cause (*praeter ordinem propriae causa, quae nata est facere hoc*).¹⁹⁴

In the early sections, Lambertini shows how the supernatural order is not contrary to the order of created nature, but is part of that order which is made of ordinary and extraordinary things. The integrity of created nature is preserved. With the exception of Bordoni, Lambertini is the first canon lawyer to deny the definition of miracle as something contrary to the natural order. This can be understood as a response to Spinoza, who refused the possibility of miracles because they should be contrary to God's will, since according to him God should coincide with natural laws. This also echoes the Deists' refutation of any irrational explanation of the supernatural (a theme to which we shall return in chapter five).

The second topic which links Lambertini's *De servorum Dei beatificatione* with the anonymous manuscript analysed in the previous section, is the role assigned to angels.

You will ask, whether it is necessary for a miracle to consist of something which exceeds the forces and faculty of invisible and incorporeal as much as visible and corporeal nature, since it is the same to ask if something which exceeds only the forces of visible and corporeal nature, and is arduous, unusual and causes wonder, can be identified as a miracle even if it does not exceed invisible and incorporeal nature, which are angels.¹⁹⁵

Beginning in the first chapter, Lambertini queries whether Aquinas's definition of a miracle as something exceeding the whole order of nature should be intended as the only definition given by him. As we have seen above, Aquinas mentioned two types of miracles: one *simpliciter* which exceed all created nature, the other *quoad nos* which exceed what we know about the power of nature.¹⁹⁶ Lambertini refers to Aquinas's ambivalent definition, according to which miracles

¹⁹⁴ Lambertini, *DSDB* (Padua 1743), (4.1.3). The passage is not reported in the 1738's edition of *DSDB*, it is missed the entire third paragraph.

¹⁹⁵ 'Quaeres, an ad constituendum miraculum necesse sit, ut aliquid excedat vires et facultatem naturae tum invisibilis et incorporeae, tum visibilis et corporeae, quod est idem ac quaerere an si aliquid excedat tantum vires naturae visibilis et corporeae, et sit arduum et insolitum et admirandum miraculum dici possit, etiamsi non excedat vires naturae invisibilis et incorporeae, hoc est angeli.' Lambertini, *DSDB*, p.9 (4.1.14); (Bononia 1738) p.11 (4.1.12);

¹⁹⁶ Thomas Aquinas, *Summa theologiae* (1.110.4 ad secundum).

must exceed the whole order of nature, both visible and invisible, corporeal and spiritual, while at the same time Aquinas states that human being does not know all the virtues of created nature. Just as the author of the manuscript did, Lambertini is finding theological footholds to give legitimacy to his proposal.

It seems one can infer that unusual and marvelous effects which exceeds forces and faculty of created nature, visible and corporeal which is known by us, are miracles even if they do not exceed the forces and faculty of created nature invisible and incorporeal [...].¹⁹⁷

And Lambertini calls this type of miracles *miracula minora*. According to him Angels could perform miracles *propria virtute*, under God's will.¹⁹⁸

Lambertini claims that this type of miracle has already been adopted by previous eminent scholars. In chronological order, we find: Francisco Suarez's *De angelis*, whom we discussed in the previous chapter; Silvestro Pietrasanta's (1590-1647) *Thaumasia vera religionis*, in which miracles do not surpass the power and potency of invisible and incorporeal nature; Matteo Magnani's *Dissertatione de lacrimis imaginis sancta Mariae de Gratiis Pinnae Billorum* (1652), in which miracles are divided among those which surpass the force of the whole nature and those which exceed only the force of corporeal nature; the abbot Claude Frainçois Houtteville's (1686-1742) *Verità della religione cristiana provata dai fatti* (1722); and Samuel Christian Holmann's (1696-1787) *Commentatio philosophica de miraculis* (1727), in which some miracles do not surpass the forces of the whole created nature. Finally, Lambertini appeals to the authority of Augustine, whose definition of miracle was exclusively based on the wonder produced over the witnesses of something which they could not explain. Lambertini proposes the identification of two different types of miracles: higher miracles (*miracula maiora*), which exceed the whole of created nature, and lower miracles (*miracula minora*),

¹⁹⁷ 'Ex his autem inferri posse videtur, quod effecta insolita, et admiranda, quae excedunt vires et facultatem naturae creatae visibilis et corporeae nobis notae, miracula sunt, etsi non excedant vires e facultatem naturae creatae invisibilis et incorporeae [...].' Lambertini, *DSDB* p.9 (4.1.14); (Bononia 1738) p.12 (4.1.12).

¹⁹⁸ Lambertini, *DSDB*, p. 14 (4.2.7).

which exceed only corporeal and visible nature.¹⁹⁹

With the exception of Suarez, the authors mentioned above did not really argue for a new idea of miracle, they just took it for granted. By contrast, Lambertini was conscious of the importance of that novelty. According to him, the problem arose because it was impossible to distinguish between an event surpassing the preternatural, which is angelic and demonic in nature, from one merely surpassing corporeal and visible nature.

On the one hand, it seems necessary that in the assessment of miracles only those which exceed the forces and faculty of all created nature are allowed. On the other hand, it is difficult to know and distinguish whether a miracle, which has been proposed in that assessment to be examined, would exceed the forces of invisible and incorporeal good angels.²⁰⁰

The importance of this passage is crucial. Lambertini is saying that the boundaries between the preternatural and the supernatural are blurred. It is no longer possible to detect whether something exceeds the boundaries of the whole of created nature because nature itself is changed. Theoretically, continues Lambertini, a sudden recovery of health, the conversion of one substance into another, such as the conversion of water into wine and the multiplication of the loaves and the fishes, can occur in a twofold way: they can exceed the corporeal and visible, and incorporeal and invisible nature, or they can exceed just visible and corporeal nature. If new matter has been produced, or modified or multiplied, if a substance has been converted into another, then it surpasses the whole of created nature. By contrast, if the particles of a fire are carried through the air suddenly from a place to another, collected together and thrown suddenly towards the ground, and if something suddenly has been taken away and at the same time substituted with something else by an invisible creature, these events do not exceed the faculties of angels.²⁰¹

¹⁹⁹ Lambertini, *DSDB*, p.11 (4.1.17); (Bononia 1738) p.14 (4.1.15).

²⁰⁰ 'Ex una etenim parte necessarium esse videretur, ut in iudicio adeo gravi non admitterentur nisi miracula, quae excedunt vires et facultatem totius naturae creatae; ex alia vero parte difficile admodum est, scire posse, et posse dignoscere, an miraculum, quod proponitur in hoc iudicio examinandum, vires excedat naturae invisibilis et incorporeae angeli boni.' Lambertini, *DSDB*, p. 56 (4.6.6).

²⁰¹ Lambertini, *DSDB*, pp. 56-57 (4.6.7).

Lambertini realised that phenomena which did not surpass the whole of created nature, but just corporeal and visible nature, had been approved as miracles in numerous beatification and canonisation trials. According to Lambertini, it was not possible to distinguish in a miracle of the third degree whether it exceeded incorporeal and invisible nature, which was the whole created nature. Theoretically, a recovery from a fever could exceed the whole power of created nature or just the visible and corporeal. The former would have happened without the employment of any secondary causes, as a pure act of God's will. The latter would have happened through secondary causes; in the case of fever, bad humours would have been expelled suddenly and out of any expectation, in a way that naturally would have been impossible. However, since Lambertini had long experience as Promoter of the Faith, he was conscious that this distinction, though theoretically correct, was impossible in practice. There was no means of distinguishing between an angelic performance, which simply went beyond corporeal and visible nature, from a performance exceeding the whole power of nature:

Consequently, if only miracles which surpass the forces of all created nature have to be admitted in beatification and canonisation assessment, we have to exclude those which were examined above, and those similar to them, because we cannot distinguish if they occurred in one or another way; and it would occur as miracles only those which consisted of the penetration of bodies, replication of them, secret revelations of the human heart, prophecies of future events which depend on human freedom and resurrections; and almost all recoveries from a disease would not be admitted as miracles in canonisation assessment.²⁰²

This means that if one did not accept that angels could perform miracles, it

²⁰² 'Quocirca, si in iudicio beatificationis et canonizationis miracula tantum supra vires cuiusque naturae creatae admitti debent, ab eo excludenda erunt, quae supra recensimus, et illis similia, cum scire non possimus, utrum uno an alio modo acciderint; et tantum locus erit miraculis penetrationis corporum, replicationis ipsorum, revelationis secretorum cordium humanorum, praedictionis futurorum eventuum ab humana libertate pendentium, et suscitationis mortuorum, *et fere autem nullae sanationes a morbis poterunt in iudicio canonizationis admitti tamquam miracula*, Lambertini, *DSDB*, p.57 (4.6.7).

risked delegitimising the entire enquiry into miracles.

Lambertini referred to the ancient fathers of the church to legitimise his claim. He stressed the fact that Augustine focused the definition of miracle on the witnesses' lack of knowledge. Furthermore, he quoted Aquinas, picking up those passages in which the author explained the non-canonical type of miracle. As we have already seen, Aquinas's position on miracles was easily misinterpreted, since the author was vague on the possibility of angels performing miracles. Lambertini cleverly showed how both authors assumed the possibility of miracles which depended on the knowledge, not just of the witnesses but of all human beings. This was the knowledge that corresponded to corporeal and visible nature. In addition of the ancient fathers of the church, Lambertini quoted Francisco Suarez, who was a Jesuit. From the start, the Jesuits has chosen Aquinas's theology in their war against heresy. However, since their subscription to Aquinas's theology was not so strict as it was for the Dominicans of the Salamanca school--the real defenders of Aquinas--there was frequently friction between the two Orders. One of those disagreements concerned the extension of the miraculous to the work of angels.

In the 1738 edition of *De servorum Dei beatificatione*, Lambertini referred to some *salamanticenses*, faithful followers of Aquinas, who believed that the order of miracles had to be based in the way the effect happens, not in the effect itself.²⁰³ Whereas the concept of miracle hinged on rarity and marvel, a rare event was not always a miracle. For example, according to Aquinas, the Eucharist was one of the highest miracles, however it happened during every mass, and Sacred scripture reports that manna fell from the sky for every single day for forty years. Consequently, they believed that something was rare (*insolitum*) not according to the effect in itself but according to the way in which it happened. The presence of the body of Christ in the Eucharist was a rare event because it exceeded the common (*solitum*) order of innate nature. The order of nature was still functioning according to Aristotelian hylomorphism, consequently, all that

²⁰³ Lambertini, *DSDB*, pp. 3-4 (4.1.4). The *salamanticenses* was one of the three Carmelite's collectives enterprises which systematised the Thomistic corpus in a non-commentary form following Suarez's effort. The *complutenses* covered the philosophical issues (1624-1628), the first *salamanticenses*, dealt with dogmatic theology (1631-1704); and the second *salamanticenses* with moral theology (1665-1707). See Pereira José, *Suarez*, p. 60.

was produced through power and act, could not be considered a miracle. This theory faithfully reflected Aquinas's concept of miracle that we saw in the previous chapter, since it leaves no room for miracles performed within the order of created nature.

One of the members of Salamanca school was the Dominican Francisco de Araujo (1580-1664). Born in Spain in 1580, Araujo joined the Dominicans in Salamanca, where he also studied and taught philosophy. In his treatise *Decisiones morales* (Lyon 1664), quoted by Lambertini, he denied the possibility of miracles which exceeded only nature known by us. Araujo claimed that this was just a belief of common people who thought that some marvellous and rare things were miraculous because they surpassed their own knowledge and industry. These included exorcisms, the sweet smell coming from a corpse, frequent ecstasy, lengthy fastings, cures in which the person who was invoked appeared, and the use of images, little rocks and part of the clothes of a person to cure someone by contact. According to Araujo, all these works could be easily done by angels and demons, or by the imagination of the suffering.²⁰⁴

Araujo was a strict defender of Aquinas's definition of miracle and was aware of the fact that the difference between what was believed by common people and what was a proper miracle was an ontological issue:

[angels and demons] cannot by themselves or through magicians neither reverse the order of the universe, nor change God's law, nor remove an entire object from its place; nor they can nullify something or produce something out of nothing, since creation and annihilation are peculiar works of divine omnipotence.²⁰⁵

The only miracle accepted by Araujo was that made *ex nihilo*, which was God's privilege. He remarked that claiming that angels too could perform

²⁰⁴ Francisco de Araujo, *Variae et selectae decisiones morales ad statum ecclesiasticum et civilem pertinentem*, (Lyon 1614), p.163, (3.23.83).

²⁰⁵ ' [angeli et demones] non possunt per se aut suos magos ordinem universi invertere, neque legem ordinariam praefixam a Deo mutare, neque integrum elementum de suo loco exturbare; neque aliquam rem annihilare aut ex nihilo producere, quia creatio et annihilatio sunt proprium opus divinae omnipotentiae' Francisco de Araujo, *Variae et selectae decisiones morales*, p. 166, (3.23.102).

miracles was superstitious, since according to Aquinas, ‘superstition is to worship something that you do not have to, or in the way that you should not do’.²⁰⁶

According to Araujo there were two different realms: the supernatural and created nature, which included angels, demons and humans, and its power was regulated by Aristotelian hylomorphism:

But neither by themselves [angels and demons] or their magicians, can they suddenly introduce the substantial form into matter, except by means appropriate to the previous dispositions and proportionate to that form. which are introduced by applying active to passive. Hence, they cannot produce even one of the three classes of miracles, except in a fake and apparent way which we call illusory effects.²⁰⁷

Lambertini did not refuse the definition of miracle as something created *ex nihilo*, and consequently beyond the whole of created nature. However, he claimed that the pivot of the definition of miracle was not the way in which it was produced, but in the fact itself.²⁰⁸ According to the *Salamanticenses* the *ratio* of miracle lay in the way it is produced. If it happens *ex nihilo*, it is made by God; if it happens according to the act and potency, it is a natural phenomenon. By contrast, Lambertini stated that the *ratio* of miracle was not in the way it was produced, but in the fact produced. By focusing on the fact, it was possible to identify whether it exceeded the order of nature, or the order of preternature; which meant whether it was *contra naturam*, *supra naturam* or *praeter naturam*. This corresponded entirely to Aquinas’s classification of miracles.

The emphasis on the fact itself probably came from the juridical context in which the alleged miracle was examined. As we will see in the next chapter, what mattered in a trial were facts; indeed the first aim of the enquiry on a supposed

²⁰⁶ The phrase is quoted by Araujo in Araujo, *Variae et selectae decisiones morales*, p. 163 (3.23.87).

²⁰⁷ ‘Sed neque per se aut suos magos possunt formam substantialem immediate in materiam introducere, nisi mediis dispositionibus praevisis aptis et proportionatis tali formae, quas si introducunt applicando activa passivis, poterunt et ipsam formam introducere. Unde neque aliquod ex tribus classibus recensitis miraculum vere efficere possunt, nisi tantum ficte et secundum apparentiam quos praestigiosos effectus vocamus’. Araujo, *Variae et selectae decisiones morales*, p. 166, (3.23.102).

²⁰⁸ Lambertini, *DSDB* (Bononia 1738) p. 3 (4.1.4); The section will no longer appear in later editions.

miracle was to ascertain whether it happened in the way it was recounted by the witnesses. Only after the approval of it as a real fact could it be analysed by medical experts. As Promoter of the Faith, Lambertini dealt with this stage several times, arguing against it when there was a lack of circumstances required to call it a fact. We shall return to this subject in chapter four.

The emphasis on facts also reveals a new point of view by which miracles were observed and assessed, which is the point of rational nature. Since natural philosophy, as we will explain in the fourth chapter, has by this point already embodied the new idea of nature and since the experts in charge of assessing the alleged miracles were all natural philosophers, Lambertini's proposal of angelical miracles was nothing more than an awareness of something that was already happening.²⁰⁹

We will see in Part II of the thesis that the new idea of nature developed within natural philosophy was applied by medical experts as a paradigm to detect everything that exceeded its boundaries. The problem was that the new idea of nature did not match hylemorphic nature used as a paradigm in Aquinas's theory of miracle. I believe that this discrepancy caused the Thomistic definition of miracle to short-circuit. It was necessary to develop a second definition of miracle which matched the new idea of nature and the changed relationship between the natural and the supernatural.

In a broader sense, Lambertini's inclusion of angelic miracles and the emphasis on the boundaries of the corporeal and visible nature matches the cultural phenomenon of natural theology, which, stressing the role of reason in religious matters, started in England and spread to Catholic countries. Lambertini did not try to delegitimise the method used to examine miracles. He preferred instead to modify the same definition of miracle. It seems there were two parties: on the one hand the Dominicans, who were the conservators and the defenders of a strict interpretation of Aquinas's definition of miracle; on the other hand, the Jesuits, who proposed a loose definition of miracle, which indeed was a new one, since it included the definition of miracle *ex arte*.

In addition to Suarez and Lambertini, the other author who claimed a division of miracles into proper miracles which could be performed only by God and other

²⁰⁹ Lambertini, *DSDB* (Padua 1743), p.59 (4.6.11).

extraordinary operations which could also be worked by angels, such as ‘making someone walk on water’, was Gottfried Wilhelm Leibniz.²¹⁰ However, Leibniz’s angelology and cosmology will not be discussed in my dissertation, since they belong to a different strand of literature, that of metaphysics, which had different aims and was produced in a context extremely different from that of the authors discussed in my dissertation.

2.4 Conclusion

In this chapter we have traced the origins of a new idea of miracle in early modern treatises on canonisation. In the first section I analysed three attempts to modify the classification of miracles as developed by Aquinas. The seventeenth-century debate within canonisation treatises was limited to the classification of miracles; they never questioned philosophical or theological issues. Nor was the existence of miracles ever denied, or their identification as events caused by God and not by spiritual beings, such as angels. Finally, the fact that they happen rarely and not according to the order of nature, but contrary to it, was never questioned. It would seem that the main concern was as much with finding out a good method of investigation for the evaluation of miracles, as with developing a new classification of them, which would help in their identification.

In the second section, the focus shifted to the cultural context. I took one example of scholar who tried to reform the cultural environment of Catholicism: Celestino Galiani. He was influenced by the new natural philosophy of Northern Europe, especially Newtonianism. It seems that Galiani had a great influence on

²¹⁰ Mattia Geretto, *L’angelologia leibniziana* (Soveria Manelli: Rubettino 2010) p. 351. Omitting the bibliography on Renaissance pneumatology and early Modern demonology, the bibliography on early modern angelology is quite short: Andrew Fix, ‘Angels, Devils, and Evil Spirits in Seventeenth-Century Thought: Balthasar Beckker and the Collegiants’, in *Journal of the History of Ideas* vol. 50 no. 4 (1989) pp. 527-547; Renzo Lavatori, *Gli angeli* (Genova: Marietti 1991); Peter Marshall, Alexandra Walsham (eds.), *Angels in Early Modern World* (Cambridge: Cambridge University Press 2008); Stephan Meier-Oeser, ‘Medieval, Renaissance, and Reformation Angels: A Comparison’, in Isabel Iribarren, Martin Lenza (eds) *Angels in Medieval Philosophical Inquiry. Their Function and Significance* (Farnham-Burlington: Ashgate 2008) pp.187-200; Anja Hallacker, ‘On Angelic Bodies: Some Philosophical Discussions in the Seventeenth Century’ Idem. pp. 201-14; Joad Raymond, *Milton’s Angels: The Early Modern Imagination* (Oxford: Oxford University Press 2010). None of these studies deals with the possibility that angels could perform miracles.

Lambertini's theological reformulations.

Lambertini is the exclusive focus of the third section, who represents a precise attempt to reform the theology and philosophy of miracle from within. I identified two features of his proposal: the idea of miracle as an event not contrary to natural laws and the capacity of angel to perform miracles. Both these points have been analysed in chapter one, within the Medieval debate on miracles among Scholastic theologians, to facilitate the understanding of the philosophical implications of them, and to verify their origins in the Christian tradition. Lambertini's claiming of the miracle as a phenomenon not contrary to the laws of nature is evidently a direct answer to those philosophers, like Spinoza, who denied the existence of miracles for the reason that they would be contrary to God. On the other hand, the claim that miracles might be performed by angels, is probably due to Lambertini's acknowledgement that the overcoming of the boundaries of the natural no longer coincided with corporeal and spiritual nature, but just with corporeal and visible nature. Both Suarez and Lambertini suggested considering miracles in two ways: one which would correspond to Aquinas's definition of miracle as an event surpassing the whole of created nature; another which would imply a loose definition of it, as a miracle surpassing only corporeal and visible nature. Whether the two men arrived at that solution from the same reasoning remains unclear, but as far as Lambertini is concerned, we have shown that he faced the problem directly when he was Promoter of the Faith.

In the second part of the dissertation, I will examine how the new idea of nature developed in natural philosophy was applied to the miracle inquiry, and how it concurred with a change in the relationship between the natural and the supernatural. Whereas in the first part of the dissertation we have analysed the problem from the standpoint of theology and the canon law, in the second part we are going change tack, and look at the problem from the standpoint of natural philosophy and medicine. We will see how the new idea of nature no longer allowed for the positing of visible boundaries between the supernatural and the preternatural, causing them to disappear definitively. Instead, new clear-cut boundaries between the natural and the rest of the extraordinary world made themselves visible. In order to do that, chapter three provides a necessary overview on the canonisation procedure, so as to better understand the juridical framework in which the investigation of miracles operates.

Chapter Three

From Signs to Facts: the Inquiry on Miracles

From the beginning of Christianity, miracles have been understood as signs and as evidence of the existence of God for unbelievers.²¹¹ From the seventeenth century, miracles came to be understood more like facts, the existence of which had to be proven within a juridical framework. In reality, miracles continued to be understood as signs of the sanctity of a servant of God, but in order to be recognised as such they had to be proved as facts.²¹² The emphasis on facts is typical of the seventeenth century, during which the method of inquiry in natural philosophy shifted from the exclusively logical and mathematical to the experimental and sensorial.²¹³ Whereas previously facts had belonged exclusively to history and law, they now entered into the discipline of natural philosophy. Historian Lorraine Daston has outlined the transformation of prodigies ‘from signs into non-signifying facts, and miracles into compelling evidence’.²¹⁴ She shows how seventeenth-century changes in natural philosophy had, as consequence, resulted in the naturalisation of the preternatural, as well as how evidence and divine intentions in miracles were distinguished over the same period. Whilst I share the main points argued by Daston,

²¹¹ Michael Goodich, *Miracles and Wonders: The Development of the Concept of Miracles, 1150-1350* (Aldershot-Burlington: Ashgate 2007), pp. 8-28.

²¹² Lorraine Daston, ‘Marvelous Facts and Miraculous Evidence in Early Modern Europe’ in *Critical Inquiry*, 18, no. 1 (1991), pp. 93-124.

²¹³ Here the literature is vast, for some guideline see: Simon Schaffer, Steven Shapin, *Leviathan and the Air-Pump: Hobbes, Boyle, and the Experimental Life* (Princeton, New Jersey: Princeton University Press 1985); Steven Shapin, *A Social History of True Civility and Science in Seventeenth-Century England* (Chicago: University of Chicago Press 1994); Peter Dear, ‘Miracles, Experiments and the Ordinary Course of Nature’ *Isis* vol. 81, No. 4 (Dec. 1990), pp. 663-83; Id. *Discipline and Experience. The Mathematical Way in the Scientific Revolution* (Chicago: University of Chicago Press 2009).

²¹⁴ Daston, ‘Marvelous Facts and Miraculous Evidence’; see also Lorraine Daston, ‘The Nature of Nature in Early Modern Europe’ in *Configurations*, 6 (1998), pp. 149-72.

I nevertheless would also like to verify these changes in a specifically Catholic context.²¹⁵

This chapter focuses on the juridical framework at a time when an epistemological shift occurred in the understanding of miracles, from signs to facts. Though miracles, as signs of the divine presence and will, were a constant the Old Testament onwards, during the fourteenth century and then in particular after the Council of Trent (1545-63), political and cultural instances caused miracles to be envisioned mainly as facts. From a general point of view, a miracle is always considered an historical fact, because it happens in a precise time and space.²¹⁶ However, from the fourteenth century onwards, miracles began to be tested by the Church of Rome and started also to be considered as juridical facts.²¹⁷ Furthermore, by the seventeenth century, miracles also began to be considered as scientific facts, since medical experts were enrolled to assess whether or not they had surpassed the boundaries of the natural.²¹⁸ The reasons for the increased complexity in the meaning of miracles reflects the political and cultural changes in Europe at the beginning of the early modern period: such as the schism within Christianity and the decline of Aristotle's credibility within natural philosophy.²¹⁹ Protestants believed in the cessation of miracles after those recounted in the New Testament and they considered the worship of saints as idolatry.²²⁰ Following Trent, the Catholic Church confirmed the veneration of saints and the belief in miracles and, at the same time,

²¹⁵ See also: Fernando Vidal, 'Miracles, Science, and Testimony in Post-Tridentine Saint-Making', *Science in Context*, vol. 20, No. 3 (2007) pp. 481-508.

²¹⁶ Elena Zocca, 'Il miracolo nel cristianesimo dei primi secoli: realtà, segno discernimento' in M. Caffiero (ed.) *Magia, superstizione, religione. Una questione di confini* (Roma: Edizioni di storia e letteratura 2015) pp. 1-31.

²¹⁷ André Vauchez, *Sainthood in the Later Middle Ages*, Jean Birrel (trans.) (Cambridge: Cambridge University Press 1997), pp. 33-57.

²¹⁸ Daston, 'Marvelous Facts and Miraculous Evidence', pp. 113-24.

²¹⁹ Martin Craig, *Subverting Aristotle: Religion History and Philosophy in Early Modern Science* (Baltimore: John Hopkins University Press 2014); for an extended view see: Margaret J. Osler, *Reconfiguring the World. Nature, God, and Human Understanding from the Middle Ages to Early Modern Europe* (Baltimore, Maryland: The John Hopkins University Press 2010).

²²⁰ Though Philip Soergel's study on German wonder books suggests a much more variegated framework. See Philip M. Soergel, *Miracles and the Protestant Imagination. The Evangelical Wonder Book in Reformation Germany* (Oxford - New York: Oxford University Press 2012).

enforced control over them. Furthermore, natural philosophy radically changed during the seventeenth century. Whereas Aristotle's natural philosophy focused mainly on the contemplation of universal truths, mechanical philosophy began to focus on facts; to such an extent that some historians have recently spoken of the birth of scientific facts.²²¹

Facts have always been a concern of history and law. In the Medieval hierarchy of disciplines, *historia* is positioned in the middle between *scientia*, the closest to truth and *ars* the farthest. In chapter one I referred to the reconsideration of *ars* in natural philosophy and to the contemporary equation of *ars* to nature, in which something that is artificially made is no longer considered an imitation of nature (*simia naturae*). The same happens for *historia*, a term which appears in medicine in the title of anatomy treatises during the sixteenth century. This began with Alessandro Benedetti's *Historia corporis humani sive Anatomice* (1502), in which the various parts of the human body are described, little by little, as the dissector's knife discovers them and makes them visible.²²² The time lapse from considering facts as only human events that occur in a precise time and space, to facts as natural events and objects of philosophical inquiry, is a brief one. In miracle inquiries this is facilitated by a previous assessment developed by canon lawyers and the Promoter of the Faith regarding the reliability and credibility of witnesses, who had the role of guaranteeing that the facts really happened. Subsequently, they would examine miracles as juridical facts, arguing whether the cure recounted by witnesses should be considered a miracle or not. In order to do that, they consulted medical experts,

²²¹ Lorraine Daston links the new emphasis on scientific matter of fact and the new emphasis on 'impartiality' and 'indifference' with humanist efforts to polish academic manners: Lorraine J. Daston, "Baconian Facts, Academic Civility and the Prehistory of Objectivity," *Annals of Scholarship* 8 (1991), pp. 337-64; Barbara Shapiro stresses the English legal system as a source for the new emphasis on the matter of fact in natural philosophy: Barbara Shapiro, "The Concept "Fact": Legal Origins and Cultural Diffusion' in *Albion: A Quarterly Journal Concerned with British Studies*, Vol. 26, No. 1 (Spring, 1994), pp. 1-25; Id., *A culture of fact : England, 1550-1720* (Ithaca, N.Y. : Cornell University Press 1999); Italian historians have broadened the examination of the emphasis on matter of fact from Medieval law to Medieval and early Modern medicine and history: Simona Cerruti, Giovanna Pomata (eds) 'Fatti: storie dell'evidenza empirica' Vol. 36, No. 108 (2001), pp. 647-931.

²²² Gianna Pomata, 'Praxis Historialis: The Uses of *historia* in Early Modern Medicine' in Gianna Pomata, Nancy G. Siraisi (eds), *Historia Empiricism and Erudition in Early Modern Europe* (Cambridge, Massachusetts-London, England: The MIT Press 2005), pp. 105-46.

who considered all the circumstances in which the cure could have happened according to natural causes or by the intervention of the physician, which meant considering the historical fact as an alleged natural fact.

In this chapter, after a brief outline of the history of the canonisation procedure, I am going to analyse what it meant to treat miracles as facts. This chapter will help us understand the legal procedure of miracle inquiry, as a means of contextualising within actual practice the concept of miracle as reconstructed in the first two chapters. The first section consists of a brief history of the saint-making procedure from the Middle Ages to the early modern era. Although historians have already outlined the different phases of the development of the saint-making process, a quick look at the main turning points will help to locate the topic in the wider institutional history.²²³ The second section will fill the gap in historical scholarship, providing an evaluation of the role of the three crucial figures involved in the miracle discussion: the Promoter of the Faith, the consistorial lawyer and the medical expert. Francesco Antonelli provides us with a history of the medico-legal inquiry into the beatification and canonisation processes, which covers the whole period from the sixteenth century to the modern era. However, he limited his coverage to the general procedure and he never examined any particular cases.²²⁴ Section two will fill this gap by inserting some specific cases. The third and fourth sections analyse the inquiry of a miracle in details. Following a brief discussion of the different phases, we will focus our analysis on the first part of the inquiry, when witnesses' depositions were examined by the Promoter of the Faith and the consistorial lawyer in order to assess the evidence of facts. The second part of the inquiry into the miracle will be treated in detail in the second part of the dissertation, since it primarily concerns medical knowledge.

²²³ For a general overview see for the Middle Ages: André Vauchez, *Sainthood in the Later Middle Ages* (New York: Cambridge University Press, 1997); for the early modern period: Miguel Gotor, *Chiesa e santità nell'Italia moderna* (Bari: Laterza, 2004); Simon Ditchfield, 'Tridentine Worship and the Cult of Saints in *The Cambridge History of Christianity* (Cambridge: Cambridge University Press 2007) pp.201-224.

²²⁴ Francesco Antonelli, *De inquisitione medico-legali super miraculis in causis beatificationis et canonizationis* (Rome: Pontificium Athenaeum Antonianum 1962).

3.1 A brief history of the saint-making procedure

In the early centuries of Christianity, miracles were a matter of discussions and divisions. Due to the account of numerous prodigies performed by Jesus in the New Testament, Pagans such as Celso, Hierocles and Porfirio accused Christians of worshipping a magician who learned the art of magic in Egypt, not a prophet.²²⁵ By contrast, Christians tried to justify the presence of prodigies in the Old and New Testament in a twofold way: firstly on ethical grounds, by saying that the operator does not have any economical profit from his miracles, hence his only intention is the salvation of the subject; and secondly, by focusing on the miracle itself, interpreted as a sign of the omnipotence of God with the precise aim of converting non-believers. Between the third and fourth centuries Christianity changed: Christianity became the religion of the Roman Empire, the church was institutionalised and Christians went through a period of intellectual and spiritual crisis.²²⁶ These events concurred with the rise of two new phenomena: monasticism and the cult of saints.²²⁷ Accordingly, the apologists of miracles had to revise the criteria previously adopted. Whereas previously the focus had been on discerning the moral qualities of the operator, now this quality was evident a priori, from the fact that the operator was a monk or a saint. As a result of their behaviour, both were considered so close to Christ as to share the same power. Consequently, it was no longer necessary to distinguish between a true and false miracle: false, not because

²²⁵ Celso wrote in 178 *Alethes logos* (True discourse) which got lost, we can infer his position developed in 178 on the miracles of the Christ in Origene's *Contra Celsus*; Hierocles, governor of Bitinia, wrote *Philalethes* (Friend of truth) in 312, he compares the miracles of Christ with those operated by the philosopher and magician Apollonio di Tiana, the treatise got lost but we can infer his position in the reply of Eusebio in *Contra Hieroclem*; Porfirio's *Against Christians* was also lost, but can be inferred from later quotations.

²²⁶ Robert A. Markus, *The End of Ancient Christianity* (Cambridge: Cambridge University Press 1990).

²²⁷ Peter Brown, *The Cult of the Saints : its Rise and Function in Latin Christianity* (Chicago : University of Chicago Press 1981); James Howard Johnson, Paul Antony Hayward (eds) *The Cult of Saints in Late Antiquity and the Early Middle Ages : Essays on the Contribution of Peter Brown* (Oxford: Oxford University Press 1999); Elena Zocca, 'Santo e santità' in *Nuovo Dizionario Patristico di Antichità Cristiane*, vol.3, (Genoa-Milan: Marietti 2008), pp. 4697-708.

unreal, but because fictitious. In addition, practices that before would have been used to distinguish the work of a demon from the work of God, now became common to both: for instance, the custom of sleeping by the tomb of a saint, in the same way that pagans would have previously slept inside the temple of Asclepius, or make use of *ex votos*.²²⁸

The cessation of miracles as the site of clash between Pagans and Christians provoked further changes in the perception of the miracle itself. Above all, there was the decline of the idea of miracle as a sign and the emphasis on the moral quality of the saint and monk, insisting that authentic miracles were those which were most ethical.²²⁹ In his *Dialogues*, where he collects and accounts for a great numbers of miracles, Gregory the Great demonstrates how, when it came to the assessment of miracles, the value and aim of the works performed by the saint or monk was much more important than the demonstration of the divine power in them.²³⁰ Then miracles started to occur frequently. They were no longer restricted to episodes written in the Old and New Testament that had to be defended from those who denigrated them; they were positively accepted by the community. For these reasons, the Church started to be more interested in them and initiated the process to control them.²³¹

In early Christianity, the prototype of the Christian saint was the martyr, who died for his religious belief.²³² No official decree or ceremony certified his status,

²²⁸ Luigi Canetti, 'L'incubazione cristiana tra antichità e medioevo' *Rivista di storia del cristianesimo* vol. 7, no.1 (2010), pp. 149-80; Enrico Dal Covolo, Giulia Sfameni Graspardo (eds), *Cristo e Asclepio. Culti terapeutici e taumaturgici nel mondo mediterraneo antico far cristiani e pagani*, Atti del convegno internazionale. Accademia di Studi Mediterranei, Agrigento 20-21 novembre 2006 (Rome: LAS 2008).

²²⁹ Zocca, Elena, 'Il miracolo nel cristianesimo dei primi secoli: realtà, segno discernimento' in Marina Caffiero (ed.) *Magia, superstizione, religione. Una questione di confini* (Rome: Edizioni di storia e letteratura 2015) pp. 1-31.

²³⁰ Marc Van Uyfanghe, 'Scepticisme doctrinal au seuil du Moyen Age? Les objections du diacre Pierre dans les Dialogues de Grégoire le Grand' in *Colloque Grégoire le Grand* (Paris: Cerf 1986), pp. 315-26.

²³¹ Raimondo Michetti (ed. by), *Notai miracoli e culto dei santi. Pubblicità e autenticazione del sacro tra XII e XV secolo*, Atti del Seminario internazionale. Roma 5-7 dicembre 2002 (Milan: Giuffrè 2004).

²³² For Early Christianity see Peter Brown, *The Cult of the Saints: Its Rise and Function in Latin Christianity* (Chicago: The University of Chicago Press, 1981), 50-68; and Anthony Hayward (ed.),

which was instead evident in the spontaneous worship of numerous people at his tomb. Sainthood followed the pattern of small communities within which that particular saint was venerated. The ceremony by which a deceased was proclaimed saint consisted of the transfer (*translatio*) of his remains. Usually the local bishop exhumed the martyr's remains and replaced them in a location judged more appropriate.

During the reign of Constantine, when the persecution of Christians ceased, the consequential lack of martyrs caused a shift in the model of sainthood from the bloody death (*effusio sanguinis*) to a pious life (*confessio fidei*). Such was the case with the fathers of the Church and those bishops whose patronage during their life became, after their death, a source of protection for the community, as was the case from the fifth to the eighth century.²³³ Indeed until the thirteenth century there were no general rules regulating the cult of saints; canonisation was an informal and local activity. Generally, a bishop, together with the local community, decided how and when to worship the deceased. It was through the thirteenth century, during the phase of centralisation of the Church power in Rome and the rise of the Pope as the first bishop, that the church began to demand control over the canonisation of saints.

From the last decades of the thirteenth century the canonisation process took the form of two separate stages: a local inquiry (*processus ordinarius* or *processus inquisitionis et informationis*) followed by an apostolic investigation (*processus apostolicus* or *processus remissiorialis et compulsorialis*) The first stage consisted of the collection of as much data as possible in order to prove the candidate's saintly reputation (*fama sanctitatis*). This stage was usually endorsed by the local bishop and promoted by wealthy and powerful citizens. If the collected data satisfied the pope's expectations, he would delegate three officers in charge of setting up the second stage of the process, investigating the virtues and miracles of the servant of God in question. Right from the earliest inquiries, the presence of miracles was mandatory, as they were the sign of the candidate's holiness. Miracles were distinguished into those performed by the saint during life and those which occurred after his or her death. The former were used to ascertain the virtuous life of the

The Cult of the Saints in Late Antiquity and the Middle Ages: Essays on the Contribution of Peter Brown (New York: Oxford University Press, 1999).

²³³ Vauchez, *Sainthood in the Later Middle Ages*, p. 27.

candidate, the latter were usually miracles that occurred in the area surrounding the servant of God's tomb. According to the historian André Vauchez, this distinction was put in place in order to loosen the nexus between prodigies and the sepulchre of the servant of God, instead presenting them as miracles due to the candidate's virtuous life.²³⁴

The evidence of a miracle was guaranteed by the interviewing of witnesses, composed of general questions regarding the miraculous event. The data collection was optimised during the pontificate of Gregory IX (1227-41), when a form (*forma interrogatorii*) was attached to special letters of instruction (*remissorialis*) from Rome, in which a series of questions on the circumstance in which the miracle occurred, which the witnesses were asked and which were taken down by a notary. The trial transcripts were sent back to Rome together with the writings of the candidate to verify any inconsistency with the application. Here, three cardinals, working over a summary (*summarium*) obtained from the previous inquiry, were in charge of examining it and certifying its legal validity, the certitude of virtues and the evidence of miracles. From the fourteenth century the auditors of the Rota, the ordinary court of the Holy Seat, also intervened on the evaluation of the *summarium*. When the pope received the result of the inquiry (*relatio processus*), he convoked three consistories (secret, semi-secret and public). In the first one, the cardinals who conducted the investigation read the *summarium* and discussed the issues with the other members of the Sacred College. In the second reunion, a consistorial advocate related to the cardinals the reasons why the candidate was worthy to be included among other saints. In the third occasion, the pope publicly related the reasons for the canonisation of the servant of God and announced the date of his/her celebration.

The words *beatus* (blessed) and *sanctus* (saint), which had previously been synonymous, started to assume a more precise distinction by the early seventeenth century, when Clement VIII created a special 'Congregazione de Beati' in 1602.²³⁵

²³⁴ Vauchez, *Sainthood in the Later Middle Ages*, p. 47.

²³⁵ Miguel Gotor, *La fabbrica dei santi: la riforma urbaniana e il modello tridentino*, in A. Prosperi, L. Fiorani (eds), *Storia d'Italia. Annali 16: Roma, la città del papa. Vita civile e religiosa dal giubileo di Bonifacio VIII al giubileo di papa Wojtila*, (Torino: Einaudi 2000) pp. 697-708; Id., *I beati del papa. Inquisizione e obbedienza in età moderna* (Firenze: L. Olschki 2000) pp. 127-253; Simon Ditchfield, 'The Tridentine Worship and the Cult of Saints' in R. Po-chia Hsia (ed), *The Cambridge History of Christianity*, vol.6 (Cambridge: Cambridge University Press 2007), pp.209-12.

The creation of the committee was intended to manage the persistent request of religious orders and royal families to canonise those recently died in odour of sanctity. Clement called them the 'new blessed' to distinguish these prospective saints from those who enjoyed a long period of local veneration. *Sanctus* was the canonised *beatus*, with canonisation being the full recognition of the sanctity of that servant of God. During the Western Schism, the Church of Rome loosened control over canonisations, giving the opportunity to many blessed to come out of the shadows and become canonised. According to Vauchez, the loss of prestige of the Holy See made the Church more compliant to the requests of the faithful.²³⁶

A third period in the history of canonisation started with the brief but important pontificate of Sixtus V (1585-90).²³⁷ In 1588, he established fifteen new Congregations, or ministries, one of which was the Congregation of Rites. Besides the task of overseeing the rites, liturgy and ceremonies of the Church, the Congregation of Rites had the task of supervising the various stages of the canonisation process until submitted to the pope. The pope needed to control every stage of the canonisation process to counteract the pressure made by powerful postulators who wanted to push their candidate's cause forwards, challenging papal autonomy on matters of holiness.

The Congregation of Rites inevitably clashed with the three auditors of the Rota, nominated since the pontificate of Innocent III (1198-1216) to be in charge of examining the process. This overlapping of tasks lasted until the pontificate of Urban VIII (1623-44). However, the new-born Congregation still had to counteract the powerful Roman Inquisition. The Roman Inquisition had been established by Pope Paul III in 1542 as a permanent tribunal with the task of counteracting heresy as well as any deviation from the orthodox worship. Indeed, beside the liturgy, the canonisation of a saint was a political act, since to canonise also meant to satisfy the request of a postulator, who was frequently an influential and powerful figure, such as the sovereigns of Spain or France.²³⁸ As a result of the process, any cult of a non-

²³⁶ Vauchez, *Sainthood in the Later Middle Ages*, p.57.

²³⁷ Gotor, *I beati del papa*; Giovanni Papa, *Le cause di canonizzazione nel primo periodo della congregazione dei Riti (1588-1634)* (Rome: Urbaniana University Press, 2001); Simon Ditchfield, 'Thinking with Saints: Sanctity and Society in Early Modern World' *Critical Inquiry* 35 (2009), pp. 552-84.

²³⁸ Gotor, *I beati del papa*, p. 218.

canonised servant of God was considered illegal. The control of the saint-making procedure could facilitate the rise of a bishop to the highest rank in the Roman Curia. Since the inquisition was such a powerful institution, whose control could lead the cardinal director to the papal tiara, the conflict with the Congregation of Rites must be seen as part of political manoeuvring within the Church.²³⁹

In addition to political intrigue, the canonisation process reflects a new policy of the Catholic church after the Council of Trent. The Reformers had stigmatised the worship of new saints as idolatry and the performance of new miracles as something that ceased after the time of early Christianity. Martin Luther (1483-1546) accused it of diverting 'believers from the forms of worship which God had ordained and centred in His word',²⁴⁰ whilst John Calvin (1509-64) accused Catholics of superstition. According to Calvin, the cult of saints was comparable to the pagan cult of gods: those who worshiped saints 'dishonoured Christ and rob him the title of sole mediator'.²⁴¹ However, the Reformers' view of the cult of saints was not unique, since criticism came not only from the Reformation, but within Catholicism as well. Some exponents of the Italian movement known as the 'Spirituali', such as cardinal Gasparo Contarini (1483-1542), defined the cult of saints as superstitious, deploring the abuse of relics and the frequency of miracle cures.²⁴² The Tridentine Catholic Church reacted against these accusations by increasing the centralisation of canonisation and framing it within a rigid juridical procedure.

Simon Ditchfield has stated that the decrees of Urban VIII of 1625 and the decree *Coelestis Ierusalem cives* (1634) marked the 'definitive shift from a theological to a juridical definition of sanctity'.²⁴³ The Pope forbade in the strictest possible sense any form of public veneration of persons who had not been canonised

²³⁹ Gotor, *I beati del papa*, p. 218.

²⁴⁰ Martin Luther, *Luther's Works*, vol 3 ed. Jaroslav Pelikan (Philadelphia: Fortress Press, 1955), p. 109, quoted in Robert Kolb, *For All the Saints: Changing Perceptions of Martyrdom and Sainthood in the Lutheran Reformation* (Macon, GA: Mercer University Press, 1987), p. 13.

²⁴¹ John Calvin, *Institutes of the Christian Religion*, vol 2, ed. by John T. McNeill (Louisville: Westminster John Knox Press, 1960), III, ch. XX, sec. 21.

²⁴² Elisabeth G. Gleason, *Gasparo Contarini: Venice, Rome and Reform* (Berkeley-Los Angeles: University of California Press 1993).

²⁴³ Simon Ditchfield, 'Sanctity in Early Modern Italy', *Journal of Ecclesiastical History*, 47 no.1 (1996), pp. 98-112 (103).

or beatified by the Holy See. He also prohibited the publication of books recording the miracles and revelations of such persons, unless they had been examined and approved by the Apostolic See, as well as allowing to the hanging of ex votos, to paint the candidate with signs of holiness and to burn candles on their tombs only *in secretum*. Urban VIII's decrees completed the intention of establishing papal authority over canonisations. From Urban VIII onwards, the papacy had the complete control of the canonisation process.

For each servant of God a preliminary process *super non cultu* was undertaken: that is to say, the papal commissioners had to verify that there had not been any non-authorized public worship of any kind, in which the cause would have been dismissed. The only cults admitted under those rules were those venerated for at least one hundred years since Urban VIII's decrees. In such cases, a *supra cultu* process would begin. Furthermore, the candidate must have been dead for at least fifty years before the start of the process. Consequently, the local bishop could no longer complete a *processus ordinarius* of a servant of God and send it to Rome, unless the inquisitorial decrees had been verified beforehand. This completely limited the power of local dioceses.

In 1668, Clement IX (1667-9) issued the decree *Ad omnem Haesitationem*, in which he stated that the proclamation of canonisation required only the investigation of a single miracle in further detail, without the need to review the entire process. Therefore, the cause of beatification became the most important stage of the entire legal procedure, since it was the only stage in which they investigated the fame and virtues of the servant of God.

From the pontificate of Urban VIII, passing through the decrees of Alexander VII (*Decretum super cultu beatis non canonizatis praestando* 1659), Clement IX (*Ad omnem haesitationem* 1668), and Innocent XI (1678), beatification was defined in a more particular way as a process separated from the process of canonisation. The difference between the two is clearly delineated by canon lawyer Giacinto Amici, who identifies first the beatification as a grant (*indulto*), namely the permission given by the pope to venerate a certain servant of God; and the canonisation as the final judgment expressed by the pope, in which the venerate of that saint was declared and

ordered. Second, Amici identifies canonisation as an extension of the restricted cult conceded to the blessed.²⁴⁴

All these innovations in the saint-making procedure marked the various steps in a precise will of the Catholic Church to centralise the process and to extend the control in all of its parts, revealing a potential use of miracles as political means. In fact, when the Church proclaimed as a saint a Spanish rather than a French servant of God, this indicated that the church endorsed the politics of former over the latter.²⁴⁵

In addition to changes in the saint-making procedure, alteration also occurred in the very idea of sainthood. As Vauchez has shown, during the later Middle Ages the model of sainthood changed more than once. From the end of the twelfth century to the end of the thirteenth, the evangelical model of Sts Francis and Dominic prevailed, consisting of asceticism, poverty and pastoral zeal. From about 1300 to 1370, this evangelical model declined and was replaced by the Scholastic model of Thomas Aquinas, in which the saint's culture and knowledge were emphasised. From about 1370 to 1430 the model of mysticism of saints like Margherita da Cortona (d. 1297), Angela da Foligno (1309) and Chiara da Montefalco (d. 1308) prevailed, consisting of visions, ecstasies and prophecies.²⁴⁶

Later on, between the end of seventeenth and the beginning of eighteenth centuries, the Catholic Church underwent an anti-mystic turn.²⁴⁷ Historian Mario

²⁴⁴ Giacinto Amici, *Il sacro rito della canonizzazione brevemente descritto* [...], (Rome 1807) extended edition: (Rome: Tipografia di Crispino Puccinelli 1838); see also Giuseppe Dalla Torre, 'Santità ed economia processuale. L'esperienza giuridica da Urbano VIII a Benedetto XIV', in G. Zarri (ed.), *Finzione e santità tra medioevo ed età moderna*, (Turin: Rosenberg & Sellier 1991), pp. 231-63.

²⁴⁵ Peter Burke, 'How to Be a Counter-Reformation Saint' in *Religion and Society in Early Modern Europe 1500-1800*, ed. by Kaspar von Greyerz (London: George Allen & Unwin 1984) pp. 45-55; for a different point of view see: Simon Ditchfield, 'How Not to Be a Counter-Reformation Saint: The Attempted Canonization of Pope Gregory X, 1622-45' in *Papers of the British School at Rome*, Vol.60, No.1 (January 1992), pp. 379-422.

²⁴⁶ Vauchez, *Sainthood in the Later Middle Ages*, pp. 387-412.

²⁴⁷ Gabriella Zarri, (ed.) *Finzione e santità tra medioevo ed età moderna*; Elena Brambilla, *Corpi invasi e viaggi dell'anima. Santità, possessione, esorcismo dalla teologia barocca alla medicina illuminista* (Rome: Viella 2010); Elena Modica, *Infetta dottrina. Inquisizione e quietismo nel Seicento* (Rome: Viella 2009).

Rosa identified a shift in the criteria of sainthood over this period.²⁴⁸ The model of the baroque saint as visionary and prophetic gave way to the model of sainthood based on the concept of heroic virtues.²⁴⁹ This was due in part to the support for a moderate devotion launched by Antonio Muratori; but the fall in visions and prophecies as criteria for sainthood was also caused by the failure of any method to discern natural from the divine causes, as necessitated by the new meaning of miracles as facts. The inquisitor who wanted to understand whether the alleged saint was simulating or was truly inspired by God, had to deal with the illusory and deceptive universe of the senses and the imagination, which medical knowledge and the Thomistic theory of passions did not provide a successful means of discerning.²⁵⁰ Accordingly, to reach a degree of additional objectivity, visions and prophecies were made dependent from external references. Hence, visions and prophecies would be considered valid, which means supernatural, only if they matched those virtues at the high degree (the heroic) that was always associated with sainthood: humility, love of God, renouncement of material goods and the annihilation of self, to a heroic degree.²⁵¹ Accordingly, Prospero Lambertini confined his treatment of visions and prophecies to the end of book three of his *De servorum beatificatione*, after having discussed the heroic virtues. And he did not insert them in the following book, that dealt with miracles.

Thus, the shift in miracles from signs to facts was one of the causes of the fall of the baroque model of sainthood at the end of seventeenth century. For example, it was impossible to ascertain whether the alleged saint really appeared to the sick man before he was cured, if the only witness was himself, and was considered caused by an illusion on the part of the healed person. When he was promoter of the faith, Lambertini tended to deny any apparition as evidence that the healed person had invoked the servant of God. By contrast, the reliance on medical knowledge for the investigation of miracles became more frequent and uninterrupted. Unlike visions and prophecies, healing miracles became a pivotal element in the definition of

²⁴⁸ Mario Rosa, *Settecento religioso. Politica della ragione e religione del cuore* (Venice: Marsilio 1999) pp. 47-74; Mario Rosa, *La curia romana nell'era moderna* (Rome: Viella 2013) pp. 135-52.

²⁴⁹ Romeo De Maio, 'L'ideale eroico nei processi di canonizzazione della Controriforma' in *Ricerche di storia sociale e religiosa*, vol. 1, No.2 (1972) pp. 139-60.

²⁵⁰ Modica, *Infetta dottrina*, p. 87.

²⁵¹ Rosa, *Settecento religioso*, pp. 56-7.

sainthood in the early eighteenth century. A kind of polarity between sainthood based on heroic virtues and another made on thaumaturgy characterised the beginning of the eighteenth century till the end of Benedict XIV's pontificate, in 1758.

3.2 The Medical expert

In Italy from the late Middle Ages, physicians and surgeons had been consulted for their knowledge in the art of medicine.²⁵² However, it remained a discretionary consultation, with the judge free either to use it or not. Between the end of the fourteenth century and the beginning of the fifteenth it was believed that a judgment could be revised on the basis of an expert opinion. A passage from the *Tractatus de vulneribus*, probably written by Bartolomeo da Sassoferrato (1313-57), is quite explicit:

Physicians testify that a wound is lethal, later it appears to be the opposite [...] because medicine is not certain [...] because physicians judge on the basis of probable conjectures, therefore even the judgment does not appear true.²⁵³

In seventeenth-century Rome, experts (*periti*) were still regarded with suspicion. In Giovanni Battista de Luca's *Theatrum veritatis et iustitiae* physicians are distinguished into two categories: 'witness experts' (*periti ad testificandum*) and 'judging experts' (*periti ad iudicandum*). As a witness of fact, the former dealt mostly with the senses, but unlike lay witnesses, he was allowed to make some conjectures and judgments. The latter was usually only requested by judges, and is

²⁵² Mario Ascheri, 'Consilium sapientis. Perizia medica e res iudicata: diritto dei dottori e istituzioni comunali', in Proceedings of the Fifth International Congress of Medieval Canon Law: Salamanca 21-25 September 1970, ed. S. Kuttner and K. Pennington, (Vatican City 1980), pp. 533-79.

²⁵³ 'Tractatus de vulneribus', attributed to Bartolo da Sassoferrato, quoted in Ascheri (1980), p. 538: 'Sed pone: medici deponunt vulnus esse letale postea apparet contrarium . . . quia medicina non est certa . . . quia medici iudicant ex verisimilibus coniecturis et sic at iudicium non videtur multum verum'. Translations are mine unless indicated otherwise.

the only one to which the judge should defer. He is defined as the judge's counsellor and assessor.²⁵⁴ De Luca stresses that they do not have to be assembled under the rule of 'rely on the judgement of experts' (*iudicio peritorum in arte est deferendum*). *Periti ad testificandum* can never be unbiased since the parties chose them; on the other hand the rule befits *periti ad iudicandum* since the judge chooses them.²⁵⁵ By contrast, Antonio Maria Cospi, in *Il giudice criminalista* (1643), does not mention a distinction between experts. However he does suggest that the judge's knowledge should go beyond the boundaries of the law and include disciplines that always require an expert, such as medicine, geometry etc. This would avoid deferring to experts, and when the parties request them, it would give a means of evaluating their statement.²⁵⁶

Historian Joseph Ziegler has shown that from the second half of the thirteenth century onwards, the testimony of at least one medical doctor became mandatory for the success of an inquiry into an alleged healing miracle.²⁵⁷ However, even before the seventeenth century doctors not involved in the treatment of the patient and who had not witnessed the miraculous cure, appeared in canonisation records as experts responsible for the examination of an alleged miracle.²⁵⁸ According to the canon

²⁵⁴ Giovanni Battista de Luca, *Theatrum veritatis et justitiae* (Venice 1734) lib. XV, pars. I, disc. XXXIII, p. 99.

²⁵⁵ de Luca, *Theatrum veritatis et justitiae*, lib. XV, pars. I, disc. XXXIII, p. 99.

²⁵⁶ Antonio Maria Cospi, *Il giudice criminalista* (Florence: stamperia di Zanobi Pignoni 1643), p. 11, and p. 489: 'Et io ho durato alle volte molta fatica a cavare la verita`da questi periti: et mi e` bisognato cavarla per forza di interrogatorij & convincerli con ragioni cavate dall'arte loro, anco da poiche` sono in questa carica; parlo cosi` animosamente perche` sono cose note a molti e lo testimoniano i processi & ogn'uno se ne puo` chiarire'. 'I struggled to get the truth from these experts, I had to get it by the means of interrogations and to convince them with reasons obtained from the knowledge of their art since I took this charge. I speak so animatedly because these are things known by many people and it is testified by the trials and everyone can get a clear idea of it'. Translation is mine.

²⁵⁷ Joseph Ziegler, 'Practitioner and Saints: Medical Men in Canonization Process in the Thirteenth to the Fifteenth century' in *The Society of Social History of Medicine*, 12 (1999), pp. 191-225.

²⁵⁸ For early modern history of legal medicine see: Erwin H. Ackerknecht, 'Early History of Legal Medicine' in Chester R. Burns (ed.) *Legacies in Law and Medicine*, (New York: Science History Publications 1977), pp. 249-71; Catherine Crawford, 'Legalizing Medicine: Early Modern Legal System and the Growth of Medico-Legal Knowledge' in M. Clark, C. Crawford (ed.) *Legal medicine in history*, (Cambridge: Cambridge University Press 1994), pp. 89-116. For an insight into the role of

lawyer Felice Contelori, the custom of consulting medical experts was quite common between the sixteenth and the seventeenth century, evident in the canonisations of Francesca Romana (d. 1440), Carlo Borromeo (d. 1584), Ignazio Loyola (d. 1556), and Tomaso da Villanova (d. 1555):

Miracles can be proved not only by the witnesses who were present during the miracle, but also by two experts [*peritos*], for example, medical doctors or surgeons, who did not witness the miracle, but, after having examined all the circumstances of the fact, on which witnesses have testified, judge [*concludant*] whether the cure could not be caused by a natural event, and consequently they decide whether it must be ascribed to a miracle.²⁵⁹

The fact that these *periti* did not witness the event, did not compromise their reliability. On the contrary, autoptic examination was considered misleading in the legal arena and the crucial role of experts was to assess lay witnesses. Historian Silvia de Renzi points out that ‘Contrary to what we might expect, the body was never the source of evidence for a high-ranking *peritus*’.²⁶⁰ Rather, the role of experts was to set the causes and effects in the right sequence. In the legal arena, the priority was to disentangle the event.

According to Francesco Antonelli, during the investigation into Carlo Borromeo’s miracles, the opinion of an external physician, who had never seen the patient and who had not seen the miraculous cure, was required for the first time.²⁶¹ Indeed Marco Aurelio Grattarola, the postulator in Borromeo’s canonisation,

medical expert in early modern trials: Alessandro Pastore, *Il medico in tribunale: la perizia medica nella procedura penale di antico regime (XVI-XVIII)* (Bellinzona: Edizioni Casagrande 1998).

²⁵⁹ ‘Ampliatu[r] conclusio, ut miraculum possit probari non solum per testes, qui fuerunt miraculo praesentes, sed etiam per duos peritos, e.g. Medicos, vel Chirurgos, qui non fuerunt praesentes miraculo, sed perspectis omnibus facti circumstantiis, de quibus testes deponunt, concludant sanationem vel factum non potuisse fieri ex causa naturali, et in necessariam consequentiam censeant miraculo esse adscribendam [...]’ Felice Contelori, *Tractatus et Praxis de Canonizatione Sanctorum* (Lion: Sumptibus Laurentii Durand 1634), p. 209.

²⁶⁰ Silvia de Renzi, ‘Witnesses of the Body: Medico-legal cases in seventeenth century Rome’ in *Studies in History and Philosophy of science* 33 (2002), pp. 219-42 (238).

²⁶¹ Francesco Antonelli, *De inquisitione medico-legali*, p. 57-8.

complained about the extremely meticulous investigation into miracles, in which medical experts were consulted more than once:

For the great care that the Cardinals used in their most excellent examination of the entire cause, and consulting with many medical experts over the matter of the miracles, and sometimes to consult in many and become a large group, where they saw that some doubts could still remain.²⁶²

During the investigation of the miracles, the Rota's auditors flagged up some doubts regarding the miraculous cure of a 'hectic fever' (*febris hectica*), a fever characterised by large daily fluctuations. They wondered whether the cure could have happened by the means of the art of medicine or not, and so they had recourse to the physician Eduardo Lopez, who was probably the author of the first medical report on a miraculous cure:

There is no doubt that the woman, suffering for a long time from fever, and at the end attacked by the third type (*hectica*), as was agreed in writing by the physician who was treating her, was cured by a miracle: indeed this illness has no recovery, and is incurable, all physicians both ancients and more recent, that have written about that, guaranteeing it with clear words: Galen [...], Oribasius [...]. P. Egineta [...], Avicenna [...], Gordonius [...], these things that have been said, they claim. I believe that it must be stated doubtless, that the recovering of the woman suffering from the third type (*hectica*), truly must be ascribed to a miracle, thanks to B[eatus]. C[arolus]. Borromeo. So I affirm, Eduardo Lopez, physician.²⁶³

²⁶² '[...] come ancora per la gran diligenza che i signori cardinali usavano in studiar benissimo tutta la causa, e consultare con molti periti medici, la materia dei miracoli, e tal' hora ancora a congregarne molti e farci sopra collegio, dove vedevano, che vi potesse restare sopra qualche dubbio.' Marco Aurelio Grattarola, *Successi meravigliosi della venerazione di S. Carlo* (Milan: Pacifico Pontio et Gio Battista Piccaglia 1614), p. 173.

²⁶³ 'Quod mulier iam diu febris laborans, ac postremo hectica tertia specie correpta, ut ex medico qui curationem ei fecit, in scriptis habetur, miraculo fuerit sanata, non est dubitandum: hanc enim affectionem nullum admittere praesidium, ac incurabilem esse, omnes medici tum antiqui, tum recentiores, qui de ea scripserunt, explicatissimis verbis attestantur: Galenus [...], Oribasius [...], P. Egineta [...], Avicennas [...], Gordonius [...], haec quae dicta fuere, affirmant. Sanitatem vero in muliere tertia hectica specie laborantem miraculo tribui deberi ac meritis B. C. Borromei, procul

Following Lopez's medical report, the Rota's auditors approved the miracle.

Medical experts were required in canonisation trials with some frequency in the first third of the seventeenth century. In Ignazio de Loyola's canonisation process (c. 1622), the Rota's auditors required medical expertise for the evaluation of three miracles;²⁶⁴ in Thomas of Villanova's process (c. 1618), five doctors were in charge to examine the resurrection of two drowned children;²⁶⁵ in Francis Xavier's trial (c. 1622), after having examined the depositions of witnesses, medical experts declared that the recovery of the child was miraculous;²⁶⁶ and in Luigi Gonzaga's canonisation process (c. 1726), all alleged miracles were submitted to the medical experts' judgment.²⁶⁷ Despite the frequent recourse to them, there were no juridical rules providing for external medical expertise on matters of miracles. There was as yet no distinction between medical experts called by the postulators from those called by the Rota's auditors. This distinction appeared for the first time in Luigi Gonzaga's canonisation process. During it, thirteen physicians were consulted before the Rota's auditors took a decision.²⁶⁸ According to Antonelli, to prevent the raising of any doubts by the Rota's auditors and to speed the course of the process, the promoters of the cause could have applied for an external medical examination.

But who were these medical experts? How they were chosen? And what was their task? They were physicians and surgeons, not involved with the healed person, frequently chosen from among the most renowned doctors in Rome. They were usually chosen by the Rota's auditors and the promoters of the cause. Yet, in the first half of the seventeenth century, an institutional distinction between the experts required by the Rota (*ex officio*), and those required by the promoters (*ad*

dubio asserendum esse iudico. Ita affirmo ego Odoardus Lopius, medicus physicus.' In Carlo Borromeo, *Acta canonizationis*, in *Miscellanea Agiografica*, n. 344, ff. 910r-911r (Archivio della Santa Congregazione dei Riti, Archivio Storico, Fondo Agiografico, Rome). The passage is taken from Antonelli, *De inquisizione medico-legali*, p. 58.

²⁶⁴ Antonelli, *De inquisizione medico-legali*, p.62.

²⁶⁵ In Contelori, *Tractatus et praxis*, p. 677.

²⁶⁶ Antonelli, *De inquisizione medico-legali*, p. 65.

²⁶⁷ Antonelli, *De inquisizione medico-legali*, p. 66.

²⁶⁸ Prospero Lambertini, *DSDB* (Bononia 1737), p. 135 (1.17.9); *Aloysii Gonzagae Romana seu Mantuana canonizationis, Positio super miraculis* (Rome 1721), p. 191.

opportunitatem), was still lacking. Their election did not follow any particular rule. Usually, the Rota's auditors required medical experts just when necessary, as when some doubts on the natural recovery of a subject arose during the discussion of the case. Whereas the election of experts was an exception among the Rota, it was customary among the promoters of the cause. The number of experts could change according to the seriousness of the doubts to be resolved. Their task was to declare, on the ground of medical knowledge, whether the alleged miracle was produced by natural causes or not. When they came to an agreement, they put it in writing in a report which they all signed.²⁶⁹ Likewise, the appeal to medical experts also became increasingly common in criminal trials during the seventeenth century, experts whose judgment was strengthened by the general sentence, *Peritis in arte credendum est* (we must give credence to skilled experts).²⁷⁰

Until the first third of seventeenth century, the examination of the cause was entrusted by the pope to three of the Rota's auditors, before it was submitted to the cardinals of the Congregation of Rites and the pope himself. It was only during the pontificate of Innocent X (1644-55), that the Congregation of Rites acquired more power in the canonisation procedure, requiring further medical reports on miracles already approved by the Rota.²⁷¹ For example, during the process of Gregory X in 1645, they asked for a new examination because they thought that the evidence showed by the medical experts requested by the Rota's auditors was not enough. It was a case of alleged miraculous childbirth of a noblewoman from Arezzo. In 1628, the promoters of the cause resorted to two medical experts to examine the miraculous cure. Both Bernardo de Bernardi, physician of Piacenza and Emilio Vezzosi, treating physician of Arezzo, judged the cure as not natural. The Rota's auditors asked a commission of five physicians to further examine the case, among which was Paolo Zacchia. The physicians agreed on the fact that the woman could not had been cured by the medical art or by nature. Even if the miracle was approved by the Rota's auditors and strengthened by a commission of famous Roman medical experts, the process was opened again in 1645, since the cardinal of the Congregation of Rites did not believe that it had been satisfactorily proved that the

²⁶⁹ Antonelli, *De inquisizione medico-legali*, pp. 73-4.

²⁷⁰ Pastore, *Il medico in tribunale*, pp. 25-64.

²⁷¹ Lambertini, *DSDB*, pp. 136-137 (1.17.12-13).

noblewoman's healing miracle had taken place.²⁷² As a consequence, a new medical examination was required on the same miracle, once again undertaken by Zacchia.²⁷³ From this episode onwards, the Congregation of Rites constantly acquired more authority over the Rota's, which ceased to intervene in canonisation trials from the middle of the seventeenth century.

Until the second half of seventeenth century, medical experts were routinely engaged by the promoters of the cause, rarely by the cardinals of the Congregation of Rites. The Congregation of Rites tended to consider medical reports brought by the promoters of the cause as satisfactory. Probably sharing the rule '*peritis in arte credendum est*', medical experts were considered *super partes*, since there was no distinction between the experts of both parties. However, the problem was that medical reports always defended the truthfulness of the miracle, since medical experts were exclusively engaged by the promoters of the cause. It might also happen that the promoter of the cause did not apply for an expert examination. In this precise case, the cardinal *ponente* of the Congregation of Rites, who was the supervisor of the cause, chose a physician or a surgeon to write a *pro veritate* report.²⁷⁴ The medical expert requested by the promoters of the cause was called *ad opportunitatem* or more explicitly *pro miraculo*. Those engaged by the Congregation of Rites were called *ex officio* or *pro veritate*. The latter experts were considered more trustworthy, since they were not paid by the postulator of the cause to defend the case. However, this did not mean that when they disagreed on a miraculous cure that the *pro veritate* expertise was always considered the most truthful.

A decree on the use of medical experts was finally published in 1678:

Since it has also been noted that frequently the promoters of the cause brought medical evidence to confirm miracles, and on the other side this was not replied with experts of the same profession; therefore it seems necessary, since it replies according to the arts, that the great Cardinal Ponente elects *ex officio*, secretly and under oath, another physician or surgeon more famous, who

²⁷² Ditchfield, 'How Not to Be a Counter-Reformation Saint', p. 415.

²⁷³ In eadem causa respondetur, magis praecise ab aliquas obiectiones ab Illustrissimis Dominis Sacrae Congregationis Rituum propositas' in Paolo Zacchia, *QML*, (Amsterdam: ex typographia Joannis Blaeu 1651), p. 678, (9.Consilium X).

²⁷⁴ In Lambertini, *DSDB*, p. 154 (1.19.17).

answers according to truth, to actually see, whether the alleged miracles go beyond natural forces.²⁷⁵

The existing discrepancy between sides was thus removed. However, canon lawyers did not unanimously consider reports of medical experts in canonisation processes as reliable. Whilst canon lawyer Felice Contelori stressed that the reports of two physicians who did not witness the fact were enough to understand whether a cure had surpassed the forces of nature or not, Felice de Matta was more sceptical. He states that medicine was a difficult art and that physicians usually made many mistakes. Furthermore, he notes that there were different schools, such as empiricists and rationalists who disagree on how to cure a disease. Medicines were of an infinite number, as were the therapies which physicians applied. For these reasons, the knowledge of a physician had to be vast: starting from the knowledge of languages that must include not only Latin, but also Greek, since ancient books of Hippocrates and Galen are frequently mistranslated in Latin. They had to be educated in all the sciences: philosophy, grammar, logic, rhetoric, mathematics, geometry, cosmography, physics, etc., but mostly natural philosophy, which was the investigation of natural causes. Mathematics, astronomy and astrology were required to determine the origin of the diseases from the planets; and of course, the knowledge of human anatomy. According to Matta, the problem was that physicians did not see the patient. A medical expert who judged whether a cure was a miracle is like a doctor who wants to cure a patient without being present.²⁷⁶ An absent medical doctor could do a reliable prognosis only if the disease was chronic and long lasting. But the prognosis of an acute disease, that frequently changes over a brief period of time, could not be reliable. Since the only sources to understand the causes of a cure

²⁷⁵ ‘Cum etiam observatum fuerit, saepe Postulatores dare scripturas Medicorum, vel Chirurgorum pro confirmatione miraculorum, et ex alia parte non fuerit solitum responderit per peritos eiusdem professionis; ideo videtur necessarium, ad hoc, ut respondeatur secundum artem, quod Eminentissimus Ponens deputet ex officio, secreto, ac praevio iuramento, alium Medicum, et Chirurghum celebriorem, qui respondeat pro veritate, ad effectum videndi, an asserta miracula excedant vires naturae.’ In Lambertini, *DSDB*, p. 154 (1.19.17).

²⁷⁶ ‘Certum est enim, non plus scire posse medicum absentem pro iudicando facto miraculoso, quam curando aegroto’. Felice De Matta, *Novissimus de sanctorum canonizatione tractatus* (Rome: typis & sumptibus Nicolai Angeli Tinassij 1678) p. 373 (4.12.26).

and to prognosticate the eventuality of a natural cure of a disease were the witnesses' reports, medical experts could not be reliable when they judged cures from acute diseases to be not natural.²⁷⁷

Canon lawyer Agostino Matteucci agreed with Matta that medical experts were not completely reliable when the causes and origins of the disease were unknown and the sick person had not been examined. In fact, in this case, even if the recovery was instantaneous, it was impossible to judge whether it surpassed the faculty of nature. Matteucci argues differently in the case of extrinsic diseases, whose causes and origins were detectable by senses, though the disease was acute or chronic. In fact witnesses could testify in both cases, that those symptoms were present in the sick, which remedies were attempted in vain, that there was not any crisis etc. In these cases, Matteucci states that the presence of a physician was not required. The testimony of the medical doctor who treated the patient was also not necessary in these cases. The judgment of the medical expert writing *pro veritate* was enough: 'the statement of which must be followed, as well as trust must be demonstrated on the art of the expert'.²⁷⁸

By the beginning of eighteenth century, the most trusted medical expert was Giovanni Maria Lancisi (fig. 5). Personal physician to Clement XI (1700-21) and friend of the Promoter of the Faith Prospero Lambertini, Lancisi participated as *pro veritate* expert in no fewer than eleven canonisation processes.²⁷⁹ The Pope favored him with honours and positions, including that of protophysician general of Rome and the Papal States, and granting him the use of a coat of arms and perhaps a diploma of nobility *ad personam* in December 1701. He was, together with Giorgio Baglivi (1668-107), the most influential physician in Rome.²⁸⁰ We shall return to

²⁷⁷ De Matta, *Novissimus*, p. 373 (4.12.27-33).

²⁷⁸ 'quorum attestationsi standum est, et tamquam perti in arte debet fides adhiberi' in Agostino Matteucci, *Practica theologico-canonica* (Venice : apud Nicolaum Pezzana, 1722) pp. 251-52 (3.5.56-59).

²⁷⁹ Giacomo della Marca, Felice da Cantalice, Pope Pius V, Francisco Solano, Stanislao Kostka, Toribio de Mogrovejo, Jean-François Régis, Juan de Prado, Giacinta Marescotti, Gregorio X, Pierre Fourier.

²⁸⁰ Amato Bacchini, *La vita e le opere di Giovanni Maria Lancisi* (Rome: stab. Sansaini 1920); Cesare Preti, 'Giovanni Maria Lancisi' in *Dizionario biografico degli italiani* vol. 63 (Rome: Treccani 2004).

Lancisi's role as expert witness below. Regarding *pro miraculo* medical experts, they ranged widely, from Paolo Manfredi (1640-1716) and Giacomo Sinibaldi (1630-1702), who routinely appeared as *pro miraculo* experts at the end of seventeenth century, to Bartolomeo Santinelli (1644-) and Francesco Soldati, at the beginning of the eighteenth century.²⁸¹

3.3 The consistorial advocate and the promoter of the faith

The investigation of miracles was composed of two stages: the *probatio*, in which the event was reconstructed; and the *relevantia*, in which the event was judged. The subject of the former were facts, hence it belonged to the 'matter of fact' (*quaestio facti*), whilst the subject of the latter was law (*ius*), so it belonged to the 'matter of law' (*quaestio iuris*). An historical fact was a person cured from a disease, a juridical fact was the same person cured miraculously. One of the means of ascertaining a fact was through witness testimonies. Witnesses proved that a specific fact, supposedly miraculous, occurred in an established way. Witnesses' depositions were the only and most important evidence used in trials on miracles. In the canonisation process as well as in a criminal trial, witnesses' credibility depended on a range of different factors: age, since children were considered less credible than older people; sex, since men were more reliable than women; social status, since upper-class people were more trusted than lower-class people; relationship, since a relative tended to confirm the miracle because he or she was emotionally involved with the person cured; and, finally, religion, since a Catholic was thought most reliable.

²⁸¹ Giacomo Sinibaldi was, together with Giovanni Maria Lancisi, the physician of the conclave. He taught *simplicia medicamenta* at the university of Rome (1668-1681) and he was professor of theoretical (1682-1695) and practical medicine (1710-1719). Bartolomeo Santinelli was a physician frequently mentioned by historian because he was extremely cautious regarding the controversial practice of blood transfusion. Francesco Soldati was professor of practical medicine in Rome between 1720 and 1751 and physician of the conclave at the death of Benedict XIII (1730). See Emanuele Conte (ed.) *I Maestri della sapienza di Roma dal 1514 al 1787 : i rotuli e altre fonti* (Rome : Istituto storico italiano per il Medio Evo: 1991).

A church official interviewed witnesses by using a set questionnaire. The first part of the questionnaire aimed to understand the credibility of the witness by enquiring into the points listed above. The second part consisted of the witnesses' accounts of what they saw or heard. Since miracles were considered not perceivable by senses and to have hidden causes, witnesses testified about the previous and subsequent facts, rather than about the miracle itself. For example, in a resurrection, they bore witness to the death of the subject and his subsequent return to life, or, in a miracle of the multiplication of things, they bore witness to the previous lack of bread and wine and the following increase in their number, etc. They had to be either *de visu* witnesses (eyewitnesses) or *de auditu proprio* witnesses (earwitnesses), in order to assess that the fact that occurred. There had to be at least two *de visu* witnesses who were both present at the same time.²⁸²

The key figures at this stage were the consistorial lawyer and the promoter of the faith. They had the task of pinpointing witness testimonies reported in the *summarium* in order to detect any inconsistencies in their depositions. The consistorial lawyer was engaged by the promoter of the cause to examine the first phase of a miracle investigation, called the *probatio*. They supported the cause by resolving any juridical issues, such as incongruences in witness depositions or lack of credibility, often also arguing over medical issues. The relation between the lawyer of the cause and the medical expert *pro veritate* was not always peaceful. In the canonisation process of Pierre Fourier (b. 1730), the lawyer, Tommaso Montecatini, wrote a report in which he protested against the physician, Giovanni Maria Lancisi, because he provided expertise only on the alleged miracles which he believed to be true. The lawyer knew the content of the letter that Lancisi had sent to the promoter of the faith, Lambertini. To his report Montecatini attached the passages in which Lancisi briefly dealt with three alleged miracles, and contested Lancisi's observation of them.²⁸³

This was not an isolated episode, since it happened again in the process of John of the Cross (c. 1726), in which the *pro veritate* physician, Michelangelo Paoli,

²⁸² See: Lambertini, *DSDB*, vol. 3, pp. 2-43 (3.1-6).

²⁸³ 'observationes circa consilia pro veritate I. M. Lancisii', in *SRC [...] Petri Foreri [...] Positio super miraculis* (Rome: Typis Rev. Camerae Apostolicae 1717), pp. 1-2.

considered as superfluous any examination of the alleged miracles which he maintained were produced by natural or artificial causes.²⁸⁴

The lawyer Montecatini understood that negligence on the part of the *pro veritate* medical experts could jeopardize the fairness of the whole enquiry. On the one hand, it would nullify previous reports made by the *pro miraculo* physicians and discredit their judgment; on the other hand, it would hinder any further discussion on miracles not analysed by the *pro veritate* experts. In this episode, the arrogance of the *ex officio* medical experts towards their colleagues and the lawyer of the cause came to the surface, reminding us of the long-lasting friction between the two professions.²⁸⁵

Both medical experts and the consistorial lawyer had to respond to issues raised by the Promoter of the Faith. Initially, the latter was part of the consistorial lawyers who had the role of supporting and defending the rights of the Catholic Church. The fiscal lawyer carried out the task of the Promoter of the Faith, since the latter was established in 1631. He took up the tasks of the Rota's auditors by writing reports for the cardinals and discussing the alleged miracle on legal and medical grounds.²⁸⁶ In 1708, the fiscal lawyer and Promoter of the Faith Prospero Bottino, titular archbishop of Myra, delegated Lambertini as Promoter of the Faith and his nephew as fiscal lawyer, dividing the two positions *de facto*. The Promoter of the Faith had the task of examining the witnesses' declarations thoroughly and painstakingly in order to weed out any inconsistencies in their statements, or else any lack of credibility in the witnesses due to their social status or gender. Furthermore, the Promoter of the Faith evaluated whether the conditions for a miracle were met, namely in a case of a miracle cure, if the presence of a serious disease and the occurrence of a perfect recovery took place. Last but not least, he had to ascertain whether the invocation of the servant of God had really happened. The job of the Promoter of the Faith was in fact twofold: to scrutinise the miracle in question on

²⁸⁴ 'Vota Paoli' in *SRC [...] Ioannis a Cruce [...] Positio* (Rome: Typis Rev. Camerae Apostolicae 1720).

²⁸⁵ Silvia De Renzi, 'Medical Expertise, Bodies and the Law in Early Modern Court' *ISIS* vol. 98, no. 2 (2007), pp. 315-322: p. 320.

²⁸⁶ The office was entrusted to Antonio Cerri from 1631 to 1643, Pietro de Rossi from 1642 to 1673, Prospero Bottini from 1673 to 1712, Prospero Lambertini from 1708 to 1728, Ludovico Valenti from 1734 to 1754. See: Gotor, *Chiesa e santità*, pp. 79-83.

both legal and medical grounds, and to reply to the claims of both the lawyer of the cause and the medical experts, sometimes arguing against both medical experts *pro miraculo* and *pro veritate*. For this reason, the ideal promoter of the faith needed to be familiar with both canon law and medicine. In the final section of this chapter, following a close-up overview of the various steps involved in the enquiry into miracles, I will present a case study in which serious doubts were raised at the *probatio* stage of the process.

3.4 The procedure

We have already seen that the canonisation process consisted of two phases: the ordinary and the apostolic. During the last stage of the apostolic trial, the *informatio* (testimony), in which the witnesses' depositions were recorded, along with the *summarium* (summary), which summarised the miraculous events, were sent to the Promoter of the Faith, who in turn had the task of formulating any *animadversiones* (observations) on each miracle. At this stage, according to the decree of 1678, the cardinal *ponente*, member of the Congregation of Rites and supervisor of the cause, would elect one *pro veritate* expert from among the best physicians and surgeons of Rome; and the promoter of the cause would choose the *pro miraculo* physician. They both had the task of examining the miracles and to reply to the objections made by the Promoter of the Faith.²⁸⁷ Sometimes the *pro miraculo* medical report was sent to the Promoter of the Faith before he had written the *animadversions*, in which case the *pro veritate* report would be added subsequently. At the end of the preliminary stage of the process, the *informatio* and the *summarium*, together with the Promoter of the Faith's *animadversiones* and medical expert's *vota* (reports), were collected to form the *positio super miraculis*, which was brought to each member of the Sacred Congregation of Rites.²⁸⁸

From 1691, members of the Congregation of Rites usually met three times: at the ante-preparatory, the preparatory and the general meeting. The *positio super miraculis* was printed and delivered to each member of the Congregation before they

²⁸⁷ Antonelli, *De inquisitione medico-legali*, pp. 79-80.

²⁸⁸ Antonelli, *De inquisitione medico-legali*, pp. 79-80.

met. At the ante-preparatory meeting the members voted in favour or against the credibility of the alleged miracles (figg. 3-4). Even if their votes had just an advisory value and were not yet deliberative, three-quarters of the votes were necessary for the cause to continue. Usually, during the preparatory meeting, the Promoter of the Faith made some additional observations, especially when the medical reports had been written after his previous observations. If this occurred, the supporter of the cause might ask for new medical experts, and the cardinal *ponente* for new *ex officio* expertise. The new files were then collected together to form the *nova positio super miraculis*, in which a new *summarium*, with additional records to support the truthfulness of the miracles, were also included. During the general meeting, held in the presence of the pope, the Promoter of the Faith could raise new issues (*novissima animadversiones*), taking into account the new reports, which could in turn call for a last medical report by both sides. As in the previous congregation, they would have been collected together with a *factum concordatum* (the agreed fact), in which the case was summarised, to form the *novissima positio super miraculis*, which was printed and delivered to the members of the Congregation. During the general meeting, they were required to make the final vote and defer the final decision to the pope who, directly inspired by God, would make the final and infallible judgment. All causes went through the three Congregation meetings, although not all of them produced a new *positio super miraculis*. Only when doubts arose on one or more alleged miracles was a new *positio* produced, as we shall see in the following case.²⁸⁹

3.4.1 A case study

There were many difficulties along the way to a miracle's approval. In this section we are going to recount those impediments with regard to the *probatio*, which consists of the assessment of the credibility of the witness depositions. Usually this part of the enquiry did not involve any physicians, but only the lawyer and the Promoter of the Faith. Nevertheless, in this case, medical knowledge was used in an attempt to resolve a lack of a *probatio*. This was a crucial stage in the investigation of miracles, since witness depositions were the only sources able to

²⁸⁹ Antonelli, *De inquisitione medico-legali*, pp. 81-84.

reconstruct the facts of the miracle. As a result, they were subject to careful scrutiny. It was usually the Promoter of the Faith who reported any anomalies in the witness depositions. Generally he reported on the lack of the necessary number of *de visu* witnesses, the lack of a deposition from the treating physician; or if witnesses were just women or children who were not considered reliable, or when witnesses contradicted one another.

In the examination of the miracle thirteen in Stanislaw Kostka's beatification process, the Promoter of the Faith Lambertini raised doubts on the reliability of the witnesses because they had said something which was considered impossible (*impossibilia*).²⁹⁰ Since in the legal arena a fact depended on the witnesses' depositions, inconsistencies in their testimony could risk causing the entire scaffolding that sustained the facts to tumble. Whenever the fact was not proven, the miracle had no chance of being considered. The consistorial lawyer was in charge of defending the truthfulness of the facts against the doubts raised by the promoter of the faith. Compliance at this stage of inquiry (*probatio*) was the *conditio sine qua non* to move on to the following stage, during which the conditions for a miracle to happen (*relevantia*) were assessed. Let us analyse the prospective miracle in detail.

In 1674, captain Antonio Rodriguez from Lima, Peru, bought two slaves from Ethiopia, as domestic servants. Soon, the captain sold one of them since he was not suited for the required job. This fact caused desperation to the slave's partner, to the point that, after he was chained and left alone, he took a knife that he was hiding and cut his own throat. He was lying in the middle of the room, ejecting a huge quantity of blood. A physician, who was passing by, noticed a gathering in the captain's house and entered. He saw the slave bleeding through his open throat and judged that there were no possibilities of recovery for the man. The captain, who did not despair, fetched two surgeons and insisted that one of them sew the slave's wound, despite both maintaining that the case of the man was untreatable. The slave was baptised and, as last resort, the sister of the captain's wife appealed to the

²⁹⁰ Stanislaw Kostka, born in 1550, came from a noble family. At the age of thirteen he was sent to study at the Jesuit School in Vienna, as required by the Austrian Emperor. Stanislaw, while forced into temporary housing, remained devoted and diligent. During the course of a serious illness, the idea of being a Jesuit matured. He fled Vienna to Dillingen. Despite his father's reaction, the young man was unmoving. He went to Rome for his novitiate. He died at eighteen, in 1568. He was the first Blessed of the Company, in 1605 and canonised in 1726.

blessed Stanislaw Kostka and placed an image of him on the wound. The slave suddenly stopped bleeding and started to speak, whereupon he completely recovered in a couple of weeks.²⁹¹

As we have seen in the previous two chapters, one of the conditions for a miracle to be judged to occur was that it exceeded the forces of nature. Thus the depositions of the witnesses over the seriousness of the wound were crucial. The two surgeons said that they inserted a hand in the wound until the fingers appeared in the mouth. Other witnesses, asked to testify about the seriousness of the wound, answered that it was so large that you could introduce the hand into the mouth and the fingers would have appeared out of the wound. Other witnesses testified in the same way that the surgeon introduced his hand into the mouth.²⁹² Another fact, which helped to understand the seriousness of the wound, was that almost all the witnesses described the slave lying on the ground like a slaughtered ox spraying a huge quantity of blood.²⁹³ These two facts, together with the declaration of the physician and the surgeons on the impossibility of his survival, were the only elements available to the medical experts upon which to judge whether there was evidence of a non-natural recovery of the slave. However before this stage, there was a crucial examination to pass, the *probatio*.

The recovery of the Ethiopian slave occurred in Lima, thus in the New World. The problem was that, by 1674, the ordinary stage of the process, in which the witnesses' depositions were collected to persuade the Roman Church to start a process towards the sainthood of Stanislaw Kostka, had already been closed. Nevertheless, the *informatio* and the *summarium* of the miracle, together with another miracle that occurred in Lima, were attached to the 1677 *positio super miraculis*. This addition *in extremis* caused a delay of twenty years, during which the apostolic process on the miracles of Lima started, when witnesses were officially heard. The problem was that after twenty years, some witnesses were dead or could not be found. A second issue was that the witnesses' depositions collected previously

²⁹¹ 'Summarium testium super XIII miraculo', in *SRC [...] Stanislai Kostkae [...] Positio super dubio* (Rome: Rev. Camerae Apostolicae 1710), pp. 224-226.

²⁹² 'Summarium testium super XIII miraculo', in *SRC [...] Stanislai Kostkae [...] Positio super dubio*, p. 240.

²⁹³ 'Summarium testium super XIII miraculo', in *SRC [...] Stanislai Kostkae [...] Positio super dubio*, p. 239.

were not considered valid for investigation, since they had been collected when the ordinary process was already closed. This included the crucial testimony of the two surgeons. Therefore, the only witnesses taken into account were those heard during the apostolic stage which occurred twenty years after the facts and, as expert witness, included only the physician who had not participated directly in the event.

Consequently, during the ante-preparatory congregation held in February 1711, the Promoter of the Faith Lambertini raised doubts regarding the Ethiopian's miraculous recovery. He claimed that there was a lack of *probatio*, since the only physician who testified in the apostolic enquiry was not informed enough on the facts (*non penitus informatus de rei substantia*). The physician had testified that when he entered in the room, he saw the Ethiopian on the ground bleeding, which was a sign that the jugular veins were cut; and breathing from the wound, which is a sign that the oesophagus was slashed. As the physician judged that the man was going to die without any possibility of a cure, he went out of the house, without seeing the actual recovery of the man.²⁹⁴ Regarding the *relevantia* of the prospective miracle, the promoter of the faith agreed on the seriousness of the wound and on the danger to the Ethiopian's life. However, Lambertini claimed that the wound was partially cured by the surgeon, that the man could have survived because he was young and strong, and that his recovery did not occur immediately. Hence, the Promoter of the Faith concluded that it was not a miracle since the wound was not untreatable and the man did not recover immediately.²⁹⁵

The lawyer of the cause, Tommaso Montecatini, claimed that despite the invalidity of the ordinary process, in the apostolic process three *de visu* witnesses and one physician were heard, complying with the minimum number of witness requested by the *probatio*. Furthermore, Montecatini went on, on March 1711, a month after the meeting of the ante-preparatory Congregation, an experiment was undertaken in the cemetery of the hospital of Santissimo Salvatore ad Sancta Sanctorum in Rome, by the primary surgeon there, the substitute surgeon and the physician, in front of five more witnesses. They cut the throat of a dead body and repeatedly inserted a hand in the mouth of the corpse until the fingers came out from

²⁹⁴ 'Summariium testium super XIII miraculo', in *SRC [...] Stanislai Kostkae [...] Positio super dubio*, p. 245-246.

²⁹⁵ 'Summariium testium super XIII miraculo', in *SRC [...] Stanislai Kostkae [...] Positio super dubio*, p. 245-246.

the wound of the throat.²⁹⁶ In this way they produced a similar wound to the one inflicted by the Ethiopian.

Subsequently, an anatomical picture was drawn (fig. 1) and inserted into the additional part of the *positio* and commented on by the *pro miraculo* physician, Paolo Manfredi. The upper picture represents all the parts of the throat except the muscles. The lower picture represents the diameter of all the parts of the throat. The middle right picture represents the measurement of circumference of the throat and the middle left the transversal section of the throat, including the larynx. The anatomical drawing and the measurement taken directly on the body were an extremely valued addition to the witnesses' declarations. Manfredi used the experiment to prove, first of all, that the dissection of the oesophagus and the trachea occurred, because the hand could not have been introduced from the wound to the mouth if the two tubes were not cut. Secondly, it showed that the introduction of a hand into the wound proved that the width of the wound was so large that the other parts of the throat were cut, such as blood vessels and muscles. That was also proved by the description of the Ethiopian spraying a huge quantity of blood like an ox, which testified to the severing of major blood vessels.²⁹⁷ Thus, from the experiment, Manfredi obtained a large quantity of information supplying the lack of *probatio*.

It was then the turn of the medical expert *pro veritate* to examine the case with objectivity and extreme carefulness. The physician in charge was Giovanni Maria Lancisi. Lancisi did not refer to the cemetery experiment and denied that the jugular veins and the carotid artery (*aorta carotideae*) of the man were cut.²⁹⁸ He accused the witnesses of false testimony when they stated that the wound was so large and deep that the fingers inserted from the mouth came out from the wound. For Lancisi this was impossible, because the re-section of the jugular veins together with the carotid artery would have caused the death of the man before the arrival of the physicians and his baptism, which occurred within one hour. The effusion of a large quantity of blood and the dripping of the blood into the lungs would have

²⁹⁶ 'Summarium' in *SRC [...] Stanislai Kostkae [...] Positio secunda super miraculis* (Rome: Rev. Camerae Apostolicae 1711/1712), p. 75.

²⁹⁷ 'Votum Pauli manfredi [...] approbatum etiam a Bartholomeo Simoncello' in *Positio super miraculis* (Rome: 1710) pp. 288-89.

²⁹⁸ We do not really know if Lancisi knew about the cemetery experiment since it could have occurred after he wrote his report.

caused, in the first case, death by bleeding, and in the second case, death by suffocation. Furthermore, Lancisi claimed that it was impossible, even for a hand with very long fingers, to reach the wound in the trachea, since the cut was too far away. He only recognised the possibility that the fingers could go the opposite way, from the wound to the mouth. According to Lancisi, some witnesses exaggerated imprudently in their declarations.²⁹⁹ By denying the reliability of some of the witnesses, Lancisi went beyond the limits of his role as medical expert, as he should not have refuted the facts already verified by the lawyer and the promoter of the faith. We will see how canon lawyers admonished this behaviour in the next chapter. In any case, Lancisi's accusations were relevant and were taken into account by the Promoter of the Faith in his second report during the following Congregation meeting.

The ordinary Congregation met on May 1711. The incipit of Lambertini's report sounds as a criticism against the importance given to the physicians' inquiry, compared to the previous investigation made by lawyers, again revealing a long-lasting friction between the two professions.

After Lancisi's report, I should have given up further investigations, however, since always more often happens that the lawyer works hard to find out evidence to prove the fact, and subsequently the physician shows that it lacks *relevantia*, therefore it should not be any wonder that after the physician had admitted the *relevantia*, the lawyer proved the lack of *probatio*.³⁰⁰

Meaning that not only the doctor's report can deny the work done beforehand by the lawyer, but also the lawyer's report in the following *positio* can deny the work previously done by the doctor. After this premise, Lambertini claimed that the witnesses who declared the circumstances according to which the recovery of the Ethiopian should be considered a miracle, declared something impossible

²⁹⁹ 'Votum pro veritate [...] Mariae Lancisii' in *Positio secunda super miraculis* (Rome: 1711/1712), pp. xxiii-xviii.

³⁰⁰ 'Postquam vir tanti nominis suum protulit sensum, deberem a qualibet ulteriori indagine abstinere; at quia saepe saepius fit, ut postquam iurista laboravit pro facti specie adstruenda, physicus in examine miraculorum ostendat deesse relevantiam, mirum idcirco esse non debet si aliquando postquam physicus relevantiam admisit, iurista demonstret deesse probationem'; 'Novae animadversiones fidei promotoris' in *Positio secunda super miraculis*, p. vii.

(*impossibilia*), invalidating the whole *probatio*. Firstly, although it was possible for the fingers inserted into the wound to appear to those who were looking at the mouth, the opposite way was impossible because of the distance between the two and the reach of the subject. Secondly, the witnesses reported that the Ethiopian lived longer than he actually could. He should have died of bleeding and suffocation before the physicians could come and cure the wound; as well as before the cleric could have baptised the man and the image be laid on his wound. Even if there were claims that the fact that he did not die was a miracle, continues Lambertini, this happened before the invocation of the blessed Kostka which was a necessary premise. He finally claimed the substantial relevance of the issue by referring to the contemporary jurisprudence on witnesses: Prospero Farinacci, Giuseppe Mascardi and Giacomo Menochio.³⁰¹ Whenever witnesses declared that something happened which could not have (*impossibilia*), this could cause the entire structure of the process collapse. Since in a trial, the fact itself was based on witness depositions, if they contradicted one another or affirmed something improbable, or lacked reliability because of their social condition, gender etc., then the facts did not legally occur.³⁰²

Conscious of the gravity of the observations made by Lambertini, Montecatini, the lawyer of the cause, opposed Lancisi and Lambertini's presumptions on the evidence of the experiment. Through an anatomical experiment on a corpse, it was proved that the witnesses did not depose falsely. Just as the corpse did not resist the entrance of the fingers through the mouth, he continued, so the Ethiopian, being half dead would not wretch or buck in any way. Moreover, even if the witnesses did not say anything about the cutting of the jugular veins and the carotid artery, the *pro miraculo* physician Manfredi proved that, according to geometry, it had to have happened.³⁰³

In this case the experiment was used to supply a lack in witness depositions. It was claimed that an experiment or a geometrical demonstration could substitute for the eyes of a witness, proving that the fact really could have happened in the way

³⁰¹ Prospero Farinacci, *Tractatus de testibus*, (Venice: apud haeredes Iohannis Varisci, 1596) q.67 n.141; Giuseppe Mascardi, *De probationibus* (Lion : apud Guilielmum Rouillium, 1589) conclus.743 n.1; and Giacomo Menochio, *Tractatum de praesumptionibus*, (Turin: Giovanni Domenico Tarino, 1589) lib. 5, praesumpt.22, n.2.

³⁰² 'Novae animadversiones fidei promotoris' in *Positio secunda super miraculis* pp. iv-viii.

³⁰³ 'Responsio facti et iuris' in *Positio secunda super miraculis*, pp. 29-31.

claimed; even if the alleged miracle was not approved. In the next two chapters we will see in greater detail how mathematics, geometry and mechanical explanations were frequently used by medical experts to fill the lack of *probatio* in early-eighteenth canonisation trials.

Theoretically, only the cardinals of the Congregation of Rites and the pope judged the alleged miracle on theological grounds, classifying it according to the three types of miracles identified in Aquinas's treatises. However, it frequently happened that at the end of their reports the Promoter of the Faith, the lawyer of the cause and the medical experts declared whether the alleged miracle could be classified in one of the three degrees of miracles and in which one. In our case, the physician Manfredi devoted more than a few words to support his judgment. He stated that the event consisted of 'a miracle before a miracle' (*miraculum ad miraculum*), namely that the Ethiopian miraculously escaped from certain death before recovering miraculously from the wound to his throat.³⁰⁴ Furthermore, Manfredi also noted that the canon lawyer, Felice de Matta, classified the returning of the voice to a mute person as a miracle of the second type, whenever the cutting of nerves provoked the perpetual absence of voice.³⁰⁵ He also noted that Bordoni classified it as a miracle of the first type.³⁰⁶ Accordingly, Manfredi claimed that the recovery of the Ethiopian was not just a miracle because it occurred suddenly, but because of the substance of the fact, which was impossible by nature. He gave the example of a broken crock divided in two parts: we can put the parts together and glue them if the parts are closed, but if they were not closed together it would be impossible. Manfredi concluded that the same happened with the Ethiopian's jugular parts, which were separated and not just partially cut. In this case nature or even art could never reunite the parts. For this reason, the recovery had to be classified as a miracle *quoad substantiam* not a miracle *quoad modum*.³⁰⁷ In any case, when the general congregation met on May 1713, the Ethiopian slave's recovery was not judged a miracle.

³⁰⁴ 'Votum Pauli Manfredi' in *Positio super miraculis.*, pp.297-98.

³⁰⁵ Felice Matta, *Novissimus de sanctorum canonizatione tractatus*, p. 172 (3.8.22).

³⁰⁶ Francesco Bordoni, *De miraculis*, pp. 124-25 (9.19).

³⁰⁷ 'Votum Pauli Manfredi' in *Positio super miraculis* (Rome: 1710), pp. 298-99.

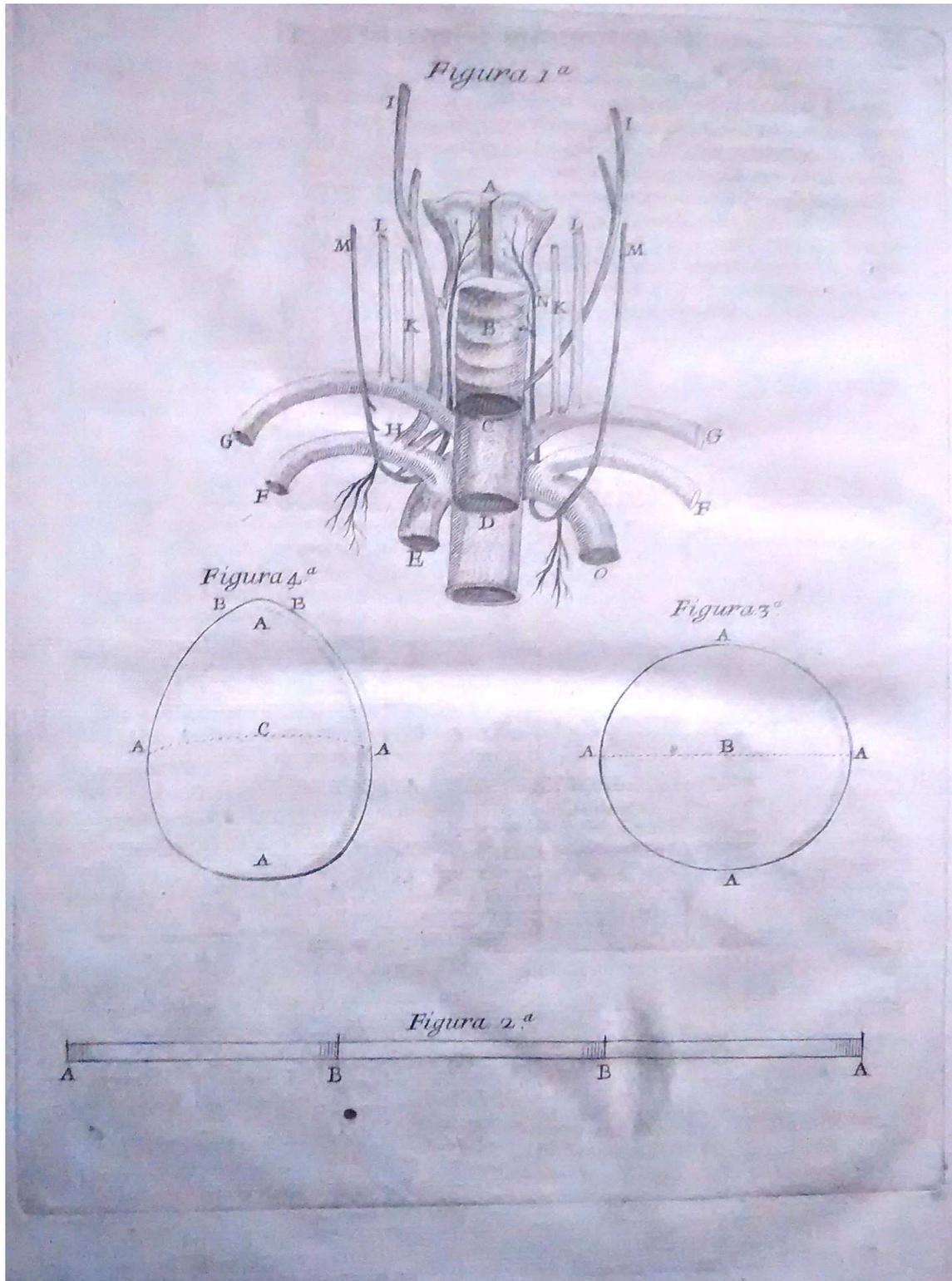


Fig. 1 Sections of the throat in SRC [...] Stanislaw Kostka [...] Positio super dubio (Rome: Rev. Camerae Apostolicae 1710).

3.5 Conclusion

Whereas in the first two chapters we focused on the broader philosophical and theological issues concerned with miracles, in this chapter we have analysed the juridical aspects involved in a canonisation process. In the first section we presented the history of the canonisation procedure, stressing the juridical turn which occurred by the middle of the sixteenth century and which also coincided with the change in the meaning of miracles in itself, from signs to facts. The shift of miracles into facts was due to the specificity of the time, which required facts to support something against something else, as the Catholic belief in miracles against the denial of their existence by Protestants; and facts to be examined by medical experts. In the second section, we focused on the three figures who together made up the miracle inquiry: the medical experts, the consistorial lawyer and the Promoter of the Faith. The debate among these three figures was frequently heated, to ensure that the assessment between a true and false miracle was carefully made. Following a brief outline of the stages of the process, the fourth section involved a case study in which we analysed the first stage of the inquiry, the *probatio* and also partially the second stage, the *relevantia*. We saw how experiment entered the process as a means of evidence, trying to supplement a lack in the witnesses's depositions.

This chapter also has the function of linking the first and second parts of this dissertation. I have sought to provide the reader with the necessary tools to understand, in juridical terms, the nature of the inquiry into miracles in an early-eighteenth-century canonisation process. The second part of this thesis will focus on the role played by natural philosophy in the canonisation procedure. We shall also return to the main argument of my dissertation, which is to understand the reasons for Lambertini's significant changes to the concept of miracle.

PART II

Chapter Four

Healing Miracles

In the first part of my dissertation I focused my attention exclusively on treatises written by theologians and canon lawyers. In the second part I will move on from theology to concentrate on medicine and natural philosophy. Whereas scholastic theology was the framework within which a new concept of miracle developed during the Middle Ages, in the early eighteenth century the context became natural philosophy. Besides the institutional and religious changes that occurred throughout the sixteenth and seventeenth century, such as the Christian schism and the centralisation of the Catholic Church power, so did the declining of Aristotle's method of inquiry. Natural philosophers, such as Galileo Galilei (1564-1642) and Pierre Gassendi (1592-1655), abandoned the Aristotelian idea of substance composed of form and matter and the related method of inquiry by the means of the four causes, in favor of a new idea of matter composed of corpuscles or atoms that join or separate one another to constitute a new idea of nature.

Keeping this changed framework in mind, we are going to examine a specific degree of miracles, which was the most susceptible to the cultural shift: the miracle *quoad modum* (according to the way it happens). As we have seen in the first chapter this class of miracle developed in the Middle Ages in a reborn Aristotelian framework, in which nature was a compound of the visible and corporeal as well as the invisible and spiritual. The Medieval definition of miracle as something surpassing the whole of the order of nature meant that miracles had to overcome the corporeal and spiritual nature, assuming the existence of a clear-cut boundary between the invisible and spiritual order of nature and the divine. The problem was that, as long as medical experts were in charge of detecting this exceeding of the boundaries of the natural, they referred to the new concept of nature developed in natural philosophy, the limit of which did not include invisible and spiritual creatures. Consequently, the preternatural was partly subsumed into the supernatural.

An insight into the inquiry on healing miracles will help us to understand the theological consequences of this cultural shift, which led Prospero Lambertini to develop a new classification of miracles into major (*maiora*) and minor (*minora*). As

we have seen in the second chapter, the former were the miracles that surpassed the forces of the whole of created nature (*excedere vires totius naturae creatae*), the latter included the ones that simply exceeded the forces of the corporeal and visible nature (*excedere vires naturae tantum corporeae et visibilis*).³⁰⁸ We will see the crucial role that medical experts played in the inquiry of healing miracles, how they overcame the limits of their duty, belittling the work done by the canon lawyer and the promoter of the faith.

Since I will be examining trials in which Lambertini was Promoter of the Faith, it is evident that the classification of miracle explained in his treatise was not applied as it perhaps had not yet come up to his mind. Indeed at the time, the Promoter of the Faith, postulators and medical experts used Thomas Aquinas's classification of miracles into first, second and third degrees.³⁰⁹ Lambertini's concept of *miracula minora* can be included within miracles of the third degree, which in Aquinas' classification, are miracles surpassing the forces of nature according to the way they happened. However, they do not exactly coincide with them, since for Lambertini *miracula minora* are also performed by angels, thus they are no longer beyond their power.

As we have seen in the second chapter, Lambertini came to this point after working for twenty years as a Promoter of the Faith in beatification and canonisation trials. One of the main points of my dissertation is that he came to a reconsideration of the classification of miracles because of his personal experience with miracles inquiries. It was the application of contemporary theology that revealed the discrepancy between theory and practice. Lambertini had to modify miracle classification in order to avoid the delegitimation of the entire process of miracle assessment, since numerous miraculous cures of the third degree had already been adjudicated as miracles in previous canonisation processes. The issue occurred when a new idea of nature came to be considered in the assessment of miracles by medical experts, which happened when the inquiry on miracles was reorganised during the

³⁰⁸ Prospero Lambertini, *DSDB* (Bononia: Formis Longhi Excusotis Archiepiscopalis 1738), p. 14 (4.1.15).

³⁰⁹ See chapter 1.

seventeenth century and physicians became a crucial point of reference, due to their recognized expertise on the natural.³¹⁰

Miracles of the third degree tell us one of the possible relationships occurring between the natural and the supernatural, as argued by Aquinas, precisely when something occurs beyond nature (*praeter naturam*).³¹¹ The problem is that from the end of seventeenth century, the relation between the natural and the supernatural began to change. As historian Lorraine Daston argued, the category of the preternatural collapsed partly into the natural and partly into the supernatural realms.³¹² The mechanical philosophy then applied in the assessment of miracles challenged the Thomist classification of miracles. A close glimpse at miracles of the third degree will tell us more about this cultural shift. I will argue that the application of the new idea of nature as a paradigm in canonisation and beatification trials caused the vanishing of the boundaries between the preternatural and the supernatural. The result was the collapse of the preternatural into the supernatural and Lambertini's subsequent proposal of miracles only surpassing the visible and corporeal order of nature (*miracula minora*).

Since I will solely deal here with miracles of the third degree, which were not defined as contrary to nature but just beyond it, the other important issue raised by Lambertini, concerning the break with natural laws, will not be examined here but in chapter five. In the first section of this chapter, I will examine the three pillars that constituted a healing miracle, each of which is the subject of its own sub-section: the diagnosis of the severity of the disease (4.1.1), the sudden and perfect recovery (4.1.2), and the invocation of the servant of God (4.1.3). I will focus mostly on the definition of natural cure, since it was the paradigm by which the overcoming of natural boundaries was detected and measured. The aim of the first section is not primarily a better understanding of diagnosis and prognosis in the early modern period. Rather the aim is twofold: to make the case for the application of the course of nature as the main paradigm in the identification of miracles; and to highlight one kind of relationship between the natural and the supernatural that happens in miracles of the third degree, namely that beyond natural boundaries. In the second

³¹⁰ See chapter 3.

³¹¹ See chapter 1.

³¹² Lorraine Daston, 'The Nature of Nature in Early Modern Europe' in *Configurations* vol. 6, No. 2 (1998) pp. 149-172.

section, I will present and analyse a single case study, concerning a miraculous childbirth. The aim here is to present a miracle whose natural course was not yet defined in the period, like childbirth, and see how the new idea of nature was able to detect it.

Both the first and second sections serve the purpose of leading to a better understanding of how the application of the new idea of nature shaped the supernatural. This is not a chapter on the history of medicine in a strict sense, even if I will deal with diseases and recoveries from them, using historical literature on specific topics to illustrate my points. The focus remains the boundaries of natural and the changing relationship between the natural and the supernatural. For this reason, there will not be a detailed discussion of every aspect of the medical-historical literature, where it is not relevant for the sake of the chapter.

4.1 Healing miracles

Historian Jacalyn Duffin has conducted an important study on healing miracles in the early modern period, using the same kind of sources I will be using here.³¹³ However, her research is quantitative, whereas my approach is qualitative. Besides, I am not merely using the summaries and interrogations on miracles, but rely primarily on the much more detailed and problematic reports of physicians, the Promoter of the Faith and postulators of the cause, which represent the moment of the inquiry and assessment of the miracle. In this chapter, I will combine an exploration of theory and practice, examining what elements constituted a healing miracle as canon lawyers discussed them, with examples drawn from among the *positiones super miraculis*.³¹⁴ The focus is on the apostolic stage of the miracle inquiry, as a part of the canonisation trial where the protagonists of the inquiry were not witnesses but medical experts and canon lawyers who lived and worked in Rome. The doctors who appear in Duffin's book are not the same doctors I am

³¹³ Jacalyn Duffin *Medical Miracles: Doctors, Saints and Healing in the Modern World* (Oxford-New York: Oxford University Press 2009).

³¹⁴ See chapter 3.

dealing with; mine were neither witnesses to the miracle nor the treating physicians of the healed sick.³¹⁵

Historians have recently wanted to avoid using the old ‘popular/elite’ dichotomy that have dominated early modern social history and the social history of medicine. Instead they use alternative models such as ‘medical pluralism’ to identify the early modern cultural frame in which cures occurred and in which the sick moved in search for a cure.³¹⁶ This concept has the merit of opening an often too narrow idea of cure, based on present experience, which does not encompass the complexity of early modern medicine. Historian David Gentilcore explains medical pluralism, using a Venn diagram composed of three overlapping spheres: ecclesiastical, popular and medical. Within these spheres, sick people used to move in order to find the better way to cure their diseases. The areas also overlap, the better to understand the peculiarity of the region or historical period under examination. For example, hospitals fit into the intersection of the ecclesiastical and the medical sphere, since in early modern Italy many hospitals were religious institutions and they were run by clerics with surgeons and physicians as staff. Cunning folk, who frequently used the sign of the cross and prayers to cure their patients, fit into the intersection between ecclesiastical and popular spheres. From a theological point of view, healing miracles should be positioned in the ecclesiastical sphere of the diagram, since their assessment is under the control of the Church by means of the beatification and canonisation trials. It has nothing to do with magic, since the author of a spell is a demon not God; and it has nothing to do with medicine, since it exceeds the forces of nature. However, it involves people from different social classes, as well as physicians in an indirect way, as we have seen in the previous chapter. Furthermore, the saint and the physician, as well as the healing

³¹⁵ Duffin *Medical Miracles*, pp. 113-43.

³¹⁶ The literature over medical pluralism is huge, here are just some examples: David Gentilcore David, *Healers and Healing in Early Modern Italy* (Manchester: Manchester University Press 1998); Jutte Robert (ed.), *Medical Pluralism. Past-Present-Future* (Franz Steiner Verlag 2013). Instead, Brockliss and Jones use the model ‘core and ‘penumbra’ see Laurence Brockliss, Colin Jones, *The Medical World of Early Modern France* (Oxford-New York: Oxford University Press 1997). Since Harold Cook described English seventeenth-century medicine as a ‘medical marketplace’, the model has become dominant among UK historians, see Harold Cook, *The Decline of the Old Medical Regime in Stuart London* (Ithaca: Cornell University Press 1986).

miracle and the natural cure are complementary and not antagonists. In the miracle inquiry, the doctor's testimony is crucial. The declaration made by the treating physician that there were no more chances of recovery is the *conditio sine qua non* for the identification of a miraculous recovery. Finally, the failure of the art of medicine in the treatment of a disease highlights the limits of human understanding, as well as their capacity to act in the natural world, revealing the presence of the supernatural.³¹⁷

Healing miracles are the most frequent, as emerges from Duffin's research, constituting, from the fifteenth century onwards, ninety per cent of all miracles.³¹⁸ It is a category which includes all recoveries from diseases which are incurable or hardly curable by nature. For example, resurrections and miraculous childbirths are not considered healing miracles, because they are not recoveries from diseases. What links all healing miracles is that, despite the specific diseases, they share the possibility of the same natural recovery. Their classification differs according to the coeval classification of diseases. In his treatise, Lambertini deals with the healings of mute, deaf and blind, cripples and paralytics, epileptics, hysterics, maniacs and hydrophobics, sufferers from hernias, tumours and haemorrhages and various kinds of fevers. According to Duffin's research, the most frequent were recoveries from fevers, as well as orthopaedic problems that includes club-foot, arthritis, cripples, fractures etc.³¹⁹

The early modern pathological model was still based on humoral theory. Diseases arose from a complex imbalance of the four humors, in terms of surplus or lack of blood, phlegm, yellow and black bile in the body. A natural cure consisted of the digestion, neutralisation and expulsion of the morbid matter from the body in sweat, spittle, vomit and the like. The disease was believed to consist of four stages: *principium*, when the signs of the disease are first noted and the morbid matter is produced; *augmentum*, when nature starts to struggle against the disease; *status*, the climax of the disease process, when all the symptoms are extremely evident;

³¹⁷ Jean-Michel Sallmann, *Santi barocchi. Modelli di santità, pratiche devozionali e comportamenti religiosi nel regno di Napoli dal 1540 al 1750*, trans. by Carla Rabuffetti (Lecce: Argo 1996), p.452.

³¹⁸ Duffin, *Medical miracles*, p. 73.

³¹⁹ Duffin, *Medical miracles*, p. 88.

declinatio, when the patient begins to return to health.³²⁰ Concoction (*concoctio*) is the first action through which nature tries to cure the body: ‘natura morbos superat concoquendo’ as Paolo Zacchia says.³²¹ The way through which nature rejects bad humour using the body’s native heat is the action of *concoctio*. Concoction is the mutation or perfection of something in the same genre caused by native heat.³²² According to early modern medicine, there were four types of concoction: of food, of humours, of excrements and of the cause of the disease. The concoction of morbid matter could happen in many ways, depending on the kind of disease: through the separation of the harmful humour from the rest or through the transition of bad humours to good ones, followed by its evacuation.³²³

The role of early modern physicians was to predict the course of the disease (*prognosis*) and to prescribe the treatment and diet appropriate to each stage. The healing power is not possessed by the art of medicine but by nature itself (*vis medicatrix naturae*). The physician has the role of helping along the healing process of nature. He helps nature remove those obstacles which prevent the course of recovery. The foreknowledge of the course of the disease towards the death or life of the patient gives room to the action of another ‘minister of health’, the priest, who, through the sacrament of extreme unction, gives a possibility for the soul to be saved.³²⁴

The natural course of a disease towards health has the function of a paradigm compared to miraculous healing, since all that exceeds the forces of nature, either in respect to the subject or in respect to the way it happens, is suited for identification as a miracle. Miracle cures are performed by God, as are any other miracles. However, as I have shown in the second chapter, angels are able to cure some light

³²⁰ Michael McVaugh, The future of a disease: the impact of Galen’s *De crisi* on medieval medical thought, in Katrin Bauer, Alexandra Fidora (eds) *Die mantischen Künste und die Epistemologie prognostischer Wissenschaften* (Cologne-Weimar-Vienna: Bohlau 2013), pp. 131-50: 135.

³²¹ Paolo Zacchia, *QML*, vol. 3 (Lyon: sumptibus Anisson et Posuel 1661), p. 140 (10. cons.8. 4).

³²² Aristotle, *Meteorology*, trans. by E. W. Webster in *The Complete Works of Aristotle: The Revised Oxford Translation*, Jonathan Barnes, vol.1, (Princeton: Princeton University Press 1984), pp. 555-625 bk. IV, c.3.

³²³ Niccolò Lanzani, *Vero metodo di servirsi dell’acqua fredda nelle febbri* (Napoli: de Bonis 1723), pp. 109-111.

³²⁴ Maria Pia Donato, *Sudden Death: Medicine and Religion in Eighteenth-Century Rome* (Abingdon-on-Thames: Routledge 2014), pp. 143-166.

diseases. Usually a healing miracle is worked by touching a relic, which can be an image of a servant of god or blessed, or anything else that had to do with the servant of god: pieces of cloth, a part of the body, or whatever he or she has touched throughout life.³²⁵

Healing miracles could belong to the second or to the third degree of miracle. The first degree of miracle regarded a change in the substance of something, which never occurred in healings. To the second degree belonged those diseases which nature could not cure, such as congenital blindness, congenital paralysis etc.. To the third belonged those diseases that could be cured by nature and art but not in the same way. The former healing miracles were almost certain; the latter needed much more care in evaluation. Consequently, some canon lawyers distinguished the features that a healing miracle of the second degree should have in respect to a healing miracle of the third degree. Angelo Rocca, Felice de Matta and Paolo Zacchia did not make any distinction between them. Felice Contelori, Francesco Bordoni, Brancati di Lauria and Agostino Matteucci did make a distinction between them, however. The reason is that some canon lawyers tended to stress the fact that healing miracles of the second degree could not be doubted because they were contrary to nature: nature could never cure congenital blindness or paralysis; nor could the art of medicine.

Whereas I will deal with specific miracles of the second degree in the next chapter, I am now going to focus on miracles of the third degree. It was in dealing with this kind of miracle that Lambertini noticed an anomaly: namely, that healing miracles of the third degree do not exceed the whole order of created nature.

Healing miracles of the third degree were also the most problematic. It was Zacchia who first identified the essential criteria to which a recovery from a disease should respond in order for it to be identified as a miracle. He identified three different classes of requirements: some according to the disease, some according to

³²⁵ Sallmann, *Santi barocchi*, pp.424-37. For a deeper insight: Julia M. H. Smith, 'Portable Christianity: Relics in the Medieval West (c. 700-1200)' *Proceedings of the British Academy*, 181 (2012), pp. 143–167; Cynthia Hahn, 'What do reliquaries do for relics?' in *Numen* 57 (2010) pp. 284-316; the catalogue of the exhibition on relics: Martina Bagnoli, C. Griffith Mann, James Robinson, Holger Klein (eds), *Treasures of Heaven: Saints, Relics, and Devotion in Medieval Europe* (Baltimore: The Walters Arts Museum 2010).

the cure and finally, the patient's invocation. The disease had to be serious, not to be in its final stage and it must not be a relapse. The cure had to happen suddenly, had to be complete, and without any medical 'crisis' or medication given to the patient. (The medical concept of crisis will be discussed in section 4.1.2.) The invocation has to be addressed towards a precise servant of God or blessed and it must be sincere.³²⁶ These three pivots of the healing miracle represent also the three parts in which a medical report is usually subdivided. Let us begin by looking at the first requirement, relating to the characterisation of the disease itself.

4.1.1 The severity of the disease

A disease could be incurable or curable by nature and art. A miracle of the second degree happened when an incurable disease was cured; a miracle of the third degree occurred when a curable disease was cured in a way that nature or art could never do. Accordingly, as Zacchia points out in his treatise, the first step in the assessment of a miracle was to decide whether the disease was incurable or hardly curable by nature.

The conditions [of miracle] which belong to the disease were, firstly, that the cure was impossible or extremely unlikely. All the difficulties in respect of time, the nature of the disease itself, and to the manner of treatment must be considered; or the disease was impossible or difficult to be cure, or it was impossible or difficult to be cured in this way, or to be cured in such a short time.³²⁷

As we have seen in the previous chapter, the first stage of a miracle inquiry was to ascertain the reliability of witnesses' depositions (*probatio*), which would

³²⁶ Paolo Zacchia, *QML* (Amsterdam: ex typographia Joannis Blaeu 1651), pp.224-225.

³²⁷ 'Ex parte enim morbis requiritur primo, ut curatu vel impossibilis, vel maxime saltem difficilis extiterit; quia miracula, ut alias dixi, sunt circa ardua, et difficilia, non circa leviora, habenda tamen consideratio impossibilitatis, e difficultatis respectu temporis, respectu naturae ipsius morbi, et respectu modi curandi. Nam vel morbus erat difficilis, et impossibilis omnino, ut curaretur, vel impossibilis, et difficilis erat ut curaretur eo modo, vel ut curaretur tam brevi temporis spatio.' Zacchia, *QML*, p. 224 (4.8.4).

have become the facts on which medical experts based their reports. The mental operation imposed on the physician was unusual, since he usually foresaw the course of a disease suffered by a patient using his senses when visiting the patient, although the practice of healing by mail was also quite common at the time.³²⁸ On this occasion, he had to rely on witnesses who were sometimes not physicians. If the diagnosis and prognosis consisted on conjectures based on the symptoms of the sick body, it became increasingly frustrating when the only information a doctor could use was not directly collected by him but had to be filtered through the senses of other people who often did not have the skills to interpret what they saw. Giovanni Maria Lancisi (1654-1720)--personal physician to Pope Clement XI (1700-21) and *pro veritate* medical expert in eleven beatification and canonisation trials³²⁹-- clearly expressed this discomfort at the outset of his medical report on the seventh alleged miracle in the beatification process of Jean-François Régis (1712-15).³³⁰

Since physicians cannot have a certain opinion on the nature and the outcome of diseases, if they do not know both circumstances, and the causes from which they begin and symptoms with which they are affected, how is it possible to continue in order that I myself can judge with certainty the true nature of the disease and its course, since the principles slip away to a large degree? Deep is the silence among witnesses of the causes, and on the origin of the breast tumour. They all are silent on the way in which the sad woman [the person healed by the alleged miracle] was conscious of the disease, certainly, if it depends on external causes, like a bruise, or internal ones, such as the reflux of the humours from the uterus, which in pregnant women and in those which the monthly fluxes is interrupted, frequently is acquired. However this

³²⁸ Gianna Pomata, *La promessa di guarigione* (Bari: Laterza 1994), pp. 61-107.

³²⁹ The trials concern: Giacomo della Marca, Felice da Cantalice, Pope Pius V, Francisco Solano, Stanislao Kostka, Toribio de Mogrovejo, Jean-François Régis, Juan de Prado, Giacinta Marescotti, Pope Gregory X, Pierre Fourier.

³³⁰ François Régis was born in Font-Couverte France in 1597. He entered in the Jesuits order and spent his life preaching throughout the French countryside. He died in 1640. Between 1712 and 1715 took place the enquiry on his alleged miracles in Rome. He was beatified by the pope Clement XII in 1716 and canonised in 1737.

exposition of causes was the principle of the fact, because the physician cannot assign what is ignored in the fact.³³¹

The other medical experts probably shared Lancisi's complaint. In fact, the attempt to acquire as much information as possible from witnesses's depositions became a standard practice among physicians.

I am going to analyse a single alleged healing miracle in the beatification process of Jean-François Régis. In this process Lancisi was the *pro veritate* medical expert, instructed by the chief cardinal of the Congregation of Rites (*cardinal ponente*) with the task of verifying the possibility of a natural explanation to the cure. Lancisi complained of a lack of clues in four miracles in which he, along with two others, denied the recognition as miracle, because he judged them natural recoveries or curable by the art of medicine. In the end, he dismissed six miracles out of the eight proposed by the cause's postulator. Only two healing miracles were approved by Lancisi.³³² I am going to focus on one of the miracles he rejected. A close analysis of the medical investigation proceedings into a healing miracle is needed to understand the crucial role played by the medical expert, whose diagnosis of the disease could be determinant in the assessment of the miracle by the Congregation of Rites. We are going to analyse two ways of proceeding in a medical investigation: the one I will call 'standard' was the way applied by the *pro miraculo* physicians; the other I will call 'alternative' was the peculiar way applied by the *pro veritate* physician Lancisi. As we observed in the previous chapter, the *pro miraculo* medical expert was appointed by the postulator of the cause with the task of defending the miraculous nature of the recovery on medical grounds.

³³¹ 'Cum medici certum iudicium ferre non possint de natura, deque exitu morborum, nisi perspectas habeat tum occasiones, tum causas, unde coeperint, tum omnia symptomata, quibus stipati fuerint, qui fieri poterit, ut ipse ego tuto possim iudicare de vera morbi indole, eiusque fine, cum potissimum lateant principia? Altum apud testes silentium est de causis, et origine tumoris mammillae. Silent omnes, quomodo malum sibi consciverit infelix mulier, nimirum, an ex causis externis, contusione videlicet, vel casu, an ex internis, scilicet ex humorum reflexu ab utero, ut in puerperis semper, et in iis, quae mensium fluxu rite non donantur, plerumque contrahitur. Et tamen haec causarum expositio facti caput erat, quia, quod ignoratur in facto, medicus non assequitur'. 'Votum pro veritate [...] Lancisii' in *SRC [...] Francisci Regis [...] Positio super dubio* (Rome: typis Reuerendæ Camerae Apostolicæ 1712), p. 25.

³³² 'Vota pro veritate [...] Lancisii' in *SRC [...] Francisci Regis [...] Positio super dubio*, pp. 1-30.

In the Régis beatification process, the gathering of testimony on miracles was conducted mostly in France. The ante-preparatory congregation met in Rome on 12th September 1713. At this time, the *positio super miraculis*, printed in 1712, was given to each member of the Congregation.³³³ Besides the witnesses' depositions, the following documents were included: the observations (*animadversiones*) of the Promoter of the Faith Lambertini, Lancisi's *pro veritate* reports, the *pro miraculo* medical reports by Giacomo Sinibaldi, observations from the consistorial lawyer and a response to Lancisi made by the postulator of the cause, Domenico Maria Vaccari. The (significant) anomaly is that this last document was written in order to disprove Lancisi's method of inquiry.

The alleged miracle occurred in 1702 and consisted in the sudden recovery of the nun Maria Ludovica Du Rye of the convent of Moulin in France, from seven years of atrophy, aridity and inflexibility of the right-hand thumb. The disease occurred when the surgeon made an incision at the base of the nail of the infected thumb (a paronychia) to get the pus out. He accidentally cut the nerve enabling the flexibility of the limb causing a permanent immobility of the nun's finger. After the physician judged the damage irreparable, the nun was persuaded by a sister of the same convent to invoke the help of François Régis. As soon as she knelt and put a relic over the harmed finger, she was cured.³³⁴

The Promoter of the Faith Lambertini claimed a lack of *probatio*, because the witnesses were only women and the opinion of the surgeon and physician were only reported through the earwitness testimony of nuns (*de auditu*). As we have seen in the previous chapter, a lack of *probatio* could compromise the entire assessment of the alleged miracle, since they were the only facts to which physicians could refer in their evaluation. Lancisi echoed Lambertini. He dismissed the miracles on three grounds: the lightness of the disease; doubts over the continuity of the disease until its recovery; and the possibility that the cure was caused by a force of imagination. I am going to highlight the first of the three points, since this the one concerned with the disease diagnosis. Lancisi claimed that the surgeon did not accidentally cut the nerve of the thumb but that he only had injured the extensor tendon. He deduced this

³³³ See chapter 3.

³³⁴ 'Informatio. Miraculum secundum' in *Francisci Regis [...] Positio super dubio* (Rome 1712), p.30.

from two elements: the position of the wound and the symptoms of the sick nun. The paronychia is an infection located on the base of the nail of the thumb; since the cut was made above the inflated part to get the pus out, according to Lancisi, the surgeon lanced the part where the extensor tendon is located. Referring to Girolamo Fabrizi d'Acquapendente's *Opera chirurgica* (Venice 1619) and Daniel Sennert's *Medicina practica* (Wittemberg 1635), Lancisi noted that the patient did not have the symptoms which should usually appear when a nerve is sectioned--pain, convulsion, delirium and fever--which witnesses did not talk about. Since the injury was to the tendon, she would have eventually been healed through time.³³⁵ Lancisi dismissed the surgeon's diagnosis for two reasons: because he could not rely on the testimony of non-expert earwitnesses, and because the description of the symptoms provided by the eyewitnesses did not coincide with the symptoms which should have appeared, according to the diagnosis reported by the earwitness nuns.

It is interesting to highlight the use Lancisi made of testimonies. As in the inquiry into the recovery of the Ethiopian in Stanislaus Kostka's canonisation trial, discussed in the previous chapter, Lancisi was suspicious of witnesses' reliability. Eight witnesses testified to the cutting of the nerve: one was the nun herself, four were other nuns who saw the fact and the others were nuns who heard from the surgeon that he accidentally cut the nerve. As shown in the previous chapter, the evaluation of witness testimony belonged to the Promoter of the Faith and to the consistorial lawyer in the first stage of the enquiry called *probatio*. By denying the injuring of the nerve, Lancisi was exceeding his assigned role.

Lancisi's behaviour provoked the reaction of the postulator of the cause, Vaccari, who replied to each of his objections to this miracle and to the others. From the outset of his response, the postulator tried to delegitimise Lancisi's use of witnesses's depositions. He claimed that the *pro veritate* medical expert had to comply scrupulously with what was said by the witnesses as a fact and to suppose the disease and the cure happened in the way in which the witnesses accounted it. For Vaccari, the role of the physician consisted merely in commenting on the recovery of the subject based on the testimony, so his judgment was based on the words of the witnesses, not on the uncertain conjectures of the physician.

³³⁵ 'Votum pro veritate super asserto secundo miraculo' in *ibid.*, pp. 10-13.

For example, we suppose a disease and a cure in the way is exposed by the witnesses, the task of the physician consists only in making a judgment according to the principles of the art, such as if the recovery from the disease, in the way it is described by the witnesses, surpassed the forces of nature or not; only these are the duties of the physician, if he goes beyond these limits, he goes beyond the limits of his task. Furthermore, if there is a sufficient number of witnesses to certify that the existence of the disease or the recovery occurred in that way, the physician's judgment that refutes the miracle on the supposition of a non-existing disease or a recovery which did not happen in that way, is wrong, since the medical experts do not have to report to the Congregation a judgment on matters of fact but on matter of law.³³⁶

I think this passage highlights the changes that occurred in the way of making medical reports and medical enquiries in beatification and canonisation trials. It seems to me that Lancisi represents a kind of watershed in miracle assessment. He brought mechanical philosophy and the new idea of nature into judicial miracle investigations, as we will see in a more detailed way in the next chapter. Here, Lancisi is accused of exceeding his function, pushing his investigation too far, to the point of denying the reliability of the witness depositions, which is tantamount to challenging the consistorial lawyer's work and to take over his duties. Thus this episode, together with the similar one reconstructed in the previous chapter, does not just tell us about the eccentric personality of Lancisi and of the arrogance of a new method of inquiry, but also of a cultural shift in which facts entered the domain of natural philosophy. As we have seen in the previous chapter, the genre *historia anatomica* was probably the main vector.

³³⁶ 'Suppositis igitur morbo, e sanationis modo talibus, quales a testibus exponuntur, totum medici munus in eo positum est, ut iuxta artis suae principia iudicium ferat de sanatione, scilicet an talis morbi sanatio eo facta modo, quo factam illam fuisse testes referunt, naturae vires excedat vel non excedat, hae solae sunt ipsius muneris partes, si extra hos limites evagatur, muneris sui fines praetergreditur, adeo ut si ad fit sufficiens testium numerus de morbi existentia, et de eiusdem sanatione tali modo facta, erroneum erit medici iudicium, miraculum reicientis ex supposito non exsistentiae vel non sanationis talium modo factae, quia scilicet medicus a Sac. Congregatione non ahibetur ad ferendum iudicium super puncto facti, sed super puncto iuris.' Responsio facti ad vota Lancisi in Francisci Regis [...] *Responsio ad novas animadversiones* (Rome: typis Reuerendae Camerae Apostolicae 1713), pp. 1-2.

When the Congregation met for the second time (*congregatio preparatoria*) on 16th January 1714, the new *positio super miraculis* contained new observations by the Promoter of the Faith and the consistorial lawyer, as well as a *pro miraculo* medical report by Emanuel Lopez, exclusively on the above-mentioned miracle.³³⁷ Lopez's report is structured following the advice of the postulator Vaccari. Lopez's observations are presented as comments to the facts accounted in the witnesses's depositions. Lopez judged the sudden recovery a miracle of the second degree, since the disease was incurable by both the art of medicine and nature, since he believes that the nerve rather than the tendon was cut.³³⁸ An alleged miracle of the second degree was more difficult to challenge in a trial than a miracle of the third degree, since the diagnosis of an incurable disease, if accepted by the Congregation, did not need all the evidence requested by the healing miracle of the third degree. As an example, in this new *positio super miraculis*, the Promoter of the Faith contested the absence of miracles of the second degree, and asked whether in a beatification process it was enough to have only miracles of the third degree to be beatified.³³⁹ The consistorial lawyer's response consisted of a list of previous processes in which only miracles of the third degree appeared.³⁴⁰

Going back to Lopez's medical report, in its second part he directly answered Lancisi's claims of a discrepancy between the symptoms of a nerve cut and the account reported by the witnesses. He referred to Galen's (130-210) *Method of medicine (Methodus Medendi 6.3)* in which Galen clearly stated that the complete section of the nerve caused the symptoms of fever, tremors and delirium to cease, which were the exact symptoms which Lancisi claimed had to occur to diagnose a nerve cut.³⁴¹ Lopez, without exceeding the limits of his role, contradicted Lancisi's

³³⁷ I could not find anything on Emmanuel Lopez. I can only say that he signed his medical reports as collegial physician.

³³⁸ 'Ponderationes medico-sacrae et responsiones ad dubia pro veritate Emmanuelis Lopez' in *SRC [...] Francisci Regis [...] Responsio* (Rome 1713), pp. 2-9.

³³⁹ 'Novae animadversiones fidei promotoris' in *SRC [...] Francisci Regis [...] Responsio* (Rome 1713), pp. 1-4.

³⁴⁰ 'Elenchus' in *SRC [...] Francisci Regis [...] Positio super dubio* (Rome: typis Reuerendae Camerae Apostolicae 1715) pp. 1-4.

³⁴¹ 'Ponderationes medico-sacrae' in *SRC [...] Francisci Regis [...] Positio super dubio* (Rome: 1715), p.7.

diagnosis, using a still authoritative source such as Galen, who gave Lopez the chance to prove the consistency between the witnesses' description of the symptoms and the surgeon's diagnosis. Ultimately, in line with the Congregation's opinion, the Pope Clement XI did not approve the event as a miracle.³⁴²

Lopez, as a *pro miraculo* medical expert, had the task of giving as much possible medical evidence on witnesses' depositions, whereas Lancisi, as a *pro veritate* medical expert, had a more sceptical attitude. When the diagnosis of the *pro veritate* physician did not match the one made by the *pro miraculo* physician, the Congregation of Rites usually recognized the opinion of whoever was considered more reliable and unbiased, which in this case was Lancisi. However, here, the different references each doctor used to support their positions could have made the difference: the Aristotelian Fabrizi d'Acquapendente and the more modern Sennert referred to in Lancisi's report, were more authoritative in the eighteenth century than the increasingly controversial Galen cited in Lopez's report.

In early-eighteenth-century trials like the one just examined, it is possible to follow the on-going negotiations of the different tasks and methods of enquiry used by the *pro veritate* and *pro miraculo* medical experts. The way of enquiry established by Lancisi, would be followed by his pupil Francesco Soldato in numerous *pro miraculo* reports, even in antagonism with Lancisi, as we will see in the next chapter. The next section will deal with the second pillar on which the definition of a miraculous cure was based: the sudden and perfect recovery.

4.1.2 The sudden and perfect recovery

Nature heals through time, whereas miracles cure suddenly. To quote Zacchia: 'Nature works by transformation and thus over time'.³⁴³ The physician had the task of removing those obstacles which obstructed the recovery, which should happen naturally. However, these obstacles can be removed suddenly by God. As we have seen in the second chapter, instantaneity was also a feature belonging to the

³⁴² *Decretum [...]beatificationis et canonizationis [...] Francisci Regis* (Rome: typis Reu. Cam. Apostolicae 1716).

³⁴³ 'natura operatur per alterationem et idcirco in tempore' Zacchia, *QML*(Lyon 1661), p. 144 (10.cons.9.16).

work of angels and demons. This was one of the reasons that made healing miracles of the third degree inconsistent with the Thomistic definition of miracle as something surpassing the whole order of created nature. In his treatise, Lambertini, in line with Troilo Malvezzi and cardinal Brancati di Lauria, understood instantaneity in two ways: mathematical and moral (*moralis*, in the juridical sense).³⁴⁴ The former was the physically immediate instant, whilst the latter ranged from a period of three days to a maximum of ten, depending on the kind of disease and on the judge's assessment. The important element here is that the time of recovery from the disease is less than the time it would take naturally.

Since God is the author of miracles, the cure must be perfect and absolute. For perfect recovery, canon lawyers agree that the *malitia morbi*, the morbid matter, has to disappear for a quite long time. *Malitia morbi* is the cause of a disease, as the excess matter causes the loss of humoral balance. It is the precise cause of a disease, which can persist if the miracle refers to the healing of another illness--as in the case of a blind man who recovers from fever while remaining blind.³⁴⁵ Together with the cause of the disease, all consequences of a natural recovery need to disappear, such as weakness or scars in the case of wounds. On the contrary, according to some canon lawyers and physicians such as Zacchia, signs of recovery should not compromise the evaluation of the alleged miracle.³⁴⁶ The problem was, as Lambertini complained in his treatise, that postulators and *pro miraculo* physicians made excuses to dismiss any observations from the Promoter of the Faith by arguing about the perfection of the cure.³⁴⁷ For example, during the beatification process of the Franciscan Juan de Prado (1713), Lopez and Lancisi challenged the observation of the Promoter of the Faith Lambertini over the lack of a perfect cure in the first miracle. They claimed that a perfect recovery was not necessary: that is, that all the remains of the disease, which usually continued to be visible, had disappeared. For Lopez and Lancisi, it was sufficient that the disease itself and the most severe

³⁴⁴ Troilo Malvezzi, *De canonizatione sanctorum*, dub. 3, num. 34 in *Tractatus magnos* vol.14 (Bologna: Ugo Rugerio 1487) pag. 100 a tergo col. 1 in fine; Lorenzo Brancati di Lauria, 'De miraculis', in *Commentaria*, vol. 3, (Rome: Haeredum Corbelletti 1676), p. 596 (3.4.20.20.866)lib. III, tom. IV, disp. 20, art. 20, num. 866; Lambertini, *DSDB* (Bononia 1738), p 102 (4.8.17).

³⁴⁵ Andrea Spagni, *De miraculis* (Rome: typis Archangeli Casaletti ad S. Eustachium 1777) p. 248.

³⁴⁶ Zacchia, *QML* (Lyon 1661), p. 143 (10.cons.9.8).

³⁴⁷ Lambertini, *DSDB* (Bononia 1738), p. 104 (4.8.20).

symptoms vanished. The miracle was finally approved by the Congregation of Rites, and then by the pope, in a decree of 1728.³⁴⁸

Another issue that physicians had to take into account when carrying out an evaluation of a healing miracle was the presence of a ‘crisis’. This was the process following the concoction, when the morbid matter was evacuated through sweat, vomit, excrements, etc. This phenomenon was considered so relevant that every questionnaire on a supposed healing miracle contained the question: ‘Did it happen with any crisis?’. It was understood that nature had a medical power (*vis medicatrix naturae*), which visibly operated in the days during an illness which were considered ‘critical’. These fatal days were crucial for the physician who had the task to prognosticate the course of a disease. As Zacchia states: ‘Crisis is the motion of nature’ (*Crisis est naturae motus*).³⁴⁹ A crisis was a sudden switch from a previous status to another, during which nature eliminated the bad humour from the body. This moment could bring the patient back to health or straight to death. Usually it occurred in acute diseases like fevers, or all diseases that did not last long. However, as Zacchia pointed out, crisis could also happen in longlasting and chronic diseases, although here it had to follow an evident and huge evacuation or excretion.³⁵⁰

The healing power of nature worked better with thin and hot matter, which, according to humoral medicine, were the constituents of acute diseases, rather than thick and cold matter, which made up longer-lasting diseases. It consisted in the evacuation of the bad humor by augmenting the body’s natural heat. This phenomenon usually happened on ‘critical’ days. The critical days *par excellence* were the seventh, the fourteenth, the twentieth and the twenty-first. (Although with reference to the last two days, Archigene considered the twenty-first more critical whereas Hippocrates and Galen considered the twentieth to be). The other days were either less critical or not critical at all. Girolamo Fracastoro (1478-1553) affirmed the existence of critical days, but denied either the possibility of calculating them by means of mathematics, (in contrast to Pythagoras, who believed that the power of the crisis lay in the number itself), or calculating them by means of the motions of the

³⁴⁸ Lambertini, *DSDB* (Bononia 1738), p. 106 (4.8.23).

³⁴⁹ Zacchia, *QML* (Lyon 1661), p. 135 (10.cons.5.6).

³⁵⁰ Zacchia, *QML* (Lyon 1661) p. 134 (also Galen, *De diebus decretoriis*, 2.5).

planets, as astrologers did.³⁵¹ Based on these critical days, physicians prognosticated the recovery or death of the patient. When they observed the signs of concoction, which is to say the mutation in its gender due to the native heat, a crisis or some kind of solution to the disease was reasonably expected on the seventh day.

‘Perfect’ crises were those in which noxious humours were entirely evacuated after they had been concocted and secreted from the good humours. The crisis was the final natural stage of the disease, after which came recovery or death, the former referred to as a ‘good’ crisis and the latter, a ‘bad’ crisis.³⁵² Needless to say, the identification of a crisis was not always straightforward, given that when it occurred it could resemble a prodigious event. According to Niccolo’ Leoniceno’s version of Galen’s *De crisibus*:

A rapid change towards health through a rapid evacuation or a massive haemorrhage is properly referred to as crisis. A great agitation in the body of the sick man precedes these evacuations or haemorrhages. Anxiety, insomnia, insanity, coma, asthma, hallucinations, vertigo, insensibility, headache, sore throat, stomachache, and pain in many others parts, auditory hallucination, images appear vain before the eyes, involuntary tears flow, the urine is retained, the lower lip tremble, or other tremors are produced, memory loss, non-recognition of the people who are there, a great rigidity occurs, the increase coming before the usual time, great hunger and thirst follows, they scream and jump like crazy, and they cannot sit down in the same place, then suddenly sweat a lot, and follow a not small vomiting, or they empty the stomach at once, or they have a severe blood loss, or does it happen all at once, and those who see them get scared enormously.³⁵³

³⁵¹ Girolamo Fracastoro, *Homocentrica eiusdem de causis criticorum dierum per ea quae in nobis sunt*, (Venice 1538), pp. 48-56.

³⁵² Galen, *De crisibus Nicolao Leoniceno interprete*, (Lion: apud Gulielmum Rovilium 1549), p. 135 (3.1).

³⁵³ ‘Sola igitur subita ad sanitatem conversio, simpliciter crisis nominatur. Et quidemomnino fit subitis quibusdam excretionibus, aut effatu dignis abscessibus. Quaecunque enim aliter quieverint, malignis redeunt. Antecedit autem huiusmodi excretiones et abscessu non mediocris perturbatio in corporae aegrotentis. Nam et anxietates, et vigiliae, et demetiae, et graves somni, et difficiles anhelitus, et hallucinationes, vertigines, et difficiles sensus, dolores capitis, colli, et stomachi, et multorum aliorum membrorum: nonnullis vero aurium sonitus, et vanae ante oculos apparent imagines, et lacrymae involuntariae, effluent, et urina retinetur, et labrum inferius agitator, aut aliquid

Therefore, one of the most important skills a physician required was the ability to discern a natural crisis from a healing miracle. Due to the quick and sudden mutation of the patient's condition towards health caused by the crisis, people usually took it for a miracle. According to Zacchia, people judged the sick person in danger of death because of the cruelty of the symptoms, when, instead, he or she suddenly gets well. In addition, at this stage of the disease the sick person had frequent recourse to supernatural remedies, such as the invocation of a servant of God. When the disease eventually declined, they considered it a miracle, since the sufferer's health returned in a unique way and in such a short time.³⁵⁴

The presence of crisis works as a paradigm for healing miracles: if it happened, a miraculous cure had to be excluded. By way of example, I am going to focus on two of Zacchia's medical reports on alleged miracles in which the concept of crisis played a decisive role.

Starting with the 1651 Amsterdam edition of his *Quaestiones medico-legales*, Zacchia included a selection of eighty-five medical reports (*consilia*) to explain in practical terms the main arguments of the treatise. A medico-legal report was a written account of the evidence, reasoning and medical authorities on which the medical expert based his opinion. It could cover a wide range of medico-legal issues: murders, rapes, time and causes of death, personal identity, paternity, birthing, physical and mental disabilities, sexuality and miraculous cures. Of these eighty-five *consilia*, fifteen deal with alleged miracles. Eight of the fifteen belong to the canonisation of St Lorenzo Giustiniani (c.1690), two to Pope Gregory X, three to St Felice da Cantalice (c.1712), and two are anonymous.

Each consultation begins with an abstract of the clinical problem, followed by a numerical summary of the argument, which is cross-referenced in the margins. More than 250 sources are cited, from ancient medical writers such as Hippocrates,

tremulum fit: oblivio, et praesentium ignorantia, et vehemens accedit rigor, et plurimum accessio consuetam anticipat horam, et multus estus sitisque intolerabilis sequitur: clamant et salient sicuti furentes, neque possunt in eodem situ recumbere: deinde repente multus sudor erumpit, aut vomitus aliquis non paucus insequitur, aut venter subito solvitur, aut abundans fit fluxus sanguinis, aut haec omnia simul contingent, unde non parvus invadit timor inspicientes'. In Galen, *De crisisibus*, pp. 135-136 (1.2).

³⁵⁴ Zacchia, *QML* (Amsterdam 1651), p. 225 (4.8.15-16).

Aristotle, Galen and Avicenna to contemporary authors such as Jean Fernel (1497-1558), Girolamo Fracastoro (1476/78-1553), Girolamo Cardano (1501-76) and Daniel Sennert (1572-1637).

The first medical report (*consilium* I), investigates the case of a child who was affected by acute epilepsy together with a hydrocephalus (accumulation of fluid in the cavities of the brain), for numerous months. Physicians failed to cure him, so his parents made a vow to Lorenzo Giustiniani and the child immediately recovered. Zacchia begins the report by explaining the nature of epilepsy and hydrocephalus, claiming that in this particular case the former disease was the symptom of the latter. According to Galen's *Methodus medendi*, symptoms could be treated until after the disease on which they depended was cured; the symptoms did not require treatment by themselves.³⁵⁵ As a result, as soon as the boy was cured of the hydrocephalus, he was also cured of epilepsy. Since epilepsy was caused by the liquid obstructing the ventricles inside the brain (hydrocephalus), the cause of the disease was non-natural and accidental. For this reason, the disease was incurable both by nature and by art (that merely emulates nature).³⁵⁶

After proving that both maladies were acute and incurable, the rest of the report is organised around the concept of 'crisis'. According to Zacchia, there are two types, along the lines we noted above: the natural course of disease towards complete recovery (*bona crisis*) or towards death (*mala crisis*). In this case, Zacchia claimed that natural heat was too low to react to the disease with a *bona crisis*, so it was the disease that provoked the *crisis*, but of course it was of the *mala* variety. Thus, the boy should have died, but contrary to the order of nature, he recovered completely.

In the second medical report (*Consilium* LXXIX), Zacchia examines the case of the supposed resurrection of a young man, who stayed underwater for an hour and, when brought to shore four hours later, returned to life, vomiting mucus and water. From the outset, Zacchia claims that the signs of death are extremely difficult to recognise. The only clear sign is the bad smell emanating from the rotting corpse. He gives the example of a boy who, during the plague in Rome in 1656, was

³⁵⁵ Galen, *Method of Medicine*, vol. 3, (Cambridge, Massachusetts-London, England: Harvard university Press 2011) (12.1).

³⁵⁶ Zacchia, *QML* (Lyon 1661), pp.123-127 (10.cons.1).

considered dead and was thrown among the plague-ridden corpses twice; and twice he returned to life. According to Zacchia, this was not an isolated episode during the plague, because it is hard to distinguish a man not yet dead but afflicted by a disease such as apoplexy or syncope, from a real dead person. To prevent this from occurring, physicians did not usually declare a man dead until at least three days had passed. For Zacchia, the signs of death reported by witnesses are not enough: he was not moving, he was not breathing, he was cold, his eyes were dark, his face tumid and pale. These signs are equivocal and common to diseases mentioned above. The last point was the way in which the boy expelled mucous and water and apparently returned to life. Zacchia claimed that this was a *bona crisis*, nature freeing itself from the disease. When an episode of crisis was present in no way can a miracle be said to have happened. However, there is a fundamental issue: how could the boy have survived underwater for an hour without breathing? Zacchia stated that breathing had two aspects. One was visible, because of the apparent motion of the lungs and of others parts, which was called properly respiration (*respiratio*), and the other was non-visible, due to the work of the arteries and the heart, which is called transpiration (*transpiratio*). Zacchia concludes that a man can live without breathing with his lungs for hours or days, but never without transpiration.³⁵⁷

These are just two examples of how medical knowledge, including the concept of the order of nature, established norms, allowing or refusing access to the supernatural. In both cases, the concept of crisis was applied as a norm. In the former illness episode, it was used to bring forward as evidence of the lack of natural causes and support the miraculous nature of the cure; in the latter, it was used to prove the natural course of the cure.

Especially in recoveries from fevers, the possibility of a natural recovery by the means of crisis was frequently put forward in order to deny the miraculous nature of the event. Fevers were often more regarded as diseases rather than as symptoms and classified in different types. In the seventeenth and eighteenth century the followers of one branch of medicine, the iatrochemists, imagined bodily processes in terms of an alchemical laboratory, making fever a consequence of the fermentation-putrefaction of the blood. Others, the iatromechanists, treated the body in terms of mechanical laws, explaining fever as the obstructed flow of blood and blocked pores.

³⁵⁷ Zacchia, *QML* (Lyon 1661), pp. 336-338 (10.cons.79).

These distinctions caused different classification systems and confusions. Nevertheless in the end, the different authors did not advance a different therapeutic. In any case, fevers were capable of switching from a type to another in the course of an illness, causing disagreements among physicians over the explanation of the course of the illness.³⁵⁸ However, the course of a fever coincided with the standard process of concoction, which is usually followed by the evacuation of the harmful humour through a crisis.

As Jean-Michel Sallmann pointed out in his study of early modern sainthood in southern Italy, infective agents caused the most frequent diseases. From the accounts of miraculously-cured fevers, the author notes, albeit anachronistically, that typhoid fevers and malaria were the most common disease in the warm and swampy area of sixteenth century Italy.³⁵⁹

In Caterina Vigri's canonisation process, two out of the eight candidate miracles were denied by the *pro veritate* physician on the grounds that he judged them natural recoveries from fever.³⁶⁰ The fifth alleged miracle concerned the recovery from an acute and violent fever of a physician in 1655 while he was in Budrio, a village close to Bologna. The symptoms were headache, constipation, vomiting and convulsions that lasted for twenty-two days. Two days before the invocation of the servant of God he was also afflicted by dysentery, which worsened his condition. The recovery occurred after the wife of the sick man invoked Caterina Vigri. The man suddenly started feeling better and the headache and convulsions disappeared. However, the fever remained for a further two days.³⁶¹ The *pro veritate* physician, Angelo Modio, physician at the papal court from 1689, claimed that it was a case of recovery from a fever through an imperfect crisis. It was imperfect because even if the morbid matter was expelled, the recovery was not complete. The evacuation was caused by dysentery that, according to the physician, had the power to expel the harmful humour better than a simple diarrhoea. In addition, it happened

³⁵⁸ Christopher Hamlin, *More than Hot. A Short History of Fever* (Baltimore, Maryland: Johns Hopkins University Press 2014), pp. 54-87.

³⁵⁹ Sallmann, *Santi barocchi*, p. 448.

³⁶⁰ Caterina Vigri also known as Caterina da Bologna (1413-1463), was the founder of the convent of the corpus domini in Ferrara and Bologna. She was canonised in 1712 by the pope Clement XI.

³⁶¹ 'Informatio. Quintum miraculum' in *SRC [...] Catharinae a Bononia [...] Positio super dubio* (Rome: ex typographia Reuerendae Camerae Apostolicae 1680), p.141.

right in the critical days between the twentieth or twenty-first from the beginning of the disease, as according to the man's wife, he suffered of diarrhoeia one or two days before the invocation. Finally, the medical expert considered that it was not a sudden cure since it occurred two days after the invocation.³⁶²

By contrast, the *pro miraculo* physician, Paolo Manfredi, claimed that it was a healing miracle. According to Manfredi, the recovery did not happen through any crisis, either *bona*, *mala* or imperfect, since the diarrhoeia caused a worsening of the symptoms. The crucial point, according to Manfredi, was that the illness was not in its last stage but at the beginning, so it was still 'crude'. In the crude stage the concoction of the illness, which is the first stage towards recovery, has not even begun; the signs of concoction appear when the sick person begins to heal. The crucial point was the meaning given to the diarrhoeia: as a worsening of the symptoms or as a way (albeit imperfect) towards recovery? According to Manfredi, before a crisis, the signs of concoction had to appear in order to expel the harmful humours and the healed person had to feel relief. In this case, by contrast, the patient not only lost his forces after the evacuation, owing to the presence of the harmful humors, but in addition his fever persisted. Hence, Manfredi states that it was not a crisis, even an imperfect one, but a case of symptomatic evacuation. Finally, he argued that, even if the cure did not happen immediately, it was impossible for it to have occurred naturally within two days, since the patient did not have the strength to bring this about.³⁶³

As this example suggests, the course of a disease was susceptible to very different medical interpretations, even if both the explanations were accurate and well argued. The presence of an alleged crisis would frequently compromise the assessment of a cure as miraculous, so that in the end it could not be considered a miracle.³⁶⁴ Another issue, related to the problem of crisis, was that the disease should not be in its last stage, which usually preceded the moment of evacuation. At this stage of the disease, all symptoms were stronger and the patient seemed to be in life-

³⁶² 'Ponderationes medico-physicae Angeli Modii' in *SRC [...] Catharinae a Bononia [...] Positio super dubio*, pp. 360-361.

³⁶³ 'Responsio medico-physica Pauli Manfredi [...] ad opposita contra quintum miraculum' in *SRC [...] Catharinae a Bononia [...] Positio super dubio*, pp. 401-404.

³⁶⁴ *Acta canonizationis sanctorum Pii V. pont. max., Andreae Auellini, Felicis a Cantalicio, & Catharinae da Bononia* (Rome: ex typographia Vaticana in Archigymnasio Sapieniae 1720), p. 7.

threatening danger. It is in this situation that the patient frequently turned to supernatural remedies, such as the invocation of a servant of God. A crisis and a sudden mutation of his or her state, made people think that the recovery was miraculous, when it was merely a natural recovery.³⁶⁵

Another issue was medical assistance. On the one hand, the declaration of the treating doctor that all remedies he tried had been in vain, was crucial evidence in support of an alleged miraculous cure. On the other hand, it was necessary to prove whether any of the medical treatment had been inappropriate and that indeed it had not contributed to the patient's recovery. With regard to the above-mentioned seventh miracle of Jean-François Régis, Lancisi pointed out:

We, together with the promoter of the faith, would like to know which remedies were applied, not just to know if the recovery was to be ascribed to the servant of God, who was invoked by the woman, or to the medicament, which use was made by the surgeon; but also in order to understand that they were applied correctly or that something necessary was missed, hence, after knowing surgeon's expertise or negligence, I can understand that such was the disease he referred to. But the medical report cannot be completed, since the surgeon was not interviewed, and witnesses were just saying that the surgeon's effort was great but without any success.³⁶⁶

The last issue was whether a miraculous cure could admit the presence of pain. Throughout the seventeenth century theologians usually argued that the presence of pain in recoveries from disease discredited the possibility of a miracle.³⁶⁷ In religious terms, pain had different justifications. It could be seen either as the

³⁶⁵ Zacchia, *QML* (Amsterdam 1651), pp. 224 (4.1.8.6).

³⁶⁶ Nos quoque cum reverendissimo promotore libenter scire optaremus, quatenus remedia fuerint adhibita, non solum ut nosceretur, num meritis servi Dei, quem mulier invocavit, an medicamentorum vi, quibus usus est chirurgus, tribuenda esset sanatio, sed etiam ad perspicendum, fuerint ne rite admota, vel aliquid ex necessariis praetermissum, unde, cognita chirurgi industria, vel incuria, inferre possem, talem fuisse morbum, qualem ipse perhibebat. Sed impleri non possunt vota, cum chirurgus examini subiectus non fuerit, et testes verbo rem absolvant afferentes, multa conatum fuisse chirurgum, sed irritum successu. 'Votum pro veritate [...] Lancisii' in *SRC [...] Francisci Regis [...] Positio super dubio* (Rome 1712), p. 25.

³⁶⁷ Prospero Lambertini, *DSDB* (Bononia 1738), pp. 107-108, (4.8.24).

result of a sin and a punishment inflicted by God to the sinner or as a mechanism for personal growth, since it taught the person who suffers about his status in this world.³⁶⁸ It always indicated a lack of perfection. Consequently, a sudden recovery that occurred in the presence of pain could not be considered perfect, as a miracle made by God should have been, since it was sign of a lack of perfection.

The position of theologians regarding pain was beginning to change, however. This is evident in Giuliana Falconieri's beatification process, in which the Congregation of Rites, and subsequently Pope Benedict XIII (1724-30), admitted a recovery from paralysis with pain as a miracle (1729). The reason for this probably lies in Pietro Assalti's (1680-1728) reply to the Promoter of the Faith's observations over the fourth candidate miracle, collected in the *Responsio animadversiones r. fidei promoris* (1727), in which the physician Assalti explained the role of pain in recoveries from paralysis.³⁶⁹ Early modern explanations of the causes of paralysis dwelled on the physiology of senses, according to which nerves were empty tubes in which a liquid nerve flowed, responsible for carrying information to the brain. Consequently, paralysis was caused by the interruption of the flow of the nerve fluid in that part of the body. The explanation of pain in iatromechanics was linked to the nervous system. Assalti defines it as 'A molest sense of the soul, excited by the motions of the fibres of the nerves'.³⁷⁰ Accordingly, paralysis pain was caused by the obstruction of the vessels and the ensuing over distention of the part. The remedy consisted in achieving the resolution or suppuration of the obstructing material.³⁷¹ The crucial point of Assalti's reasoning was that pain was not the cause of motion by

³⁶⁸ Joanna Bourke, *The Story of Pain* (Oxford: Oxford University Press 2014), pp. 88-131.

³⁶⁹ Pietro Assalti taught medicine of *simplicia* at the university of La Sapienza in Rome from 1709. He started teaching Anatomy by 1719, theoretical medicine by 1720 and practical medicine by 1726 until he died the following year. He was a close friend of Giovanni Maria Lancisi of whose complete works he published. See 'Assalti Pietro' in Filippo Vecchiotti, Tommaso Moro (ed.) *Biblioteca picena* (Osimo: Domenicantonio Quercetti 1790), vol. I, pp. 228-232.

³⁷⁰ 'Petri Assalti responsio [...] super quarto miraculo' in *SRC [...] Julianae de Falconeriis [...] responsio ad animadversiones r. fidei promotoris*, (Rome: ex typographia Reuerendae Camerae Apostolicae 1727) [pages are not numbered].

³⁷¹ Roselyne Rey, *The History of Pain*, trans. by Louise Elliott Wallace (Cambridge, Massachusetts: Harvard University press 1998) p. 102.

which the nerves got free from stiffening, but the consequence of that freeing motion (*non motu ex dolore sed dolor ex motu consecutus*).³⁷²

Pain was not understood as the cause of something but as a symptom. As such, it appeared as a symptom in many diseases and was present in many clinical cases. What Assalti was probably arguing against here was the propensity to associate pain with crisis and also perhaps against the theme of the usefulness of pain, which was frequent in medical texts of the period.³⁷³ According to them, pain was the part of nature's healing process which physicians had to emulate. Thus pain in surgical operations was a sign that a reaction process from nature was occurring.³⁷⁴ Within this framework pain could never be present in miraculous healing, as Assalti points out in the following passage.

Regarding the rationale of Physics, I believe this: if pain can make a serious, difficult and long-lasting disease in order to cure it completely and suddenly, I certainly do not deny that the recovery of Riminaldo is due to the forces of nature. But I do not see how pain can make paralysis break after having afflicted (the patient) for so long; it (pain) certainly cannot go above divine power.³⁷⁵

Here we have yet another episode highlighting the authoritative power of medicine in the assessment of miracles, which goes as far as to challenge the theological meaning of pain.

The final crucial element that had to be taken into account in a candidate's miracle was the chance of the disease recurring. This possibility was well known to both physicians and patients. For example, if the same disease recurred for a second time and was considered a genuine relapse (*recidiva*), according to law the treating

³⁷² 'Petri Assalti responsio super quarto miraculo' in *Julianae Falconeriis [...]responsio*.

³⁷³ Rey, *History of Pain*, p. 92.

³⁷⁴ Rey, *History of Pain*, p. 92.

³⁷⁵ 'Quod ad physica rationes attinet, ego sic existimo: si dolor efficere potest, ut malum grave, difficile, atque inveteratum, temporis momento integre sanetur; non repugno quin Patri Riminaldi salus naturae viribus sit tribuenda: sed cum non videat, quomodo dolor praestare possit, ut paralysis adeo gravis temporis puncto discuteretur; profecto citra divinam virtutem depelli non potuit' in 'Petri Assalti responsio super quarto miraculo' in *Julianae Falconeriis [...]responsio*.

physician had to treat the patient without further remuneration.³⁷⁶ In miracle inquiries a relapse was the sign that the cure had not been absolute and perfect.

The different medical criteria used to distinguish a healing miracle from a natural cure, all highlight how the definition of supernatural cure depended on medical knowledge in a strict sense. Disagreement among physicians on the interpretation of the course of a disease could deny access to the supernatural status. However, if the natural was the paradigm of the supernatural, a recovery from a disease could not be declared a miracle without the invocation of the servant of God. This purely theological feature is the element to which we now turn.

4.1.3 The invocation to the servant of God

Invocation was the third but no less important pillar on which a healing miracle rested. Without invocation there was no possibility of a miracle being accepted, since it was the sign that the aspirant saint was chosen by God. Invoking the servant of God with prayers and vows meant soliciting him to intercede with God, who was the only one capable of miracles.³⁷⁷ In the miracle investigation, the invocation was necessary for three reasons. First of all, it was needed in order to identify the cause of healing, since without an invocation the healer could be a demon. In fact, demons and angels had a greater knowledge of the natural than humans, as we saw in chapter two. They could enter into the body of the sick and remove the harmful humour faster than nature could.³⁷⁸

Secondly, invocation was considered necessary in order to attribute the alleged miracle to a precise servant of God or blessed. A problem arose when the invocation was addressed to more than one servant or blessed or saint, so that it was not possible to identify the real agent of the miracle. And thirdly, invocation had to

³⁷⁶ Pomata, *La promessa di guarigione*, pp. 60-107.

³⁷⁷ For a general overview on healing rituals see Peter Burke, 'Rituals of healing in Early Modern Italy' in *The Historical Anthropology of Early Modern Italy: Essays on Perception and Communication* ed. by P. Burke (Cambridge University Press 1987) pp. 207-220; For an overview on the different types of invocation: Duffin, *Medical Miracles*, pp.145-181.

³⁷⁸ Agostino Matteucci, *Practica thologica-canonica* (Venice: apud Nicolaum pezzana) pp. 166-7 (3.2.6).

be proven: one or more witnesses had to testify that the patient or another person in his or her name had made a vow to a specific servant of God. For example, in the 1712 *Positio super miraculis* regarding the cause of Jean-François Régis, the Promoter of the Faith Lambertini raised some doubts on the possibility of assigning the miracle to the servant of God. Lambertini claimed that the nun of the monastery of Moulin was cured suddenly after she took the Eucharist, not after she invoked Jean-François Régis.³⁷⁹

By means of the nun's testimony, we can follow the various steps towards recovery stated first hand. She was suffering from a long-lasting paralysis of the inferior part of the body, she could not move from the bed for two years and for last three month, she further suffered from a ear disorder (eardrum hydrops). When all the hopes of a natural recovery had been abandoned and the physicians judged the disease incurable, the nun of the convent asked the intercession of the Blessed Virgin Mary and François de Sales, founder of the order of the nuns, but in vain. The year before the cure she had read the life and miracles performed by the servant of god Jean-François Régis, and had remained so impressed that she decided to ask for his help. Therefore, the mother of the convent with the other sisters began a novena, consisting of nine days of praying to ask the intercession of the servant of God. During the novena, the disease increased instead of decreasing. Nevertheless, the nun did not lose her hope. In the first day of the novena (13th of November), she heard a clear and distinct voice which said 'you will be healed' (*tu sanaberis*). She opened her eyes and looked at the image of Régis, in front of her at the foot of her bed. She thought it was just the fruit of her imagination. Nonetheless, she became filled with a strange joy. During the novena her health got worse but she still did not lose her faith. On the 21st of November, she felt the strong desire to take the sacrament of Eucharist. Thus on the following day, the last of the novena, she was brought to the choir of the church sitting in an obstetrician's chair. At the moment of Eucharist, she was brought in front of the priest kneeling. As soon as she took the Eucharist she felt a divine vigour in the whole of her body and an amenus cold sliding from the brain to the inferior part of her body. Without any help she stood up completely healed, she walked to the centre of the choir and she started singing a *te Deum*. The voice of

³⁷⁹ 'novae animadversiones' in *Francisci Regis [...] Responsio ad novas animadversiones* (Rome 1713), p. 3.

the healing miracle suddenly spread out of the convent throughout the village of Moulin.³⁸⁰

Promoter of the Faith Lambertini promptly raised a question: who cured the nun? The Eucharist or the intercession of the servant of God?³⁸¹ This was explained in the second *positio super miraculis* (1713) by the postulator of the cause, who attached a well argued answer that I am going to summarise, since it gives the measure of how relevant theology was to healing miracles, alongside medicine.

After having pointed out that to invoke the Eucharist meant to invoke Christ, the postulator tackles the issue of the role played by the servants of God, blessed or saints in working miracles. They act as mediators between God, who is the only one who can perform miracles and the invoking person. But what is the role of Christ? Do saints usurp his function? According to the postulator, the nun invoked the servant of God so that he would intercede with Christ, the ‘immediate mediator’ (*immediatus mediator*) to God, whereas the servant of God is the ‘mediate mediator’ (*mediatus mediator*). In this case the invocation was addressed towards the Eucharist that does not have the necessary healing power. The healing power belongs to Christ who dwells into the Eucharist. Hence the nun needed to pray the servant of God, who had to pray Christ to redirect his healing power towards the person who received the sacrament. For this reason we need to pray to a servant of God as mediator.

When we invoke Christ, we do not nullify the intercession of the saints, as the promoter of the faith claims, as when invoking the saints, we do not derogate the merit of Christ, as the Calvinists would like, because we invoke Christ and the saints according to a different consideration, the former to address his favours towards us, the latter in order that with his prayers the merits of Christ were applied upon us.³⁸²

³⁸⁰ ‘Summarium super miraculum primum’ in *Francisci Regis [...] Responsio ad novas animadversiones*, pp. 17-22.

³⁸¹ ‘novae animadversiones’ in *Francisci Regis [...] Responsio ad novas animadversiones* (Rome 1713), p. 3.

³⁸² ‘Quando igitur invocamus Christum, nihil derogatur sanctorum intercessioni, ut vult reverendissimus fidei promotor, sicut quando invocamus sanctos, nihil Christi meritis derogatur, ut volunt Calvinistae, quia Christum et sanctos sub diverso respectu invocamus, illum quidem, quo ille volunt Calvinistae, quia Christum et sanctos sub diverso respectu invocamus, illum quidem, quo ille sua nobis merita applicet, hos vero, quo suis efficiant precibus, ut nobis Christi merita applicentur.’ in

With this clear organisation of the roles in the working of a miracle, the postulator points out the risks of the Promoter of the Faith's observation, when he claims that by invoking Christ, the role of the servant of God is diminished. At the same time, he gives a valid response to the Calvinists' accusations, that the Catholic worship of saints is superstitious, since the role of Christ would be put aside, and concluding that 'you must be careful not to give weapons to heretics'.³⁸³

In this sub-section of the chapter we have seen how theological issues were as relevant in miracle inquiries as medical issues were. Moreover, the assessment of a supernatural healer was as relevant as the exclusion of natural healing. In the chapter as a whole, we have thus far examined the definition of healing miracles of the third degree in detail. I have shown the three crucial elements which made up this degree of miracle, both in medical and in theological terms: i) the presence of a severe disease, which made the diagnosis an important operation in the enquiry; ii) the absence of any natural healing elements, such as crisis, which also made the recognition of the signs of the course of the illness important; and iii) the invocation to the servant of God, which must be proved and specific. The link between this degree of miracle healing and medicine was straightforward, since the definition of the latter relied on the efficacy of the former. For example, a disease could cease to be difficult to cure and become curable after the discovery of a treatment. The direct link between medical theories and healing miracles reflected, in a minor way, the link between the natural and the supernatural. As soon as the boundaries of the natural began to change, so too did those of the supernatural. In the next and final section of this chapter, I am going to present a case study in which the natural boundaries are reconstructed by mechanical philosophy.

4.2 Case study: The inquiry on miraculous childbirths

In the same way that in healing miracles the paradigm was the natural recovery, in miraculous childbirths it was the natural childbirth. However, there was

'Responsio ad novas animadversiones r. fidei promotoris', in *Francisci Regis [...] Responsio ad novas animadversiones*, p. 8.

³⁸³ *Francisci Regis [...] Responsio ad novas animadversiones*, p. 10.

one difference: childbirth was not considered as regular as the course of a disease.³⁸⁴ One of the ancient definitions of nature included what most frequently happened (*natura est ut plurimum et secundum plurimum*),³⁸⁵ hence, all children's births that occurred in an extraordinary way were considered preternatural or potentially supernatural. In this case, the category of the preternatural was not used to indicate the works of spiritual creatures, such as demons and angels, but a deviation from the norm. In the seventeenth century, children's births were basically divided into natural or legitimate and non-natural or illegitimate.³⁸⁶ According to Zacchia, a natural childbirth had five features: a pregnancy of nine to ten months; a cephalic presentation of the foetus (head toward the exit and arms along the sides); absence of severe acute pain; a labour of twenty-four hours; and the absence of any mistakes by the midwives.³⁸⁷

Whereas there was no problem in the recognition of what should be identified as the natural position of the foetus inside the uterus, based on foetuses's most frequent position, there were difficulties in the identification of what should be considered the natural length of pregnancy.³⁸⁸ Sennert reported that it could vary from five to twelve months.³⁸⁹ A lack of identification of a precise term in human pregnancy, contradicted the idea of a nature prone towards perfection. Consequently, ancient and early modern physicians exerted their utmost skill to identify how long women were pregnant for and why it varied so much in humans but not in animals. Zacchia argued that the time of pregnancy could vary geographically. According to his theory, Hispanic people, for instance, usually gave birth on the ninth month

³⁸⁴ For a general overview on the history of childbirth in the west: Nadia Maria Filippini, *Generare, partorire, nascere. Una storia dall'antichità alla provetta* (Rome: Viella 2017); René Frydman and Myriam Szejer (eds), *La naissance en Occident; La Naissance: Histoire, Cultures, Pratiques d'Aujourd'hui* (Paris: Albin Michel 2010); Katharine Park, *Secret of women. Gender, Generation and the Origin of Human Dissection* (New York: Zone Books 2006). For a history of midwifery in early modern Europe see: Hilary Mariland (ed.) *The Art of Midwifery: Early Modern Midwives in Europe* (London-New York: Routledge 1993).

³⁸⁵ Zacchia, *QML* (Amsterdam 1651), p.32 (1.2.1.59).

³⁸⁶ Daniel Sennert, *Practicae Medicinae liber quartus*, (Lyon: sumpt. Petri Ravaud 1633), pp. 477-493 (4.2.6). See also Filippini, *Generare, partorire, nascere*, pp. 105-110.

³⁸⁷ Zacchia, *QML* (Lyon, 1661), p. 259 (10.cons.55).

³⁸⁸ Filippini, *Generare, partorire, nascere*, pp. 87-94.

³⁸⁹ Sennert, *Practicae Medicinae*, pp. 482-494 (4.2.6.1)

because their temperament was hot. By contrast, people from Northern Europe, who had a cold temperament, usually gave birth on the tenth month.³⁹⁰ Alternatively, Sennert stated that human beings did not have a precise time of pregnancy, because unlike animals, they suffered from many diseases, and because it was believed that the foetus suffered in the same way, birth was delayed.³⁹¹

The natural order was the paradigm by which the supernatural was identified, thus, the recognition of the features which corresponded to a natural childbirth were extremely important. However, in the case of miraculous childbirth there was another tangle to unravel: non-natural childbirths. Non-natural childbirths were all those that deviated from the natural features listed above and were considered preternatural. They included all those cases of pregnancy where the life of the mother and the child was in danger, when for example a foetus was lying in the wrong position in the uterus. Since supernatural childbirth was identified by excluding any natural features, it seems that it also had to satisfy the paradigm of the preternatural.³⁹²

Not all the treatises on miracles dealt with miraculous childbirths. For example, Zacchia did not mention them in his treatise although he did mention them in his ninth and tenth *consilium*.³⁹³ Bordoni only mentioned miraculous childbirth in a few lines in a chapter on childbirth in infertile women³⁹⁴. On the contrary, Matteucci and especially Lambertini dwelt on the topic more carefully.³⁹⁵ Both identified the premises for a miraculous childbirth in giving birth to a foetus located transversely to the natural position, with a leg or an arm out of the womb. According to Lambertini, there were six factors which had to occur for a miraculous birth: a long stay of the foetus in the uterus; the death of the foetus; the weakness of the mother caused by a disease; the sudden release of the foetus after the vow; absence

³⁹⁰ Zacchia, *QML* (Amsterdam 1651), p. 30 (1.2.1.33).

³⁹¹ Sennert, *Practicae Medicinae*, p. 489.

³⁹² See Filippini, *Generare, partorire, nascere*, pp. 105-110.

³⁹³ Zacchia, *QML*, (Lyon 1661), pp.141-147 (10.cons. 9-10).

³⁹⁴ Francesco Bordoni, *Opus posthumum*, (Parma: Typis Pauli Monti 1703), p. 180.

³⁹⁵ Matteucci, *Practica theologico-canonica*, pp. 180-183; Lambertini, *DSDB* (Bononia 1738), pp. 264-286 (4.20).

of pain; and the complete recovery of the woman.³⁹⁶ This was a complex set of factors, which could make the inquiry on miraculous childbirth controversial.

Following this general introduction, let us now look in detail at the case of an alleged miraculous childbirth included in the canonisation process of Pope Gregory X. Alessandra Spadari, a noblewoman from Arezzo, went into labour on 5th March 1625. When the two midwives who attended the childbirth put the woman on the obstetric chair, they realised that the foetus was in a preternatural position, since an arm was out from the womb, proving that the foetus was stuck inside it. The physician who attended the childbirth ordered the midwives to lift the woman from her legs to help the foetus regain a natural position. However, every attempt was in vain and the foetus died in the morning. The curate, who was Alessandra's brother, left his sister's room to pray and made a vow to Gregory X. As soon as he completed this action his sister gave birth to the dead child, late in the evening of the same day.³⁹⁷

In 1625, the beatification process of Gregory X had already started, hence, the witnesses were heard close to the event the year after. In the first half of the seventeenth century, the practice of requiring medical experts for the evaluation of miracles was still rare.³⁹⁸ Yet, the promoters of the cause required the judgment of two physicians on this occasion, Bernardo de Bernardis and Emilio Vezzosi,³⁹⁹ anticipating the request of the Rota's auditors who asked for three more physicians: Angelo Vittorio⁴⁰⁰, Aurelio Marocchi and Paolo Zacchia. The distinction between *pro miraculo* and *pro veritate* physicians had not yet been applied. All of them judged the childbirth of Alessandra Spadari miraculous. However, I will only analyse Zacchia's medical report, the most thoroughly argued of the five.

Zacchia treated the case as a recovery from a disease. Consequently, he applied the criteria used to judge miraculous cures. Firstly, he examined it from the

³⁹⁶ Lambertini, *DSDB* (Bononia 1738) p. 282.

³⁹⁷ 'Informatio' in *SRC [...] Gregorii papae X positio super dubio*, (Rome: typis Reu. Camerae Aposolicae, 1718).

³⁹⁸ See chapter 3.

³⁹⁹ Emilio Vezzosi (1565-1637) author of a treatise on childbirth entitled *Gynaecyeseos, sive De mulierum conceptu, gestatione, ac partu*, (Venice 1598).

⁴⁰⁰ Angelo Vittorio (d. 1640?) author of *Medica disputatio. De palpitatione cordis [...] B.Philippi Neri*, (Rome 1613) and *Medicae consultationes*, (Rome 1640).

point of view of a disease, which had to be serious and in its early stages. In this case, once dead in the uterus, the foetus began to putrefy and endangered the mother's life. Secondly, Zacchia surveyed the case to assess recovery, which meant verifying that no artificial remedy had been used to reintroduce the arm of the foetus and to replace the child in its natural position. Finally, he ascertained whether the recovery occurred close to the invocation to the servant of God and whether it involved a complete return to health.⁴⁰¹

The auditors of the Rota examined the medical reports in 1629 and approved the miraculous childbirth, although the process was still at its beginning. The Congregation of Rites, after a period of inactivity, took up the case again in 1645.⁴⁰² Now it was the turn of the cardinals of the Congregation of Rites to claim that there was insufficient evidence available to judge that the intervention of the midwife did not put the foetus back in natural position. Therefore, they asked for a new medical report, which was again written by Zacchia. He reviewed the case carefully without changing his standpoint. Referring to Hippocrates' *De morbis mulieribus*, Zacchia claimed that the expert hands of the midwife were unable to replace the foetus in its natural position because it was already dead.⁴⁰³

Pope Gregory X was beatified in 1713, but it was an 'equipollent' beatification, meaning that the Congregation of Rites recognised the local cult of the servant of God, since the continuity of cult for at least one hundred years was proved.⁴⁰⁴ Since a new miracle occurred in 1710, there was ground to open the canonisation process, which followed the declaration of beatification, as there were at least two more miracles to be judged. The printed *positio super miraculis*, which I am now going to analyse, bears the date 1717. At this time the Promoter of the Faith was Lambertini, the *pro miraculo* physician Francesco Soldato, a pupil of Lancisi's, who was the *pro veritate* physician. By now, almost a century had passed since the first set of medical reports were written in 1626.

In terms of Lambertini, I will here consider only his observations and mechanical explications, crucial for the demonstration of the miracle. Lambertini

⁴⁰¹ Zacchia, *QML* (Lyon 1661), pp. 141-145 (10.cons.9).

⁴⁰² Ditchfield, 'How not to be a counter reformation saint', pp. 407-410.

⁴⁰³ Zacchia, *QML* (Lyon 1661), pp. 145-147 (10.cons.10).

⁴⁰⁴ See chapter 3.

took over the objection of the Congregation of Rites, claiming that there was no evidence that the foetus did not return to the natural position.⁴⁰⁵ Furthermore, the first stage of the inquiry (*probatio*) was affected by a shortage of testimony. As already shown in our case study in chapter three, this might have affected the entire truthfulness of the inquiry, since it was merely based on the witnesses' depositions. Hence, physicians made up for the lack of data by means of mechanical explanations.

Soldato claimed that neither by means of art nor by means of nature could the foetus's arm have been repositioned to its natural site. He uses a mechanical explanation by the means of two drawings, one representing the obstruction of the foetus in the orifice of the uterus and the other the obstruction in the cavity itself. In the former (fig. 2) it is drawn a table DE in which is inserted a nail ABC. AB represents the inner part of the foetus inside the uterus, BC the outer part. B represents the orifice of the uterus. In line with mechanics, Soldati claims that it is easier to pull out the nail by shaking sideways the longer part FG, instead of shaking the smaller one HI. Consequently, the arm of the foetus would enter better, thanks to the movement of the mother's body (i.e. the muscles of the uterus), rather than through the hands of the midwife who could only work the outer part of the foetus (i.e. its arm). The explanation, continues Soldato, is given by the nature of the lever. Mechanics stated that the longer the part of the bar used to lift up a weight, the less is the power needed in the lift. Considering that the force applied by the mother on the inner part of the foetus was not enough to bring him in the natural position, it was impossible that a force even stronger could have been applied on the outer part by the midwife, and successfully had replaced the foetus in his natural situ. Soldati concludes that if it was impossible to lift a weight with the longer part of the lever, how can one imagine lifting it with the shorter part?⁴⁰⁶ In the case that the impediment was in the cavity of the uterus, Soldati stated that there were two premises to put forward: the similitudes and the differences between a goatskin (*uter*) used to carry wine and the uterus. To explain how it works in practice, through their similarities: firstly, they both swell when you entered a foreign material in them, the uterus due to the foetus the goatskin due to wine; secondly, they both flag

⁴⁰⁵ 'Animadversiones fidei promotoris' in *Gregorii papae X Positio super dubio*, (Rome 1718), pp. 5-6.

⁴⁰⁶ 'Votum Francisci Soldati' in *Gregorii X positio super dubio* (Rome 1718), p. 25.

and flatten when the foetus or the wine were released. Concerning differences, the goatskin never loses its internal measurement and surface, so that the same quantity, which has been introduced, can also be issued. The uterus cannot preserve the same internal surface and magnitude, and thus would gradually decrease as soon as the parts of the foetus is delivered, so that no other foetus can be reintroduced without expanding the internal cavity.

At this point of the discussion, Soldato refers to a second image in which a nail BCD has been inserted in a table through the hole C toward D (fig. 3). Due to the presence of a body EF, which nullify the space between A and itself, it is impossible to reintroduce the external part of the nail CD. Consequently, due to the obstruction of the uterus, the midwife could not have reintroduced the arm of the foetus. Regarding the opportunity of returning the arm to the uterus by means of natural force, Soldato claimed this could only be achieved through the movement of the foetus and the uterus simultaneously. When the former was dead, the latter function was to pull out what was inside like the urinary bladder. Therefore, there were only two ways the foetus could be released: if is the foetus was expelled in the position as testified by the witnesses and was thus considered miraculous; or, if the foetus was returned to the natural position and then delivered, this would also be considered as miraculous.⁴⁰⁷

Whereas Soldato strictly applied mechanical theories to supply the lack of testimony, Lancisi, along the same lines as his pupil, referred to medicine, discussing the anatomical similarity between the uterus and the urinary bladder. Lancisi states that both are made of two antagonistic muscles, which work in opposition to each other, one expanding and the other contracting. This is shown by one positioned at the bottom of the uterus, and the other one covering its sides. If a stone gets stuck in the bladder neck, the more one pushes to release it the more the neck will tighten, which will prevent the expulsion of the stone and consequently causing the patient great pain. Equally, when the foetus got stuck in the uterus with an arm or a leg dangling outside, due to the irritation of the orifice of the uterus and to the force of the lateral muscles, it would be impossible to insert any fingers to move the foetus back in a natural position.⁴⁰⁸

⁴⁰⁷ 'Votum Francisci Soldati' in *Gregorii X positio super dubio* (Rome 1718), p. 26

⁴⁰⁸ 'Animadversiones pro veritate' in *Gregorii X positio super dubio* , p. 31.

In 1719, the Congregation of Rites met together for the second time and requested a new examination; a *positio super miraculis* was printed in the same year, but nothing new was added in terms of medical knowledge or method of analysis.⁴⁰⁹ Up to this point, the Congregation of Rites had not met to judge Alessandra Spadari's childbirth. Although we still do not know whether Spadari's childbirth would be judged a miracle or not, the interpretative potential of mechanics is evident in a context in which the main purpose is to distinguish the natural from the supernatural. Soldato's entire judgement is made on the assumption that *artificialia* are the same as *naturalia*. This equation gave Soldati the right of trace natural/mechanical boundaries beyond which the supernatural potentially dwells. The functions of the uterus were explained using the example of a nail and a wooden tablet. If previously the boundaries of the natural had previously been much more blurred, through mechanical explanation they became visible. This is very clear when comparing Zacchia's expertise with the one made a century after by Soldati. Zacchia make reference to mechanics, which was then still a new discipline,⁴¹⁰ but treated the case as one of miraculous healing instead.

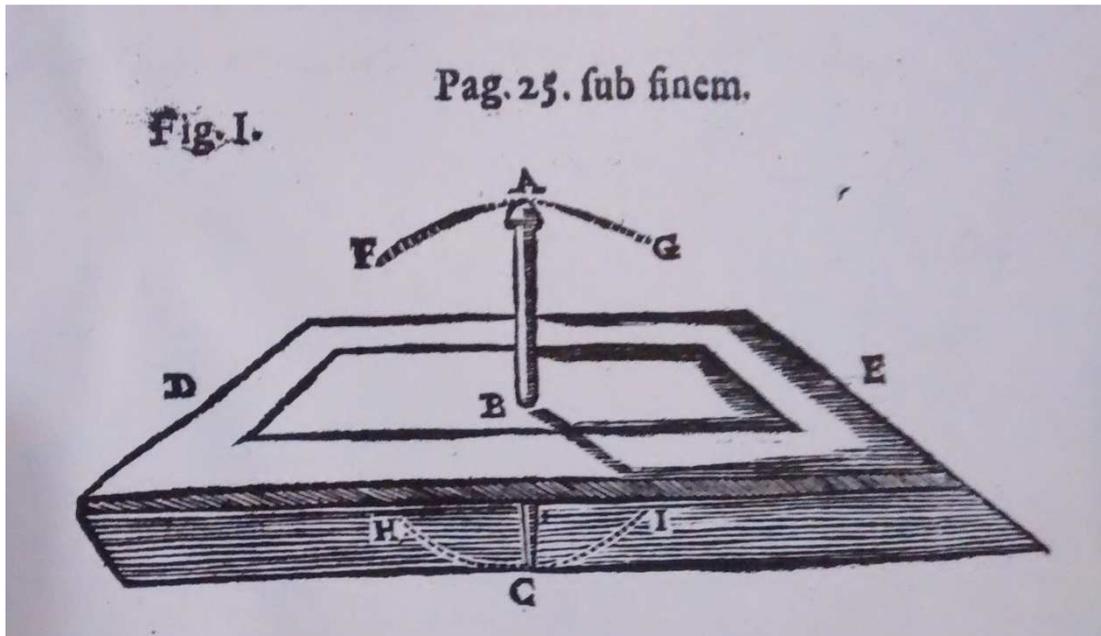


Fig.2 Table with nail (1), in SRC [...] Gregorii papae X *positio super dubio* (Rome: typis Rev. Camerae Apostolicae 1718).

⁴⁰⁹ SRC [...] Gregorii papae X *Positio super miraculi*, (Rome: typis Reu. Camerae Apostolicae, 1719).

⁴¹⁰ See chapter 5.

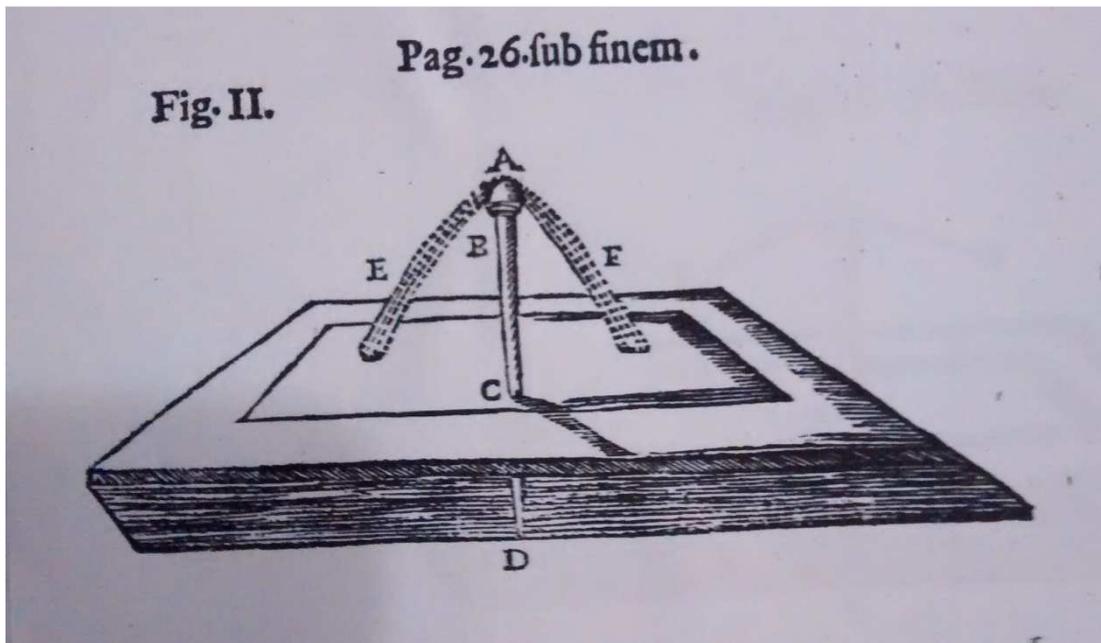


Fig.3 Table with nail (2), in SRC [...] Gregorii papae X positio super dubio (Rome: typis Rev. Camerae Apostolicae 1718).

4.3 Conclusion

In the first section of this chapter we learned, first of all, that nature was used as a paradigm to identify the supernatural. Secondly, we identified and discussed the necessary criteria to identify a healing miracle of the third degree. Thirdly, we saw how natural philosophy, and specially medicine, worked to identify whether a cure surpassed the boundaries of the natural. And, fourthly, we understood what it meant to surpass the forces of nature according to the way it happens (*quoad modum*), which is the specificity of miracles of the third degree, also described as ‘beyond nature’ (*praeter naturam*).

In the second section, our case study, we analysed a specific miracle of the third degree: a miraculous childbirth. We clearly saw that the boundaries of the natural detected by medical experts corresponded to the boundaries of the natural as identified by mechanical philosophy. Therefore, as a miracle of the third degree had to surpass the forces of nature according to the way it happened, these forces no longer matched the whole of created nature but the boundaries of mechanical nature.

As Lambertini realised, these boundaries no longer included the agency of invisible and spiritual nature. The birth of the new idea of nature caused the blurring of the older created nature made of the visible and corporeal nature plus the invisible and incorporeal. For these reasons, Lambertini proposed a new classification of miracles, which had to include minor miracles, those exceeding only visible and corporeal nature. As the idea of nature changed, so did that of the supernatural, since the former was the paradigm for the latter. Indeed the agency of angels was included in the supernatural realm, which meant that the preternatural was subsumed into the supernatural, because the boundaries between the supernatural and the preternatural were no longer visible.

In the next and final chapter, I will deal with miracles of the second degree: miracles that exceeded the forces of angels (*miracula maiora*) and which Lambertini and other canon lawyers considered miracles par excellence. As happened in the case of miracles of the third degree, the new boundaries of nature changed one peculiar feature of this kind of miracle, remarked on by almost all the previous canon lawyers but denied by Lambertini: their opposition to the order of nature.

Chapter 5

Resurrections

Prologue

In May 1617, a terrible fire broke out in Padua. It developed in a tower where a large quantity of gunpowder was stored. The tremendous explosion was heard as far as thirty thousand feet away, all the way to Vicenza and Treviso. Windows shook and broke, tiles and entire chimneys fell from roofs, houses collapsed. People began to wonder what was going on: was it an earthquake? Was the city under siege? The sky darkened and along the streets you could hear the screams of those trapped under the rubble. From blacksmiths and carpenters to doctors, all rushed to bring aid: sawing beams, carrying away stones and rescuing the injured. The shoemaker Bernardino learnt that the roof of his house had collapsed, and immediately he ran home to check on his two sons. He found the cradle of the younger one not completely submerged by the rubble and alive; but a large beam had fallen on his older son's bed. He was five years old, he was bruised and not moving or speaking. Meanwhile, a woman was rushing home as soon as she heard that her house had collapsed. When they pulled her three-year-old daughter out of the rubble, she appeared dead. Both desperate parents brought their children to the altar of the church of St Anthony of Padua. As soon as they invoked the saint, the two children came back to life, much to the wonder of those present.

The fact was so much talked about throughout the city that the bishop and the inquisitor summoned the two children's relatives and the witnesses of the alleged miracle. In addition they convoked physicians, theologians, philosophers and jurists for their expertise. The physicians focused mainly on the signs of death: some argued for apparent death caused by apoplexy, others argued for syncope, others still for suffocation, which could have caused both. The theologians also had differing opinions: some argued that it could not be a miracle, since the sainthood of St Anthony and the faith of the faithful needed no additional evidence. Furthermore, the recovery of the two children was not perfect, since they felt pain after it occurred, and one of them was bleeding. Others, on the contrary, argued that it was a miracle,

since pain and bleeding were just the sign of the weight of the bar over them; the recovery happened suddenly when they were brought to the altar of the saint not a moment before or after, thus recovery was perfect. The philosophers similarly differed. Firstly, about how much a human being could live without respiration; secondly, if resurrection could happen in nature. Relying on Aristotle's theory of the function of respiration against medical theories that a man could live without breathing for hours, they answered in the negative to the first issue and denied the possibility of a natural return to life, on the ground of Aristotle's *Metaphysics a privatione ad habitum non datur regressus* (from privation to habit there is no return). Finally, canon lawyers agreed that the extreme conditions necessary to judge it a miracle were not present. They argued that: firstly, the kind of impact the children would succumb to is not known; secondly, the quality of the material that buried the children was unknown; and, finally, that there no experts observed if the children's artery was pulsing or not or checked their breathing. The bishop collected the witness testimony and the experts' reports and sent them to Rome, since only the pope could declare such an event miraculous.⁴¹¹

It is difficult to ascertain how reliable Giorgio Raguseo's (1580-1622) account of the events is.⁴¹² What I can confirm is that each of the points argued by the expert theologians, physicians and philosophers was at the centre of discussion of every supposed resurrection case for over a century. Unlike alleged healing miracles, in the case of resurrection, only one piece of evidence was needed: the death of the revenant. Since resurrection was undoubtedly a miraculous event for Catholics, the only proof needed was the evidence of previous death. The certainty of death gave rise to numerous issues, such as the problem of apparent deaths caused by apoplexy or syncope and the resulting identification of signs through which a state of death could be recognised. The problem of respiration in the case of drowning was the source of a long debate throughout the seventeenth and eighteenth centuries. The major change in the course of the seventeenth century was that natural philosophers no longer relied on Aristotle, turning to mechanical and corpuscular philosophy instead.

⁴¹¹ In the appendix of: Giorgio Raguseo, *Epistolarum mathematicarum seu de divinatione*, (Paris: Nicolai Buon 1623), pp. 600-43.

⁴¹² He was an Italian philosopher, theologian and orator from the Republic of Venice.

In the following discussion I shall present examples of arguments raised within the inquiry of miracles. The first section of the chapter will set the context, analysing the particular context of Italian mechanicism and corpuscularism between the end of the seventeenth and the beginning of eighteenth century. The second section will deal with the investigation of two cases of resurrection in beatification and canonisation trials. Here I want to make two claims. First of all, that the new idea of nature was widely applied in miracle inquiries by medical experts. And, secondly, that canonisation trials were a site in which new ideas were applied and debated: a place where new ideas could be challenged rather than a reactionary one, closed and stuffy. In the third and final section, we shall return to theology, seeing how the application of the new idea of nature, and Lambertini's apologetic purpose, also shaped the concept of miracles of the second degree. Resurrection was considered the miracle *par excellence* by almost all canon lawyers: impossible in nature and clearly contrary to the course of nature. Lambertini, in line with some mechanical philosophers, did not accept any breach of natural laws.

5.1 Mechanicism in late seventeenth- and early eighteenth-century Rome

Let me begin by saying that I prefer to use the term Mechanicism to refer to the particularity of Italian natural philosophy rather than Mechanical philosophies, since it was characterised by the absence of a specific system of thought. Whereas in Northern Europe physicians tried to process a new metaphysics on which to base their experimental work, in Italy innovators never openly discussed the inner reasons of their method. Furthermore, in Italy there was never a precise alliance to a certain mechanical philosopher, with innovators simply utilising what they believed suitable for their research--whether Isaac Newton (1643-1727), René Descartes (1596-1650), or both. As historian Ugo Baldini has shown, Galileianism (which includes the followers of Galileo) did not correspond to a uniform thought in Italy, but to a similar way of investigating nature. Their only points in common were their refusal of Aristotelianism in natural philosophy and their method of inquiry.⁴¹³

⁴¹³ Ugo Baldini, 'La scuola galileiana' in *Storia d'Italia. Scienza e tecnica* (Turin: Einaudi 1980) pp. 383-463.

The reason why a system of thought did not develop in Italy is twofold. On the one hand, there was a dissimulating attitude among innovators in order to prevent the risk of an inquisitorial trial, in case they treated specific ontological issues, such as the composition of matter. On the other hand, mostly among Jesuits, there was such a respect for the authority of the Church on specific issues involving metaphysics, considered indisputable, that it caused a lack of debate.⁴¹⁴

Mechanics went through many changes between the end of sixteenth and the beginning of eighteenth centuries. Its domain of knowledge had previously belonged to disciplines such as astronomy, optics and music. However, after the fall of Aristotelian cosmology, it acquired new areas of inquiry: celestial motion and the settlement of the Copernican structure of the universe, the resistance of materials, the motion of water and the collision of bodies. During the seventeenth century, mechanics became part of university curricula, though it was still based on Aristotle's *Physica* and *De caelo*.

The rise of mechanics was the result of a number of factors. The most prominent was both the social and intellectual change in the relationship between art and nature. Within Aristotelianism, art was always considered subordinated to nature. Aristotle relegated art to a simple imitation of nature and consequently, ancient mechanics (which was the knowledge related to any kind of handcraft), was subordinated to philosophy (which involved abstract explanations). Due to the changing status of engineering and the rediscovery of mathematics between the fifteenth and sixteenth centuries, which in research terms implied avoiding qualities and focusing exclusively on the efficient cause, mechanics gained much more esteem among natural philosophers. The changing status of mechanics corresponded to the blurring of the boundaries between art and nature, between things crafted by hand (*artificialia*) and things produced by nature (*naturalia*).⁴¹⁵ Just to give a few examples. In the *The Advancement of Learning*, Francis Bacon (1561-1626) writes: 'the artificial does not differ from the natural in form or essence but only in

⁴¹⁴ Ugo Baldini, 'L'attività scientifica nel primo Settecento' in *Storia d'Italia. Scienza e tecnica* (Turin: Einaudi 1980), pp. 513-26.

⁴¹⁵ On the cultural switch of the relationship between art and nature see: Paolo Rossi, *I filosofi e le macchine 1400-1700* (Milan: Feltrinelli 1962); Paolo Aldo Rossi, *Metamorfosi dell'idea di natura e rivoluzione scientifica* (Genova: Erga edizioni 1999); Pamela H. Smith. *The Body of the Artisan: Art and Experience in the Scientific Revolution*. (Chicago: University of Chicago Press, 2004).

efficient'.⁴¹⁶ Descartes (1596-1650), at the end of part four of the *Principle of Philosophies*, explains that he does not 'recognise any difference between artefacts and natural bodies except that the operations of artefacts are for the most part performed by mechanisms large enough to be easily perceivable by senses.'⁴¹⁷ Pierre Gassendi (1592-1655), in his *Syntagma philosophicum*, says that 'on natural things, we investigate in the same way as we investigate on things in which ourselves are the authors'.⁴¹⁸

Mechanics was constantly expanding as a method of investigation. This was in line with academic claims that nature could be investigated using artificial instruments, because man and nature responded to the same laws. In the seventeenth century mechanics changed the way people perceived nature. Objects, as historian Domenico Bertoloni Meli pointed out, appeared in treatises of natural philosophy.⁴¹⁹ The lever, the pulley, the balance and many others, were applied in experiments to explain the laws of nature.

The account of some facts, which occurred between the end of seventeenth and the early eighteenth centuries, helps to understand the particular nature of the cultural environment in the Italian peninsula. In Naples, between 1688 and 1697, a trial against four academics accused of teaching atheism through atomistic theory took place. The process caused great clamour throughout the city. People collected signatures in favour of the accused, the city was divided and, at the end, the aristocracy supported the Church and the four academics were forced to abjure.⁴²⁰ In Pisa, Alessandro Marchetti (1633-1714) and Donato Rossetti (1633-86), both Borelli's pupils and professors of philosophy, were at the centre of a contention against supporters of Aristotelian philosophy. The quarrel ended in 1691, with Cosimo III's decree in which it was forbidden to teach the philosophy of Democritus

⁴¹⁶ Francis Bacon, 'The Advancement of Learning' in James Spedding, Robert Leslie Ellis, Douglas Denon Heath (eds), *The works of Francis Bacon*, vol.4 (London: Longman and co. 1858), p. 294.

⁴¹⁷ Descartes, 'Principles of philosophy', in *Descartes: Selected Philosophical Works*, trans. by John Cottingham, Robert Stoothoff, (Cambridge: Cambridge University Press 1998), p. 209.

⁴¹⁸ Pierre Gassendi, 'Syntagma philosophicum' in *Opera omnia*, vol.2 (Lyons 1658), I, 122b-123a.

⁴¹⁹ Domenico Bertoloni Meli, *Thinking with Objects: The Transformation of Mechanics in Seventeenth Century*, John Hopkins University Press 2006.

⁴²⁰ Luciano Osbat, *L'Inquisizione a Napoli. Il processo agli ateisti, 1688-1697*, (Rome: Edizioni di storia e letteratura 1974).

in Pisa.⁴²¹ These two attempts to establish a dialogue between the new philosophy and theology failed, but they reveal a desire to reform Italian culture on both sides.

In papal Rome, at the end of seventeenth century, mechanical philosophy and atomism were condemned by the Church more than once.⁴²² The first action of the Inquisition occurred in 1673, when a letter was sent to all the inquisitors in the Italian peninsula, calling on the denunciation of all treatises which mentioned that ‘matter is not composed of matter and form but of corpuscles or atoms’ (*composita substantialia non componi ex materia et forma sed ex corpusculis seu atomis*). Historian Maria Pia Donato has argued that this letter was a measure of preventive censorship and discipline, not a qualification or an act of *magisterium*.⁴²³ This was probably a signal that the way in which natural philosophy should be controlled was not unanimous. The letter hindered many attempts by churchmen to propose a corpuscular solution to the metaphysical explanation of the miracle of the Eucharist. It seems that, as Donato suggests, the request for a *libertas theologandi* was a sign of how the new religious Orders were claiming a degree of autonomy in matters of metaphysics. Due to the increase of their power and authority in the second half of seventeenth century, the warning was confirmed in a second letter, issued in 1705. In this second letter, the emphasis was put on the prohibition to teach those principles, especially in medical faculties, where it was possible to spread personal ideas without the approval of the authorship.⁴²⁴

Rome was a fervent centre of corpuscularistic and atomistic ideas.⁴²⁵ Academies were the places where ideas were spreaded, where philosophers met and confronted

⁴²¹ Susanna Gomez Lopez, ‘Dopo Borelli: la scuola galileiana a Pisa’ in Luigi Pepe (ed.) *Galileo e la scuola galileiana nelle università del Seicento* (Bologna: CLUEB 2011) pp. 223-232.

⁴²² Maria Pia Donato, ‘Scienza e teologia nelle congregazioni romane. La questione atomista 1626-1627’, in ed. by Antonella Romano *Rome et la science moderne. Entre Renaissance et Lumières* (Rome: Publications de l’École française de Rome 2013) pp. 595-634.

⁴²³ Donato, ‘Scienza e teologia nelle congregazioni romane’, pp. 616-22.

⁴²⁴ Donato, ‘Scienza e teologia nelle congregazioni romane’, pp. 616-22.

⁴²⁵ Maurizio Torrini, *Dopo Galileo. Una polemica scientifica 1684-1711* (Florence: Olschki 1979); Silvia De Renzi, Antonio Clericuzio, ‘Medicine, Alchemy and Natural Philosophy in the Early Accademia dei Lincei’, in D. S. Chambers, F. Quiviger (eds), *Italian Academies of the Sixteenth Century* (London: Warburg Institute 1995), p. 175-94; Federica Favino, ‘A proposito dell’atomismo di Galileo : da una lettera di Tommaso Campanella ad uno scritto di Giovanni Ciampoli’, in *Bruniana et Campanelliana*, 3 (1997), p. 265-282; Michael John Gorman, ‘Jesuit exploration of the Torricellian

each other's thinking. There were defenders of a revived Aristotelianism against promoters of the 'modern atomism' and between atomism and metaphysically neutral corpuscularism.⁴²⁶ In addition, the *Giornale dei letterati* (Journal of academics) became the place of confrontation for corpuscularism and atomism, through reviews on different published works.⁴²⁷ Finally, and most importantly for the purposes of this dissertation, even canonisation and beatification trials became a place of confrontation among physicians, in which specific theories on physiology and the nosology of diseases were debated.

During the pontificate of Innocent XI (1676-89), the new philosophy enjoyed a less hostile period in Rome, since the Pope managed to curb the arrogance and power of the Inquisition, endorsing the debate on new ideas.⁴²⁸ It was the period of the Roman magisterium of Lucantonio Porzio (1639-1724), the last of Galileo's school (according to Giambattista Vico, 1668-1744), and follower of Cartesianism (according to other contemporaries).⁴²⁹ In 1680 Alfonso Borelli's *De motu animalium* was finally published, in which the author explains the functioning of

space : carp-bladders and sulphurous fumes', in MEFRIM, 106, (1994), p. 7-32; Alessandro Dini, *Filosofia della natura, medicina, religione. Lucantonio Porzio (1639-1724)* (Milan: Franco Angeli 1985).

⁴²⁶ William Edgar Knowles Middleton, 'Science in Rome, 1675-1700, and the Accademia Fisico-matematica of G. G. Ciampini', in *The British Journal for the History of Science*, 78 (1975), p. 138-154; Salvatore Rotta, 'L'accademia fisico-matematica Ciampiniana : un'iniziativa di Cristina?', in W. Di Palma et al. (eds.), *Cristina di Svezia. Scienza ed alchimia nella Roma barocca* (Bari: Laterza 1990), p. 99-186; Susanna Akerman, *Queen Christina of Sweden and her Circle. The Transformation of a Seventeenth-Century philosophical Libertine* (Leiden: Brill 1991); Maria Pia Donato, *Accademie romane. Una storia sociale, 1671-1824* (Naples: Edizioni scientifiche italiane 2000).

⁴²⁷ Jean-Micheal Gardair, *Le «Giornale de' Letterati» de Rome (1668-1681)*, (Florence 1984); Fiorella Lopiccoli, 'Il corpuscolarismo italiano nel «Giornale de' Letterati» di Roma (1668-1681)', in Maria Vittoria Predeal Magrini (ed.), *Scienza, filosofia e religione tra '600 e '700 in Italia. Ricerche sui rapporti tra cultura italiana ed europea*, (Milan: Franco Angeli 1990) p. 19-92.

⁴²⁸ Bruno Neveu, 'Culture religieuse et aspirations réformistes à la cour de Innocent XI', in ID. *Erudition et religion au XVII et XVIII siècles* (Paris: Albin Michel 1994) pp. 235-276; Claudio Donati 'La chiesa di Roma tra antico regime e riforme settecentesche (1675 1766) in Giorgio Chitollini abd Giovanni Miccoli, *Storia d'Italia Annali 9, La chiesa e il potere politico dal medioevo all'età contemporanea* (Turin: Einaudi 1986) pp. 721-766.

⁴²⁹ Dini, *Filosofia della natura, medicina, religione*.

muscles according to mechanist laws.⁴³⁰ However, the election of Pietro Ottoboni to the papal throne under the name of Alessandro VIII (1689-91) caused an overturning of the Catholic Church's attitude towards the new cultural strands, as the new Pope was one of the supporters of the repression of any innovation within the Church.⁴³¹

One ensuing development which directly involved some of the physicians appointed medical experts in miracle inquiries, was the suppression of the *Congresso medico romano* (Roman medical congress). This was a group of physicians that used to meet at the house of Girolamo Brasavola (1628-1705), including Giovanni Maria Lancisi, Giacomo Sinibaldi and Bartolomeo Santinelli.⁴³² In 1690, they had to stop attending their meetings, since one of the physicians denounced them for professing atomistic theories.⁴³³

Following the death of Alexander VIII, things went better for innovators. In 1691 physician Marcello Malpighi was called to Rome as archiater of the subsequent pope, Innocent XII (1691-1700). Malpighi was a perfect example of how a physician could bring forward leading research without compromising himself with the Church, similar in this to the two iatrophysicists, Baglivi (1668-1707) and Lancisi.⁴³⁴

A last significant event to bear in mind was the publication of Pierre Gassendi's *Opera Omnia* in Florence in 1727. It might seem anachronistic, since Gassendi was a natural philosopher coeval to Galileo, but even if his works were

⁴³⁰ Torrini, *Dopo Galileo*, pp.147-211; Dini, *Filosofia della natura, medicina, religione*; Paolo Galluzzi, G.A. Borelli dal Cimento agli Investiganti in Fabrizio Lomonaco, Maurizio Torrini (eds), *Galileo e Napoli* (Naples: Guida 1987), pp. 339-56.

⁴³¹ Gianvittorio Signorotto, 'Lo squadrone volante. I cardinali liberi e la politica europea nella seconda metà del XVII secolo' in G. Signorotto and Maria Antonietta Visceglia (eds.) *La corte di Roma tra Cinque e Seicento teatro della politica europea* (Rome: Bulzoni 1998), pp. 93-138.

⁴³² Giacomo Sinibaldi (1630-1720), was professor of theoretical medicine (1696-1709) and practical medicine (1710-1719) at the La Sapienza in Rome. He is the author of both treatises in practical and theoretical medicine. Bartolomeo Santinelli (1644-...), is the author of a treatise against transfusion and has written dissertation on various topics among which apoplexy, respiratory functions, the movement of the uterus, etc.

⁴³³ Maria Pia Donato, 'L'onere della prova. Il Sant'Uffizio, l'atomismo e i medici romani' in *Nuncius. Rivista internazionale di storia della scienza*, XVIII (2003) 82, pp. 69-87. For more inquisitorial actions against Italian philosophers see: Vittorio Frajese, *Dal libertinismo ai Lumi. Roma 1690-Torino 1727* (Rome: Viella 2017).

⁴³⁴ Domenico Bertoloni Meli, *Mechanism, experiment, disease : Marcello Malpighi and seventeenth-century anatomy* (Baltimore- Maryland : Johns Hopkins University Press, 2011).

published in Italy almost a century later, he still was a great example of how atomism could be reconciled with Catholicism. As Vincenzo Ferrone has noted, the anonymous introductory essay is a manifesto of a group close to Celestino Galiani (1681-1753) who wanted to reform Catholicism.⁴³⁵ The essay argued that the lack of a *libertas philosophandi* was the first reason for the decadence of Italian culture. It frequently referred to philosophical syncretism and eclecticism to give a new breath to a monochrome culture. There was also a clear accusation of the Inquisition which, although founded to counteract heresy, ended up defending Aristotelianism. The essay develops a method of knowledge in which Galileo's empiricism was revised in light of the Newtonian scientific theory and the philosophy of Gassendi.⁴³⁶

The silence among physicians over epistemology could also have practical origins. Lancisi's academic lecture of 1693 in Siena was concerned with the role of philosophy in medicine. He clearly stated that the study of atoms and particles was useless to medicine. Lancisi compares the physician to a sculptor, who does not need to know the origins of the stone in order to carve it; instead, he should rather concentrate on its sensitive qualities, such as its weight, shape, figure and the proportion of its parts. In the same way, the physician does not need to know atoms and particles of matter, which are not the cause of diseases, but rather the conditions which harm or maintain our bodies. According to Lancisi, after the faculty of arts, the studies of a physician should not be concerned with metaphysics and the atomistic theories of Democritus and Epicurus, but with speculative and practical mathematics, to which we must add chemistry and mechanics. Finally, after learning the anatomy of plants, oviparous and viviparous, the candidate physician has to transfer and apply everything he has learnt to the art of medicine.⁴³⁷

Baldini has argued that Catholic Church did completely not hinder the spread of mechanical philosophy, for two reasons.⁴³⁸ On the one hand, Catholicism was a compound of different factions: the Thomist, more or less radicals, the Scotists, also

⁴³⁵ Vincenzo Ferrone, *Una scienza per l'uomo. Illuminismo e Rivoluzione scientifica nell'Europa del Settecento*, (Turin: UTET 2007), pp. 111-135.

⁴³⁶ Ferrone, *Una scienza per l'uomo*, pp. 111-135.

⁴³⁷ Giovanni Maria Lancisi, 'De ratione philosophandi in arte medica' in *Galleria di Minerva*, tomo IV, part. III, pp. 33-37.

⁴³⁸ Ugo Baldini, 'L'attività scientifica nel primo Settecento' in *Storia d'Italia. Scienza e tecnica*, Annali 3 (Turin: Einaudi 1980), pp. 513-526.

more or less radical, and a residual faction of Occamists, some of them supporters of mechanical philosophy, while others remained Aristotelians. For example, the Jesuits, Baldini argues, were on the one hand leading mathematicians and on issues of faith, strict Aristotelians. Thus they adopted Tycho Brahe's astronomical system even if it was incompatible with the Aristotelian system of planetary spheres. Moreover, the Jesuit Paolo Casati (1617-1707) was the author of the most extensive treatise on metaphysics in seventeenth-century Italy, the *Mechanicorum libri octo* (Lyon 1684). And yet, Casati denies the existence of vacuum and air pressure in this work. However, as we shall see in the next section (and as I have already partly shown in the last section of the previous chapter), mechanical physics was applied to the inquiry into miracles without any difficulties.

5.2 The inquiry on resurrections

As we saw in the brief account of a miracle with which we began this chapter, in inquiries into resurrections the issue most debated between physicians and philosophers was the diagnosis of death. Despite the fact that resurrection could never be a natural occurrence, it could however be misunderstood as a false resurrection--such as when death was expected from a terminal disease or terrible accident but had not yet happened.

In this sense, the core of the investigation lay in the diagnosis of death, and this formed a dividing line which separated resurrection, on the one hand, from an escape from death, on the other--both of which were miracles but of differing degrees. Within the debate on resurrection, mechanics would provide a means of dispelling doubts, largely claiming for a new concept of death.

5.2.1 A new concept of death

The cornerstone of the inquiry into resurrections was not the identification of any natural causes to deny the miracle, but the discrimination between death and apparent death. To prove that a person had really come back from death, it had to be proven that he really had died. At the end of the seventeenth century, the concept of life and death was still based on Galen's theory of the dissipation or suffocation of

the innate heat. This theory was later substituted by a mechanical explanation.⁴³⁹ Contemporary scholars argued that the first systematisation of the concepts of life and death was Xavier Bichat's (1771-1802) treatise *Recherches physiologiques sur la vie et la mort* (Physiological researches on life and death), published in 1800 and considered the first explanation of what happens in the human body when the organism dies. By contrast, Lancisi's *De subitaneis mortibus* (Rome 1707) is completely ignored, because it is regarded as having 'failed to excite the scientific community' of his time.⁴⁴⁰ Despite this criticism, I will show the relevance of Lancisi's new concept of life and death and its application in the inquiry surrounding the debate on resurrections.

Between 1705 and 1706, the citizens of Rome were terrified by a sequence of sudden deaths: people of all ages and social conditions were dying without any apparent cause or recognisable symptoms. Consequently, Pope Clement XI (1700-21) ordered a special medical unit 'to unearth the hidden truth with the anatomist's knife'.⁴⁴¹ The alert ended when physicians discovered that the causes of death were unrelated, avoiding fear of a possible 'epidemic'. Lancisi was one of the physicians in charge of the investigations, which led him to publish the *De subitaneis mortibus* (On sudden deaths), which would later make a difference in the diagnosis of death.

From the beginning of the book, Lancisi points out how his approach deviates from the usual way of investigating death. He claims that in order to understand what death means in medical terms we should previously analyse what life is.⁴⁴² The concept of life and death are no longer antithetical, as the latter is incorporated in the former. The fundamental starting point in Lancisi's inquiry on death is his emphasis on causes rather than signs.

⁴³⁹ Maria Pia Donato, *Sudden Death: Medicine and Religion in Eighteenth-Century Rome* (Farnham, Burlington: Ashgate, 2015).

⁴⁴⁰ Michael Foucault, *Birth of the Clinic: An Archeology of Medical Perception*, trans. A.M. Sheridan Smith, (London: Tavistock 1973), pp. 143-48; Sean M. Quinlan, 'Apparent Death in Eighteenth-century France and England', *French History*, v. 9 (1995), pp. 27-47.

⁴⁴¹ Donato, *Sudden Death*, p. 48.

⁴⁴² 'Since no one is able to form for himself a true and clear idea of any type of death unless he should previously have examined carefully the real and true nature of life, it is indeed necessary for us at this moment, as we are about to investigate the nature and the cause of sudden deaths, to advance first some fundamental concepts about life.' In Paul Dudley White, Alfred V. Boursy, *Translation of De subitaneis mortibus (On sudden deaths)*, (New York: St. Johns University Press) 1971, p. 1.

Starting from the mechanical premise that art works in the same way as nature does (*ars, naturae operum imitatrix*), the body is conceived as a hydraulic machine. Accordingly, life is believed to be as ‘the constant flux and reflux more or less sensible, of air, blood, and nerve-liquid through and from the organs of major function sufficiently well disposed, and which are mutually and alternately more or less sensibly agitated and agitating’.⁴⁴³ In Lancisi’s treatise, human life is thought to depend on the functioning of three systems: the heart and blood, the air and lungs and the nerves and brain system. Each system has its peculiar fluids and organs. Therefore, death is conceived as ‘the true and in every way complete cessation of the movement of air, blood and nerve-fluid within and through the organs of major function, which have truly and completely lost their natural movements’.⁴⁴⁴ This theory is complementary with the theological definition of death as the departure of the soul from the body, which is nothing more than the physiological premise of that separation.

The causal explication of dying brought more accuracy to the diagnosis of death, which could make the difference in the identification of a miracle. Since the medical inquiry on resurrection was based on witnesses’ declarations, the new concept of death provided medical experts with a useful means conceiving the chaotic theory on the signs of death, linking the sign to its causal explanation.

During the seventeenth century, the most secure sign of death was putrefaction. As Zacchia argues: ‘a man is not really dead as long as it is not possible to recognise the signs of incipient putrefaction’.⁴⁴⁵ During the seventeenth and eighteenth centuries, diagnosing death was not necessarily easy, as medicine

⁴⁴³ Vita igitur perfectorum animalium nihil aliud esse videtur, quam continuus, praeside ac movente anima, fluxus, ac refluxus, plus, minusve sensibilis aeris sanguinis, et liquidi nervorum per organa, et organis maioris usus, satis probe constituis, et mutuo, atque alterne plus minusve sensibilibus agitates, agitantibus; in Giovanni Maria Lancisi, *De subitaneis mortibus* (Lucca: Sumptibus Peregrini Frediani 1707), p. 2. Translations of this passage and the next one are mine.

⁴⁴⁴ ‘Mors in hominibus, qui perfectorum animalium sunt omnium opinione perfectissimi, quacunquē ex causa, et quomodolibet contingat, est vera, et omnimoda cessation motus aeris, sanguinis, et fluidi nervorum in organis, et per organa maioris usus, quae naturales suas motiones vere, ac omnino amiserunt’ in Lancisi, *De subitaneis mortibus*, pp. 10-11.

⁴⁴⁵ ‘hominem vere mortuum non nisi ex incipiente putredine cadaveris certo cognosci posse’ in Paolo Zacchia, *QML*, vol. 3 (Lyon: sumptibus Anisson et Posuel 1661), p. 127 (10.Cons.79.21).

continued to fail to provide a useful nosology relating the signs, which might and should be present at the moment of expiration. According to Zacchia, there were some external signs which had to be checked to help confirm a diagnosis of death, such as the cool temperature of the body, bruising on the face and arms, the eyes no longer reflecting the opposite image, the absence of movement of the chest and of pulsation of the carotid artery in the neck, and, more importantly, the absence of breathing.⁴⁴⁶ To accomplish this, certain actions should be undertaken, such as bringing a staple cotton, a spun of wool or a burning candle near the mouth or otherwise putting a glass full of water on the chest of the subject. If the cotton, flame or water moved, this was an indication that the person was still living. In the case of a mirror held to the mouth, it should fog up when life was present. The last test was putting some irritating material into the nostrils of the subject in order to induce sneezing.⁴⁴⁷ The concept of life and death as dissipation of the innate heat did not help to organise the signs of death in a more useful way. It was Lancisi who made the first steps towards organising them more efficiently.

The difficulty of recognising those who, even though not yet dead, nevertheless appear to be dead, arises from the fact that the alternate motion of air, blood, and nerve-fluid through the organs of major function (in which movement to be sure the entire principle of life is said to consist), at times nearly escapes our senses, so that it is known practically to nature alone.⁴⁴⁸

Accordingly, signs of death were organised under the three systems that constituted life. Firstly, respiration, as the function of the air-lung system, had to be demonstrated by the means of the above-mentioned tests. Secondly, the ascertainment of blood flow within the blood-heart system, although this was much more difficult. Lancisi claimed that the movement of the thorax was much more visible than the movement of the heart; however, since the beat of the arteries weakens sooner in the wrist than in the heart or in the aorta and its major branches, it should not be merely sought within the limbs for any movement of the heart, but

⁴⁴⁶ Zacchia, *QML* (Amsterdam: ex typographia Joannis Blaev 1651), pp. 241-47 (4.1.11).

⁴⁴⁷ Zacchia, *QML* (Amsterdam: ex typographia Joannis Blaev 1651), pp. 241-47 (4.1.11).

⁴⁴⁸ In White and Boursy, *Translation of De subitaneis mortibus*, p. 42.

should also be tested in the carotid arteries by the use of strong pressure on the neck with the fingers. Lancisi suggests that, due to the larger diameter of the artery than the veins that go through the wrist and the hand, it is easier to perceive the slightest portion of blood and to carry it to the head. Finally, concerning the nerve-brain system, the chance of perceiving any motion of the nerve fluid was remote. Lancisi advised shouting into the ears or stimulating the senses with the application of scented essences.⁴⁴⁹

In the next section, I will show how Lancisi and his pupil Francesco Soldato applied the new concept of death in a practical context, in order to clarify the effectiveness of the theories of mechanics in the discernment of the natural from the supernatural.

5.2.2 Case study I: what makes a resurrection?

On 10th of October 1670, in the village of Tulle in South-western France, two children, aged six and four, were playing around a cart, loaded with a barrel full of wine. While playing, they moved the cart, causing the back part to fall on their chests, along with the barrel full of wine, which fell on to their necks. The young children remained for three hours under the heavy burden, until a servant came back to the cart, and struggled to lift it up. People rushed to help remove the children from under the load. They looked dead: their bodies were cold, their faces livid, wholly blue, their tongues hanging out of their mouths, scum foaming around their lips, and worst of all, the bones of their chests were broken. A doctor and surgeon were called and they attempted to revive them. They repeatedly opened the veins of the two children, though this did not produce a drop of blood; they sprinkled them with hot wine, but there was no vital movement; they made them swallow brandy and wrapped them with a skin of a ram, just killed. But everything they did seemed useless. Consequently, the physician and the surgeon moved away from the children, saying: 'in the face of death there is no medical knowledge'. Nevertheless, this was not the final judgement for their pious mother, who made a vow to Pierre Fourier

⁴⁴⁹ Lancisi, *De subitaneis mortibus*, pp. 37-41.

(1565-1640)⁴⁵⁰. She applied the hat of the servant of God, which she kept as a relic, to the head of both children, one after the other, and suddenly they opened their eyes, changed colour, started talking and got up perfectly recovered.⁴⁵¹

In Fourier's trial, the Promoter of the Faith was Prospero Lambertini, the physician appointed by the Congregation of Rites was Giovanni Maria Lancisi and the physician appointed by the promoter of the cause was Francesco Soldato, a pupil of Lancisi's. As we noted above, the most important evidence to bring about a case of resurrection was the death of the returned. Since none of them witnessed the supposed resurrection of the two children, they had only witnesses' depositions to rely on.

The Promoter of the Faith claimed that there were no clues to distinguish whether the children were dead or alive. Firstly, there was no evidence that the children stopped breathing while they were under the cart, since witnesses only reported on the time they were trapped, but not whether or not they were breathing. Secondly, none of the tests to ascertain the death of a person (discussed in the previous section) had been carried out, which might have proved if the children were breathing when they were carried into the house. As a result, Lambertini suggested that the children had not died but that, instead, had suffered from apoplexy: a sudden loss of senses and motion, with undetectable signs of breathing or pulsation on the subject, caused by the obstruction of the passage of the animal spirits through the nerves. As the children had not died, no resurrection had occurred.⁴⁵²

The reports of the doctors Soldato and Lancisi were each in two parts. In the first part, they applied mechanical theories to infer as much information as possible from the witnesses' depositions. For example, they tried to quantify the weight that fell over the children. In the second part, they applied the newest medical theories to the case, such as the new concept of death.

⁴⁵⁰ Peter Fourier was a French priest, who reformed the *Canonici Regolari di Sant'Agostino* based in Loren, and founded of the *Canonichesse della Congregazione di Nostra Signora*. He was beatified in 1730 and canonized in 1897.

⁴⁵¹ 'Informatio' in *SRC [...] Petri Forerij [...] positio super dubio [...]*, (Rome: Typis Reu. Camerae Apostolicae 1717), pp. 2-3.

⁴⁵² 'Animadversiones Fidei Promotoris [...] de primo asserto miraculo' in *SRC [...] Petri Forerij [...] positio super dubio [...]*, (Rome: Typis Reu. Camerae Apostolicae 1717), pp. 1-4.

Soldato argued that, since the children were found supine under the back of the cart, they were probably playing with half of the body above the rear part of the wagon, leaving their legs dangling. Accordingly, they increased the weight of the back, causing the lowering of the cart and the fall of the barrel over them. Consequently, they hit the ground with the back of their heads, which is its most fragile part. How severe was the fall from the cart? Soldato claimed that two things had to be quantified: the speed with which the rear of the cart hit the children and the weight that fell over them. ‘Since a stone falls more quickly, if it is heavier or if something pushes it, the body of the children fell down more quickly than if it was due only to their weight. Consequently, the hit on the ground was very harmful’.⁴⁵³

For his part, Lancisi, emphasised the demonstration of the weight of the cart. Firstly, he considered the cart as a lever. Thus, the greater the distance from the back of the wagon and the wheels (the fulcrum of the Roman balance), the greater the pressure of the force on the chest of the children. It seems that the cart which crushed the children was one of those pulled by a single man without the help of animals, for this reason the centre of mass had to be located closer to the front, to enable the man to use only his weight to bring the cart back into balance. Secondly, Lancisi considered the cart as a balance (*libra*). Given that in order to lift up the arm of a balance at least the same weight is needed on the other arm; and given that it was clear from the witnesses’ declarations that the sturdy thirty-six-year-old servant had to use great effort to bring the helms back into balance, the pressure (*vis*) that suffocated the children must have been at least the same as the effort (*opus*) to bring them down. Lancisi wrote that it was as if the man had been standing upon the children’s chests with his knees harnessed in iron and wood for three hours. Finally, Lancisi concluded, the fall of the cart covered a circular movement; therefore, the parts that were farther from the centre moved faster. The force that hit the children on the chest was therefore the strongest that could have occurred in a similar situation.⁴⁵⁴ Regarding the barrel, it rolled down of the cart and stopped on the throat of the children. Since the cart was in equilibrium, the barrel on top had to be quite

⁴⁵³ ‘Responsio medico-phsica Francisci Soldati’, in *SRC [...] Petri Forerij [...] positio super dubio [...]*, (Rome: Typis Reu. Camerae Apostolicae 1717), pp. 3-4.

⁴⁵⁴ ‘Consilia pro veritate Ioannis Mariae Lancisii’ , in *SRC [...] Petri Forerij [...] positio super dubio [...]*, (Rome: Typis Reu. Camerae Apostolicae 1717), pp. 3-4.

near to its axle. Accordingly, when the cart was upended, the speed of the barrel's fall would have increased and, at the same time, hit the children with more force.⁴⁵⁵

Mechanical explanations provided a great amount of new information, which were already implicit in the witnesses' depositions. From knowledge of the cart's weight and the speed of the barrel's fall, they could understand the quantity of the weight pressing on the children and the seriousness of their fall, which were crucial data to understand whether the children had died or not. But did the children really die?

The new concept of death and the consequential organising of its signs were carefully applied by both physicians Soldato and Lancisi, yet they came up with different results. Soldato claimed that all three systems, which provided for the children's lives, were interrupted and did not work anymore. The respiration was occluded by the weight of the rear part of the cart which compressed the children's chests, while the barrel on their throats hindered the input and output of the air. The impact of the nape of the neck with the ground destroyed blood vessels, and the blood they transported did not come out of their ears or noses because the children were lying supine. The disruption of the blood vessels, the hindrance of chest movement and the obstruction of the throats by the barrel caused syncope and, subsequently, the death of the children. Lastly, Soldato affirmed that the lack of a proper investigation of the signs of the children's death, such as the proof of the candle or the glass of water on the chest, which were not reported by any witness, did not compromise the evidence of the children's death. As he concluded, repeating his master's words, it was through causes, and not only through signs, that death had to be proven.⁴⁵⁶

However, Soldato's teacher, Lancisi, reached a different conclusion in his report. Although Lancisi used mechanical explications to prove the severity of the hit and the strength of the pressure of the cart on the chests of the children, like Soldato, two elements brought Lancisi to different considerations: firstly, the lack of blood spillage from the children's ears or noses; and secondly, the emission of foam from the children's mouths. While he agreed with Soldato about the hit and the pressure,

⁴⁵⁵ 'Consilia pro veritate Ioannis Mariae Lancisii', in *SRC [...] Petri Forerij [...] positio super dubio [...]*, (Rome: Typis Reu. Camerae Apostolicae 1717), p. 4.

⁴⁵⁶ 'Responsio medico-physica Francisci Soldati' in *SRC [...] Petri Forerij [...] positio super dubio [...]*, (Rome: Typis Reu. Camerae Apostolicae 1717), pp. 5-7.

which interrupted the flux of blood to the brain, the flux of the animal spirit from the brain to the heart, and the air through the lungs that unsettled the whole state of the children, Lancisi affirmed that they had not really died. As a result of the blow, Lancisi argued, the blood was pushed towards the viscera until the follicles--microscopic sack-shaped cavities--causing them to swell. However, there was no disruption of the follicles as no blood came out of ears or nose. Furthermore, he argued that the foam on their mouths was a distinct sign of imminent death, not a sign that death had already happened. Whereas the two doctors agreed on the causes of children's death, they disagreed on the interpretation of the signs.⁴⁵⁷

According to Lancisi, there was no resurrection because the children did not die. However, death was unavoidable for them due to the presence of the causes of death: the severity of the impact they suffered and the pressure of the wagon and the barrel upon their chest and throat. Therefore, Lancisi suggested that it was a miracle of a different degree. In this case, the miracle lay in the deviation from the course of nature, which should have caused their death. As discussed in chapter two, these kinds of miracles were known as negative miracles. They were 'negative' because they added nothing new to the prior status of the subject, but instead caused something to be removed. Examples of negative miracles were when someone was not burnt in a fire or when a person did not break his or her neck falling down from a cliff or any other case when there the causes of death were present but the subject does not die.

Although both Soldato and Lancisi decided on the miraculous nature of the event, the difference between a resurrection and an escape from death is quite remarkable. According to Thomas Aquinas's classification of miracles, explored in chapter one, resurrection belonged to the second degree of miracle, which was classified by canon lawyers as against nature. This is because nature could never bring back to life people who had died. By contrast, escape from death was generally considered beyond nature (*praeter naturam*) which belonged to miracles of the third degree, since even if a person was to escape an imminent death, the way in which he or she avoided death was not naturally possible.⁴⁵⁸ Moreover, miracles of the second

⁴⁵⁷ 'Consilium pro veritate' in *SRC [...] Petri Forerij [...] positio super dubio [...]*, (Rome: Typis Reu. Camerae Apostolicae 1717), pp. 5-9.

⁴⁵⁸ See chapter 1.

degree, once recognised, were believed to be incontrovertible. Consequently, they did not need the whole set of evidence that was normally requested for miracle cures of the third degree (for example, the instantaneity or the complete recovery of the subject).

Ultimately, the supposed resurrection was approved as miraculous by the Congregation of Rites in 1725 and by Pope Benedict XIII in 1729.⁴⁵⁹ In this instance, the expertise of the *pro miraculo* medical expert was been found more credible than that of the *pro veritate* physician.

5.2.3 Case study II: drowning and breathing

A second key issue debated in resurrection inquiries was that of air and the function of breathing. This concern was probably due to the frequency of drowning episodes involving children, also evident in research on Tudor England.⁴⁶⁰ The Roman priest Michelangelo Lapi who wrote an apposite treatise in 1640, which sought to disentangle the crucial issue of how long people could live underwater.⁴⁶¹ I will show that new discoveries on the function of respiration were immediately applied in miracle investigations involving the apparent resurrection of drowned people. Furthermore, I will suggest that the legal arena of miracle inquiries was, contrary to common belief, not exactly a coercive context, but one which reveals a cultural vivacity comparable to a learned academy or a cultural journal. Finally, I will argue that the specificity of the debate in alleged resurrection stimulated further discussions and researches.

The case at the heart of this section concerns the inquiry of a six-year-old child, called Rosalia, in the beatification process of John of Nepomuk. On the 22nd of February 1718, Rosalia supposedly returned to life after having been drowned in

⁴⁵⁹ *Decretum Canonizationis et Beatificationis [...] Petri Forerij* (Rome: Ex Typ. Reuerendae Camerae Apostolicae 1730).

⁴⁶⁰ Steven J. Gunn, Tomasz W., Gromelski, 'Drowning in Tudor England'. *BBC History Magazine*, 12/13 (2011) pp. 46-9.

⁴⁶¹ Michelangelo Lapi, *Discorso sopra il tempo che si possi star sott'acqua e non morire*, (Rome: per Nicol'Angelo Tinassi 1670).

the River Wattava, close to the town of Nepomuk in today's Czech Republic.⁴⁶² She was returning from the village with her parents, where there were fireworks. She left her father to reach her mother ahead, but when she crossed the icy bridge over the River Wattava, she fell into the water and was suddenly caught in the wheels of the mill. After a while, Rosalia was rescued by the apprentice of the mill and brought to the closest house. They thought she was dead: she was cold, pale and not breathing. They tried to warm her with hot clothes but in vain. The desperate mother invoked Jan Nepomuk to save her daughter, and immediately the child returned to life.⁴⁶³

The promoter of the faith in Nepomuk's trials (1728) was still Lambertini, who in his observations on the *relevantia* of the alleged resurrection, attached a previous medical report written by Lancisi for a similar case in Stanislaus Kostka's trial (1712). In this report, Lancisi argued for an apparent death instead of a resurrection. He explained that breathing underwater could occur in two ways: through transpiration and by the means of Botallo's duct. According to Lancisi, children of four or five years old could naturally survive underwater without suffocating, since when their breath is blocked, the majority of children enjoy the benefit of Botallo's duct and hole. In this occasion, blood diverges its course and it no longer transits through the lungs but through these tube and hole. Botallo's duct (now also known as the *ductus arteriosus*) is an arterial channel connecting the pulmonary artery with the aorta; the hole connects the right ventricle with the left ventricle of the heart.⁴⁶⁴ This was also proved by autopsies of young children, Lancisi added, in which he frequently saw these anomalies. Lancisi was claiming that children did not really die after being underwater for a long time, but could survive in accordance with the laws of nature.

In addition to this, Lancisi's report added an explanation of the phenomenon of transpiration. According to Lancisi, due to the unexpected contact with cold water the breath froze, in both adults and children. The lungs shrank, immediately

⁴⁶² John of Nepomuk (before 1349-1393), was a Bohemian presbyter, preacher at the court of Venceslao. He was canonised by Benedict XIII in 1729.

⁴⁶³ ' [summarium] Quintum signum sive miraculum' in *SRC [...] Ioannis Nepomuceni[...] positio super dubio [...]* (Rome: Typis Reverendae Camerae Apostolicae 1728), pp. 95-98.

⁴⁶⁴ Leonardo Botallo, *Opera medica et chirurgica* (Lyon: ex officina Danielis & Abrahami à Gasbeeck 1660). First discussed by Leonardo Botallo, the duct explained how blood circulation in fetus was possible without any movement of the thorax.

obstructing blood that flew through the pulmonary artery, which therefore diverged through those channels not yet closed. The need to breath decreased or ceased. In this way, Lancisi continued, the life underwater of some mammals was explained, such as otters, beavers, seals and ducks. The particles of air were compressed and contracted underwater by the skin, which flew away from the viscera and blood towards the rest of the body's surface. After waiting around for a while, air particles could resume and supply the organs that usually received it from the movement of the lungs and thorax.⁴⁶⁵

In Nepomuk's trials both the *pro miraculo* and *pro veritate* physicians argued against Lancisi's report. The former was Pietro Assalti (1680-1728), Lancisi's friend, who promptly pointed out that ancient theories on respiration had been abandoned after recent discoveries on the weight and the elasticity of air.⁴⁶⁶ In fact, medicine had moved on thanks to the study of anatomy and mathematics.

In fact, previously Aristotle had thought that the function of air was to keep the innate heat cool, and Galen had thought that lungs were similar to the liver in function and constitution. It was only in the seventeenth century, following the discovery of the circulation of blood by William Harvey (1578-1657), that Marcello Malpighi (1628-94) showed that lung tissue was composed of membranes surrounding minuscule air spaces and that blood circulated through these membranes in capillary vessels. After Robert Boyle's (1627-91) experiments on the elasticity of air, Robert Hooke (1635-1703), his assistant, argued that the essential requirement of respiration was the constant supply of fresh air. Richard Lower (1631-91), found that the change of colour during the passage of blood through the lungs was due to its contact with the air, whose particles crept into blood before separating and going throughout the parts of the body. Finally, John Mayow (1640-79) discovered that just a portion of the air, that he called 'spiritus nitro-aereus', caused combustion. He claimed that the separation of the nitrate from the air happened in the lungs and was carried throughout the body. Mayow proved by means of experiments that the

⁴⁶⁵ 'Animadversiones R. Fidei Promotoris' in *Positio super miraculis [...] Ioannis Nepomuceni*, pp. 140-144.

⁴⁶⁶ See 'Assalti Pietro' in *Biblioteca picena* (Osimo 1790) vol. I, pp. 228-232.

portion removed from the air by respiration was the same as that consumed by fire.⁴⁶⁷

With these developments in mind, Assalti totally refuted Lancisi's argument, contending that children could live underwater for up to half an hour. He argued that human beings could not be compared to other mammals, which could live underwater for hours, since our physical constitution was different. Assalti stated that Botallo's hole was not enough to maintain children alive underwater, since in the uterus they were supplied with the mother's blood through the umbilical cord, which carried the right amount of air particles for the life of the foetus.⁴⁶⁸ Antonio Celestino Cocchi (1685-1747),⁴⁶⁹ the *pro veritate* physician, argued that the Botallo's hole usually disappeared within the first week of life. In line with Assalti, Cocchio claimed that amphibians such as frogs and turtles could live underwater for such a long time, not because of their Botallo's hole, but because of their different lung structure and a special physical constitution.⁴⁷⁰

This brief overview shows two ways of explaining medical issues, which led to two different positions. The former relied much more on a mechanical explanation, which emphasised the function of the air inhaled in the lungs as a cause of the circulation of blood. In this interpretation, Botallo's hole was considered enough for the survival of children underwater. The latter approach relied much more on chemical explanation, which emphasised the function of combustion of the particles of air in the blood. Hence, a constant supply of air was considered necessary for life. I do not mean that the two positions were in conflict; but they did represent two different ways of explaining human physiology in the early eighteenth century, the iatromechanical and the iatrochemical, which can even be found together in the same explanation.

From this, it should be evident that miracle inquiries in canonisation trials are fruitful sources for researchers in the history of medicine, in two ways. First of all, numerous medical experts did not publish anything during their lifetimes, who would otherwise be unknown were it not for their medical reports on alleged miracles. For

⁴⁶⁷ Donald F. Proctor, *A Brief History of Breathing Physiology* (New York: Dekker 1995).

⁴⁶⁸ 'Dissertatio Petri Assalti' in *Positio super miraculis [...] Ioannis Nepomuceni*, pp. 20-28.

⁴⁶⁹ See 'Antonio Celestino Cocchi' *Dizionario biografico degli italiani*, vol. 26, (Rome: Treccani 1982).

⁴⁷⁰ 'Votum pro veritate' in *Positio super miraculis [...] Ioannis Nepomuceni*, pp. 48-54.

example, Francesco Soldato is known only as professor of medicine in Rome, but after reading his medical reports we can add important details concerning his method of inquiry. This case, added to others, sheds light on the kind (mechanical and chemical) of medicine practiced in Rome in the early eighteenth century. Secondly, the inquiry on miracles stimulated discussions on particular issues of physics that would not otherwise have received such attention—such as the question of how long a person can survive underwater.

In our last section, I will return to the fields of theology and philosophy, to further contextualise the above cases, as well as to show how the new emphasis on the laws of nature challenged the idea of miracle contrary to the order of nature.

5.3 Resurrections: above or against the laws of nature?

In miracles of the second degree, such as recoveries from incurable diseases, there was no possibility of a natural cure. The whole set of evidence necessary to ascertain miracles of the third degree, analysed in the previous chapter, were therefore superfluous. As I have explained in chapter one, according to Aquinas, miracles of the second degree did not consist in a deviation from the course of nature (*quoad modum*), but in a naturally impossible event that occurred to the subject (*quoad subjectum*). These miracles are described as events contrary to the course of nature, by Aquinas and canon lawyers. Lambertini, by contrast, did not emphasise miracles of the second degree as something contrary to the course of nature. His position is much more similar to the experimental philosopher Robert Boyle's, whose theory of miracle must be inscribed within Christian apologetics. In this third and final section, I will argue that Lambertini—who was inclined to the widest application of the new physics in the inquiry of miracles—endorsed the definition of miracles of the second degree as miracles not contrary to the laws of nature, in line with the Northern European debate over miracles.

When it came to inquiries on resurrections, as we observed in the previous two case analyses, the core of the debate did not focus on the discernment between the natural and the supernatural, since resurrections could only be above nature. The problem for theologians was how to justify the numerous ancient philosophers who stated that resurrection occurred according to natural causes. Plato, in *The Republic*,

refers to a man called Er who died in battle and, after twelve days when he was put on a pyre, returned to life and told what he had seen.⁴⁷¹ Plutarch also tells the story of Thespesius of Soli, who came back to life after his soul had departed from his body.⁴⁷² Paolo Zacchia, in his *Quaestiones*, wonders why learned men argued that resurrections occurred according to nature.⁴⁷³ He claims that the more he investigated the nature of miracles, the more the vanity of some learned men's knowledge appeared to him. Zacchia understood that recovering from a serious disease could mislead someone to consider it a natural cure, even if there were all the hallmarks to judge it a miracle. What he could not understand was how learned men could judge prophesy according to nature and claim that by means of imagination people could go out of the body and rise up from the ground.

Zacchia argues that such mistakes took place not because they failed to distinguish resurrection from something similar, but because they claimed that resurrection happened according to nature. Zacchia was absolutely convinced that nothing similar to resurrection could happen according to natural causes. To validate his thinking, he resorted to the formula of ancient Greek cosmogony, albeit slightly modified: *ex nihilo nihil naturaliter fit* (nothing can naturally come from nothing), which, when applied to resurrection, means that a man cannot come back after death by means of natural causes.⁴⁷⁴ The addition of the adverb 'naturaliter' is referring to Aquinas's commentary on the twelfth book of Aristotle's *Metaphysics*.⁴⁷⁵ It reveals, as explained in chapter one, the twofold order of things in which Scholastic theologians and canon lawyers organised their thoughts: the natural and the supernatural. Zacchia could never accept the ancient formula *ex nihilo nihil* (nothing comes from nothing), since it would have excluded God's creation of the universe, which according to Christianity was out of nothing (*creatio ex nihilo*). At the same time it would have been impossible for Zacchia to ever fully accept the formula *ex*

⁴⁷¹ Plato, *Plato's Republic*, I. A. Richards (trans.) (Cambridge : The University press 1966) bk 10, ch. 13-16.

⁴⁷² Matteo Tauffer, *Il mito di Tespesio nel De sera numinis vindicta di Plutarco* (Napoli: D'Auria, 2010).

⁴⁷³ Zacchia, *QML*, pp. 241-2 (4.1.11.1).

⁴⁷⁴ Zacchia, *QML*, p.246 (4.1.11.23).

⁴⁷⁵ 'ex nihilo nihil fit secundum naturam', see Thomas Aquinas, *Commentary on the Metaphysics*, John P. Rowan (trans.) (Chicago: Henry Regnery Company 1961) bk. 12, Lect. 1.

nihilo omnia (everything out of nothing), which described, for example, the *modus operandi* of alchemy, since this rule claimed that what was attributed to God could also belong to nature, breaking the limits between the natural and the supernatural.⁴⁷⁶ In fact, according to some early modern alchemists, resurrection could happen naturally in plants. The Jesuit polymath Athanasius Kircher (1602-80) described an experiment made with the herb he called ‘*erba fenice*’, a plant that he made to return to life from its dust in a test tube. Yet plants did not have soul, which was probably why it was possible to carry out the experiment in the Collegio Romano (the Jesuits’ flagship educational institution) in the heart of Papal Rome.⁴⁷⁷

Zacchia and almost all canon lawyers defined miracles of the second degree as events contrary to the axiom: *a privatione ad habitum non datur regressus* (there is no return from privation to habit), which was partly based on Aristotle’s *Metaphysics* (book H, 1044 b34-1045 a6). Aristotle pointed out that vinegar could not become wine again, nor could a dead animal be restored to life without a total corruption of its matter. Hence, vinegar had to become water before it could become wine again; and the corpse had to be resolved into its components. Aristotle described a kind of circular property of the course of nature with a precise direction. The same principle appears in Aquinas’s philosophy of miracles, albeit slightly modified: *A privatione in habitum non potest fieri regressus secundum naturam* (according to nature there is no return from privation to habit). The addition of the words *secundum naturam* is meaningful, revealing the adaptation of the principle to a different cosmography in which God is conceived separately from the course of nature.⁴⁷⁸ Aristotle’s principle was also adopted to outline the extraordinariness of the miracle of resurrection: *a privatione, ides morte, ad habitum non datur regressus secundum naturam* (according to nature there is no return from privation, which is death, to habit).⁴⁷⁹ The canon lawyer Agostino Matteucci defined resurrections as the

⁴⁷⁶ As Mersenne critically noted: ‘*Admirabilis Alchimia quae omnia producit ex nihilo, cum Alchimistae ex omnibus nihil producant.*’ Marin Mersenne, *Quaestiones in Genesim* (Paris: sumptibus Sebastiani Cramoisy, via Iacobaea sub Ciconijs 1623), p. 1483.

⁴⁷⁷ John Edward Fletcher, *A study of the life and works of Athanasius Kircher, "Germanus Incredibilis"* (Leiden-Boston: Brill, 2011), p. 44; Se also: Paula Findlen, *Athanasius Kircher: the Last man who knew everything* (New York-London: Routledge 2004).

⁴⁷⁸ See chapter one.

⁴⁷⁹ Thomas Aquinas, *Summa theologiae*, qu. LXXV supplemento.

most important miracle of the second type.⁴⁸⁰ In fact, the meaning of miracles of the second degree dwelled on the fact that naturally *a privatione ad habitum non datur regressus*. This axiom described the course of Aristotelian nature bounded around hylomorphism. As I have explained in chapter one, according to Aristotle's metaphysics, things are compounded of matter and form and since the former is in potency respect to the latter which is in act, it is unthinkable a reverse direction from potency to act.

When Lambertini dealt with miracles of the second degree, he never referred to the Aristotelian axiom, only mentioning it when he dealt with resurrections.⁴⁸¹ Lambertini's philosophy of miracles was not based on the opposition of nature and supernature. From the beginning of the fourth book on miracles, he refers to a twofold created natural order: one natural and the other supernatural. For Lambertini, applying the new idea of nature shared by natural philosophers, resurrections could not be an event *contra naturam* but had to be *super naturam*. If, according to Aquinas, the course of nature could be reversed by God, within mechanicism the course of nature was regulated by laws of nature that could not be broken. To understand the reasoning behind Lambertini's position we have to briefly outline the debate over miracles in Northern Europe.

In Protestant reformed Europe, the protagonists of the dispute were not Scholastic theologians or canon lawyers--more or less supporters of Aristotle's philosophy--but mechanical philosophers. They refused Aristotelian physics and grounded their positions on the new idea of nature, investigated by the exclusive means of reason. Consequently, the new philosophers faced a challenge: how to explain the relation between bodies, within a concept of matter deprived of the control of a formal cause, of powers, tendencies, appetites and which was deprived by the orientation of its final cause. The solution was the substitution of a concept of the course of nature that was basically orderly and capable of corrections with the concept of laws of nature.

⁴⁸⁰ 'quae maximum est et in primo gradu excellentiae miraculorum secundis generis' in Agostino Matteucci, *Practica theologico-canonica* (Venice: apud Nicolaum Pezzana 1722), p. 168.

⁴⁸¹ 'Tritum insuper est apud philosophos, a privatione ad habitum naturae visibilis regressum minime dari...' in Lambertini, *DSDB*, p. 198 (4.1.21.3).

According to historian Catherine Wilson, the origin of this switch is twofold.⁴⁸² On the one hand, the idea of laws of nature came from Aquinas's well-developed concept of law, in which the human subjection to divine moral law was considered as one aspect of the law-obeying tendencies in created things. Hence, mechanical philosophers had only to transfer the well-established theological doctrine of God's omnipotence from the moral order into the realm of natural philosophy.⁴⁸³ On the other hand, the terms 'law' and 'rule' had appeared in treatises of optics, astronomy and mathematics since the Middle Ages, without any theological implication. While nature was thought to be inscribed in mathematical characters, they just had to extend the concept of law to the whole of nature. Consequently, miracles became those events that broke the laws of nature, which was unacceptable for eighteenth-century mechanical philosophers. Some of them, especially Deists, denied the possibility of miracles when they were inexplicable by reason. According to John Toland (1670-1722), a miracle had to be intelligible and possible, not contrary to reason and it should follow the laws of nature.⁴⁸⁴ Accordingly, some miracles of the New and Old Testament were inevitably dismissed.

By contrast, some supporters of theological voluntarism, who emphasised God's will to the detriment of the intellect (reason), defended the Christian theory of miracles.⁴⁸⁵ According to the Newtonian Samuel Clarke (1675-1729), God was

⁴⁸² Catherine Wilson, 'From Limits to Laws: The Construction of the Nomological Image of Nature in Early Modern Philosophy' in Lorraine Daston and Michael Stolleis (ed.) *Natural Law and Laws of Nature in Early Modern Europe. Jurisprudence, Theology, Moral and Natural Philosophy* (Farnham-Burlington: Ashgate 2008), pp. 13-28.

⁴⁸³ Francis Oakley, 'Christian Theology and the Newtonian Science: The Rise of the Concept of the Laws of Nature' in *Church History* vol. 30. no.4, 1961 pp. 433-457 (441).

⁴⁸⁴ John Toland, *Christianity not Mysterious* (London: Kessinger Publishing 1702), pp. 145-146.

⁴⁸⁵ The literature on voluntarism and the rise of modern science is vast, here are the main references: the first to consider the origin of modern science in the changed relationship between God and nature was Michael B. Foster, who published three papers in the journal 'Mind' in 1934, 1935 and 1936. To which followed: Oakley, 'Christian Theology and the Newtonian Science'; Gary B. Deason 'Reformation Theology and the Mechanistic Conception of Nature' in D. C. Lindberg and R.L. Numbers (ed.) *God and Nature* (Berkeley-Los Angeles-London: The University of California Press 1986), pp. 136-66. For a contrary standpoint see: Peter Harrison, 'Voluntarism and Early Modern Science' in <<http://epublications.bond.edu.au/hss_pubs/61>>. For an enlarged view which includes

active in nearly all natural events. What distinguished a natural event from a miracle was its unusualness: raising a dead body from the ground was considered miraculous, but only because God was not accustomed to acting in that way. Hence, it was men's ignorance of nature that led them to identify an event as a miracle. It was not contrary to the laws of nature, but as Augustine had said, it depended only on the ignorance of the witnesses: it was the name we gave to something that we still cannot explain.⁴⁸⁶

Boyle's position diverged from both the Deists and the Newtonians. He conceived miracles as an event above nature.⁴⁸⁷ This is evident in Boyle's brief essay 'Some Physico-Theological Considerations about the Possibility of Resurrection', published in 1675.⁴⁸⁸ In this case, the author was referring to the final resurrection of human beings, which is written in the Old Testament. We will see how the reasoning of a mechanical natural philosopher was different from that of a Catholic canon lawyer and how Boyle's attempt at an explanation coincided with the aims of Lambertini's argument on miracles.

From the outset of Boyle's treatise, we find a relevant difference from the Catholic treatises on resurrection. To defend the miracle of resurrection, Boyle argued against those who dismissed the resurrection of matter as something naturally possible, because it was contrary to reason. According to Boyle, those who stated

also Catholicism see Guido Canziani, Miguel A. Granada, Yves Charles Zarka (ed.), *Potentia Dei. L'onnipotenza divina nel pensiero dei secoli XVI e XVII* (Milan: Franco Angeli 2000).

⁴⁸⁶ Ezio Vailati 'Leibniz and Clarke on Miracles' in *Journal of the History of Philosophy* vol. 33, no. 4, (1995), pp. 563-91.

⁴⁸⁷ On Boyle's concept of miracles see: James E. McGuire, 'Boyle's Conception of Nature' in *Journal of the History of Ideas*, vol.3, no.4, (1972), pp. 523-42; Mario Sina 'Robert Boyle e il problema dell''above reason'' in *Rivista di Filosofia Neo-Scolastica*, vol.65 no. 4 (1973), pp. 746-70; Timothy Shanahan 'God and Nature in the Thought of Robert Boyle' in *Journal of the History of Philosophy* vol.26, no. 4, (1988), pp. 547-569; Peter Harrison 'Newtonian Science, Miracles and the Laws of Nature' in http://epublications.bond.edu.au/hss_pubs/55 (1995); Thomas Holden, 'Robert Boyle on Things Above Reason' in *British Journal for the History of Philosophy*, vol.15, no. 2, (2007), pp. 283-312; Antonio Clericuzio, 'God and the Physical World in Boyle's Thought', in *Departure for Modern Europe. Aufbruch in das moderne Europa. A Handbook of Early Modern Philosophy (1400-1700)* edited by H. Busche (Hamburg: Felix Meiner Verlag 2011), pp. 1033-1047.

⁴⁸⁸ On Boyle idea of resurrection see: Salvatore Ricciardo, 'Robert Boyle on God's 'experiments': Resurrection, Immortality and Mechanical Philosophy' in *Intellectual History Review* vol.25, no. 1 (2015) pp. 97-113

that the resurrection of bodies is impossible, argued that the lost part of material could not naturally be recomposed in a dead body once consumed, melted or whenever a man was devoured by a beast. By contrast, Boyle argued, firstly, that the body was not a marble statue, but changed constantly during life and that it was always considered the same person by law, even if the body was thinner or bigger than before. Secondly, Boyle argued that many things transformed themselves in nature and returned to the previous state, like water which become ice and then water again:

All bodies being but parcels of the universal matter mechanically different, they may successively put on forms, in a way of circulation, till they return to their original form, whence they first began; by only their mechanical properties altered.⁴⁸⁹

Although Aristotelian theologians believed in the circularity of things in nature, in the case of resurrection of dead bodies, they always stated that it was impossible by nature. By contrast, according to Corpuscularism, all bodies were made of the same particles whose differences did not depend on the diversity of matter and form, but on the different motions, positions and sizes of the parcels. For these reasons, Boyle continues, the resurrection of bodies recounted in the Bible, especially those of Lazarus and Jesus, which he indicated as experiments of God that proved the efficacy of resurrection to us, were not contrary to nature but in accordance to it. The difference was that God's omnipotence and omniscience was able to gather all those parts of the body with the soul:

It cannot seem incredible, that the most free and powerful author of those laws of nature, according to which all the phenomena of qualities are regulated may, as he think fit, introduce, establish or change them, in any assigned portion of matter, and consequently in that where of human body consists.⁴⁹⁰

⁴⁸⁹ Robert Boyle, *The Philosophical Works of Honourable Robert Boyle*, Peter Shaw (ed.), vol.2 (London: W. and J. Innys 1725), p. 235.

⁴⁹⁰ Boyle, *The Philosophical Works*, p. 238.

It is interesting to note, firstly, that Boyle starts this essay by contesting those who believed that resurrection was impossible in nature, which is the opposite way in which canon lawyers began their argument about miracles. This is because, for mechanical philosophers, something contrary to reason would be unacceptable. The boundaries between the natural and the supernatural do not correspond any more to, respectively, the detectable and the inscrutable; rather all, the natural and the divine, is conceived within reason. Everything outside of it, is considered non-existent. Secondly, it is evident that Boyle's explanation of resurrection is based on a different physics, which is mechanical, in respect to the explanation made by canon lawyers, based on Aristotelian physics. The former reveals that resurrections can occur in nature, the latter that resurrections are contrary to nature, since the course of nature is conceived to respond to the active-passive dynamism explained by Aristotle, in which a passive matter is activated by form and there is no way for coming back.

If we compare Boyle's definition of resurrection with Lambertini's argument that miracles do not break the laws of nature, we will find many affinities between them. According to Lambertini, the supernatural was not separated and contrary to the natural; it was created nature that was twofold, one compounded of visible causes, the other of unknown causes. However, Lambertini did not directly use the new philosophy to revise the classification of miracles, but endorsed it exclusively as a means to prove the overcoming of the natural boundaries. By contrast, Lambertini found in Augustine, and not in corpuscularism, a helpful means of defending the non-opposition of miracles to nature. He used the theory of seeds to argue against those who explained miracles as contrary to the natural, reaching the same ends as Boyle.⁴⁹¹ Both intended to find a way of reconciling theology and mechanical philosophy, to counteract those who denied the possibility that miracles could exist. An extract of Lambertini's letter to the cardinal Pierre Guérin De Tencin (1680-1758) confirms this concern:

It would be time to finish these competitions and that Catholic theologians would write against materialists, atheists, deists who are trying to eradicate Our Holy Religion from its grounds.⁴⁹²

⁴⁹¹ See chapter two.

⁴⁹² 'Sarebbe ormai tempo che finissero queste gare, e che i teologi cattolici scrivessero contro i materialisti, gli ateisti, i deisti, che tirano a svellere la Santa Nostra Religione da' suoi fondamenti'

There is a sharp limit in Lambertini's arguments that cannot be exceeded, in which the concept of miracle is argued exclusively within Scholasticism and the Fathers of the Church. Boyle's chapter on resurrection is widely quoted, although not because of his metaphysical issues but for his experiments on the consistence and function of air.⁴⁹³ Since the theory of respiration was largely debated throughout the eighteenth century, along with how long a human being could survive in water, it was a fundamental issue in the inquiry of resurrection. Boyle proved that resurrection was not in contradiction to mechanical philosophy. However, in Catholic Europe, and especially in papal Rome, mechanical philosophy and theology never overlapped with one another. Previous attempts to give mechanical explanations to theological issues had been seriously punished, as we observed at the beginning of this chapter. Yet, the intervention of natural philosophy in the enquiry of miracles did actually produce some serious changes. Even if mechanics was never used as a heuristic means in theological treatises on miracles, as soon as it was applied in the inquiries on miracles during canonisation trials it did produce radical changes.

5.4 Conclusion

In this chapter, we have seen, first of all, how mechanical philosophy developed in Catholic Italy during the late seventeenth and early eighteenth centuries. We have stressed the silent compromise that permitted their co-existence in papal Rome. In section two, we examined two cases of inquiries on resurrections. This allowed us, on the one hand, to observe how mechanics was applied to evaluate possible miracles of resurrection; emphasising the crucial role played by medical experts in the identification of the causes of death, without which a case of resurrection could not be distinguished from an apparent death. We noted the absence of philosophical discussion, such as the mechanical procedure of recomposing the parcels of a body during resurrections. Analysis of the two

Lettera al card. De Tencin, Rome 3rd May 1752. in Emilia Morelli (ed.) *Le lettere di Benedetto XIV al card. de Tencin. Dai testi originali*, vol. II (Rome: Storia e letteratura 1965) p. 473.

⁴⁹³ Boyle's experiments with air are quoted in Lambertini, *DSDB*, pp. 300-1.

resurrection cases also allowed us to see how the miracle inquiries were also been a site of confrontation and debate between medicine's different approaches. And, in the third section, by juxtaposing the figure of Lambertini with Boyle, we have tried to shed light on the reasons that moved Lambertini to propose the second revision of the concept of miracle: the non-contrariety to nature. While we were careful to stress the differences between the explanation of resurrection by a canon lawyer such as Lambertini and a mechanical philosopher such as Boyle, we found that they shared a similar concern: to defend the existence of miracles by those who tried to deny them, such as Deists and atheists. The only way to defend miracles was to prove that they were not contrary to reason, which, according to mechanical philosophy, meant proving that they were not contrary to the laws of nature.

Concluding Remarks

To conclude my dissertation, we need to return to the dialectical nature of the category of the supernatural, which I referred to in the prologue of my Introduction. In particular, we need to focus on the close relationship between cosmology and epistemology that I believe is the precondition to understanding the main changes in early modern cosmology explored in the preceding chapters. I have identified and analysed two of these changes: firstly, the end of the dialectical relationship of opposition between the category of the natural and the supernatural; and, secondly, the blurring of the category of the preternatural.

Let us begin by retracing the main stages of the first point. In chapter one, I reconstructed the origin of the category of the supernatural in twelfth century, stressing its dialectical nature. In Augustine, the term supernatural had not yet been invented, and yet, through his definition of miracle as a natural event, we were able to infer that there were no ideas of opposition or boundaries between the natural and the divine. By contrast, Thomas Aquinas's definition of the supernatural depended on its opposition to the concept of nature and its dialectical relationship to the category of the natural. If Augustine's cosmology revealed the neoplatonic idea of an inclusive relation between the natural and the divine, Aquinas's cosmology revealed the separation and exclusive relationship between God and nature. The definition of miracle as natural event, evident in Augustine's writing, and Aquinas's definition of miracle as being in opposition to the order of nature, are emblematic of the two different cosmologies which form the bedrock of later developments.

Chapter one stands in close relationship to chapter five. Whereas in the Middle Ages, the relationship between the natural and the supernatural was grounded in the dialectical opposition between both, from the end of the seventeenth century that opposition started to be understood as hindering the possibility of the existence of the supernatural itself. I have chosen to focus on the example of resurrections, since early modern canon lawyers considered them as miracles contrary to the course of nature *par excellence*. Indeed, the definition of resurrection was grounded on the breaking of Aristotle's metaphysical rule: 'There is no return from privation to habit'. On the other hand, Prospero Lambertini denied any breaking of natural laws in each degree of miracle, revealing a changed relationship between the natural and

the supernatural to the historian. In chapter five I compared Lambertini's revision of the concept of miracle with Robert Boyle's explanation of resurrection as a miracle not contrary to the laws of nature, showing the common intent to counteract philosophers such as Baruch Spinoza, who denied the existence of anything contrary to the laws of nature, including miracles. Early modern definitions of miracles as events not contrary to the laws of nature reveal attempts to adjust the theory of miracle to a different cosmology, in which the opposition between the natural and the supernatural no longer made sense.

The other main point of my dissertation was to shed light on the blurring of the category of the preternatural. The most evident signal was the possibility of miracles being performed by angels examined by Lambertini. In chapter one, I explained that Augustine admitted that angels too could work miracles, since nature was not thought in opposition to the divine, and angels acted as expert artisans who knew the secrets of nature. By contrast, Aquinas's adoption of Aristotelian physics did not allow him to think about angels as actively operating in nature, since they were spiritual creatures who consisted of form alone. Furthermore, the idea of miracles performed by angels would have undone the dialectical opposition between natural and supernatural, creating a kind of overlapping zone between both. The issue could be only reposed when the concept of the natural changed in seventeenth century. Francisco Suarez's inclusion of angels as miracle performers denotes his departure from Aquinas's metaphysics.

In chapter two, I analysed Lambertini's affirmation that miracles could be performed by angels, which is a clear manifestation of the changing relationship between the natural and the supernatural. By contrast, all sixteenth- and early-seventeenth-century canon lawyers denied the possibility that angels could perform miracles, thus denoting the persistence of Aristotelian physics and a clear distinction between the supernatural and a created nature, in which the works of angels and demons were included. Lambertini, probably due to his direct experience as Promoter of the Faith, flagged up the discrepancy between the theoretical definition of miracle and the evaluation of miracle in the canonisation trials. At first, he proposed a drastic measure: the denial of any previous healing miracles because also angels might also have performed them. Later, he proposed angels as performers of miracles, in his treatise on canonisation, that was one of the most famous and largely

adopted through centuries. The general definition of miracle as an event surpassing the whole of created nature could no longer be accepted.

The third degree of miracles was particularly affected by the new concept of nature. We analysed their nature in chapter four. It became evident how the definition of the third degree of miracles--as events that exceeded the course of nature in the way they happen, not in their substance or in the subject (as in the other two degrees of miracles)--closely depended on the definition of nature itself. We saw how healing miracles depended on the judgment of medicine, since the gravity of the disease, the sudden and perfect cure, could only have been verified by medical experts. In fact, as soon as the boundaries of the natural were put into place, it became impossible to distinguish a preternatural event worked by angels from a miracle of the third degree, because the separation between the preternatural and the supernatural began to blur. The boundary which distinguished the preternatural from the supernatural was no longer detectable by the medical experts.

When natural philosophers adopted mathematics as a proper means of investigating nature and atoms or corpuscular parcels as the constituents of matter, the definition of nature changed. Clear-cut boundaries merged against everything outside nature, causing the end of any dialectical relationships between the natural and the preternatural, as well as the natural and the supernatural. This was a fundamental cosmological shift which was probably one of the main reasons for the cessation of witchcraft and demonology.⁴⁹⁴ The works of angels could not be accepted as natural events, because everything out of the order of the natural vanished into a blurred category. Lambertini's declaration that angels could perform miracles was an attempt at adapting Church thinking to this modern cosmology. It was not an innovation or a new proposal which came out from Lambertini's mind, but the awareness of a discrepancy between the current definition of miracle of the third degree and the factual miracles as examined in a canonisation trials. It was Lambertini's attempt to adjust theory to practice.

It remains to be investigated to what extent the adaptation of the concept of miracles to the new cosmology, as proposed by Lambertini, was accepted and adopted by contemporary Catholic theologians and apologists and to what extent it

⁴⁹⁴ Stuart Clark, *Thinking with Demons. The Idea of Witchcraft in Early Modern Europe* (Oxford-New York: Oxford University Press 1997), p. 10.

influenced the eighteenth-century debate over miracles. All we can say is that the debate remained heated. In the first Vatican Council (1869-70) there was no mention of a wider concept of miracle which included the works of angels.⁴⁹⁵ This was noticed by the theologian Alfred Vacant (1852-1901), who claimed that the Council did not admit the revision of the concept of miracles and criticised Lambertini's revision since it would have created confusion between the miraculous and the marvellous.⁴⁹⁶ In fact, the admission of angels would have it made difficult to distinguish them from the works of demons. By contrast, the Jesuit John Hardon (1914-2000), claimed that Lambertini's definition of the concept of miracle as an event exceeding visible and corporeal nature was accepted by modern theologians.⁴⁹⁷

The issue remains controversial for another reason. Those who accepted Lambertini's proposal did not intend to identify it as modern innovation; instead, they affirmed that it was in line with Aquinas's concept of miracle, which in a sense was also what Lambertini claimed.⁴⁹⁸ In my dissertation I have tried to demonstrate that, despite the assertions of theologians--who are more inclined to show consistency within the Catholic doctrine than to uncover historical truths--the concept at least changed in practice, because the concept of nature on which it depended also changed. This is in fact the main originality of my research approach as undertaken in this dissertation: considering the supernatural as historical fact. This radical departure led me, in turn, to seek to understand its dialectical origins. As I suggested in the Introduction, no historians have treated the supernatural as a historical category. They have either simply ignored the fact or they have tried to solve the problem by replacing it with supposed universal categories. By contrast, I think that historians cannot really do other than to relativise, contributing to the reconstruction of the 'multidimensionality of reality', my general approach to the study of the past.⁴⁹⁹ By treating the supernatural as historical fact, I have been able

⁴⁹⁵ Clark, *Thinking with Demons*, p. 246.

⁴⁹⁶ Jean Michel Alfred Vacant, *Etudes Théologiques Sur Les Constitutions Du Concile Du Vatican*, vol. 2 (Paris-Lyon: Delhomme et Briguet 1895), pp. 41-42.

⁴⁹⁷ Hardon, *The Concept of Miracle from St. Augustine to Modern Apologetics*, pp. 248-9.

⁴⁹⁸ Henri Pinard de Boullaye, S. J., *Jesus Messie: Le thaumaturge et le prophète* (Paris: Spes 1931), p. 79.

⁴⁹⁹ Geoffrey E. R. Lloyd, 'History and Human Nature: Cross-cultural Universal and Culture relativities' in *Interdisciplinary Science Reviews* vol. 35, No. 3-4 (2010), pp. 201-14 (210).

not only to identify its origins and developments in time and place, but also its ending. As I have sought to demonstrate, it is my belief that the end of the medieval category of the supernatural coincided with the revision of the concept of miracle and the origin of a new concept of nature. This contributed to frame a new ‘world picture’ within which we are still living.

In constructing the history of the supernatural in this dissertation, I have downplayed the Neoplatonic revival of the Renaissance and Pietro Pomponazzi’s (1462-1525) Aristotelian explanation of the natural causes of miracles, which represented an important departure from the long medieval tradition along the lines that I have described so far.⁵⁰⁰ The reason for this decision lay in not finding any indications within Scholastic theology on miracles and the treatises on canonisation that might have been taken up in Renaissance Neoplatonism. Instead, I have chosen to be guided exclusively by the Thomistic concept of miracle, which, at least historically, is a ‘visible’ and ‘concrete’ fact, reported in early modern canonisation trials. I decided to follow Aby Warburg’s advice when he wrote of himself as a ‘seismograph of the soul to be placed along the dividing lines between different cultural atmospheres and systems’.⁵⁰¹ Thus, when I came across Lambertini’s declarations on miracles, I could only wince. At a later stage of this project, however, I realised that the revision of the concept of miracle revealed a deeper and significant change in the mind of the various authors I was working on. With this historical understanding I can now appreciate the profound meaning of the words of the priest and philosopher Antonio Conti (1677-1749), to the point of perceiving the vertigo they contain, when he described the birth of a new sense of the world in this emblematic way: ‘I began clearly aware that to begin reasoning from the senses was very different than beginning from God’.⁵⁰²

⁵⁰⁰ Pietro Pomponazzi, *De incantationibus*, Vittoria Perrone Compagni (ed.) (Florence: Olschki 2011).

⁵⁰¹ Aby Warburg, ‘On Planned American Visit’ (1927); unpublished text of five typewritten pages, kept in Warburg’s personal archive (catalogue number 93.8). Printed in Philippe-Alain Michaud, *Aby Warburg and the Image in Motion* (New York: Zone Books 2004), pp. 331-5.

⁵⁰² ‘Ben mi accorsi che il cominciar da’ sensi a filosofare era diversissimo dal cominciar da Dio’. Antonio Conti, *Prose e poesie*, vol. 2 (Venice: presso Giambattista Pasquali 1756), p. 4.

Bibliography

Manuscripts

Biblioteca universitaria di Bologna (BUB)

Ms. 425, tt. I-IV *Catalogus bibliothecae domesticae Ssmi domini nostri Benedicti XIV*, 1750: t. II, p. 541.

Ms. 1070 (578 according to the previous collocation), *Notae de miraculis*.

Biblioteca Lancisiana

ms. Lancisi 303, ff. 25-33; 47-56; 93-122.

ms. Lancisi 307, ff. 333-61.

Printed Primary Sources

Acta canonizationis sanctorum Pii V. pont. max., Andreae Auellini, Felicis a Cantalicio, & Catharinae da Bononia (Rome: ex typographia Vaticana in Archigymnasio Sapientiae 1720).

Amici, Giacinto, *Il sacro rito della canonizzazione brevemente descritto* [...], (Rome 1807) extended edition: (Rome: Tipografia di Crispino Puccinelli 1838).

Thomas Aquinas, *Commentary on the Metaphysics*, John P. Rowan (trans.) (Chicago : Henry Regnery Company 1961).

Aquinas, Thomas, *Summa contra gentiles*, trans. Vernon J. Bourke (Notre Dame: University of Notre Dame Press 1975).

Id., *On the Power of God*, trans. Richard J. Regan (Oxford-New York: Oxford University Press 2012).

Id., *The Summa theologica*, trans. Fathers of the English Dominican Province (Chicago-London-Toronto-Geneva: Encyclopaedia Britannica, Inc. 1952).

de Araujo, Francisco, *Variae et selectae decisiones morales ad statum ecclesiasticum et civilem pertinentem*, (Lyon 1614).

Aristotle, *Meteorology*, trans. by E. W. Webster in *The Complete Works of Aristotle: The Revised Oxford Translation*, Jonathan Barnes (Princeton: Princeton University Press 1984) vol.1.

Id., 'Categoriae', trans. E. M. Edghill in W. D. Ross (ed.) *The Works of Aristotle* (Oxford: Clarendon Press 1908-52).

Augustine, 'On the Profit of Believing', in *Nicene and Post-Nicene Fathers*, Philip Schaff (ed.) vol. 3 (Buffalo: The Christian Literature Co. 1886-90).

Idem, *The Writings Against Manicheans and the Donatists*, Philip Schaff (ed.), first edition 1887 (Ontario: Devoted Publishing 2017).

Id., *The Trinity*, trans. Edmund Hill (Hyde Park, New York: New York City Press 1991).

Id., *The Literal Meaning of Genesis*, trans. by John Hammond Taylor (New York; Mahwah: Paulist Press 1982).

Augustine, *City of God*, trans. Marcus Dods (Edinburgh: T & T Clark 1871).

Botallo, Leonardo *Opera medica et chirurgica* (Lyon: ex officina Danielis & Abrahami à Gasbeeck 1660).

Bacon, Francis, 'The Advancement of Learning' in James Spedding, Robert Leslie Ellis, Douglas Denon Heath (eds), *The works of Francis Bacon*, vol.4 (London: Longman and co. 1858).

Id., *Descriptio globi intellectualis*, John M. Robertson (ed.), *The Philosophical Works of Francis Bacon*, 1st pub. 1905, (Oxon: Routledge 2011).

Boyle, Robert, *The Philosophical Works of Honourable Robert Boyle*, Peter Shaw (ed.), vol.2 (London: W. and J. Innys 1725).

Bordoni, Francesco, *Opus posthumum, consistens in diversis meditationibus, ordine contexto super miraculorum essentiam, & qualitatem* (Parma: typis Pauli Monti 1703).

Brancati di Lauria, Lorenzo 'De miraculis', in *Commentaria tertium librum sententiarium Ioannis Duns Scotis*, tomus quartus (Rome: Haeredum Corbelletti 1676).

Calvin, John, *Institutes of the Christian Religion*, John T. McNeill (ed.) vol.2 (Louisville: Westminster John Knox Press, 1960).

Caraccioli, Louis Antoine *Vita del papa Benedetto XIV Prospero Lambertini con note istruttive*, (Venice: Simone Occhi 1783).

Castellani, Giacomo, *Tractatus novus de canonizatione sanctorum* (Rome 1521).

Contelori, Felice, *Tractatus et Praxis de Canonizatione Sanctorum*, (Lion: Sumptibus Laurentii Durand 1634).

Cospi, Antonio Maria, *Il giudice criminalista* (Florence: stamperia di Zanobi Pignoni 1643).

Descartes, 'Principles of philosophy', in *Descartes: Selected Philosophical Works*, trans. by John Cottingham, Robert Stoothoff, (Cambridge: Cambridge University Press 1998).

Farinacci, Prospero, *Tractatus de testibus*, (Venice: apud haeredes Iohannis Varisci, 1596).

Fassoni, Liberato, *De miraculis adversus Benedictum Spinozam* (Rome: ex typographia Joannis Zempel 1755).

Fracastoro, Girolamo, *Homocentrica eiusdem de causi criticorum dierum per ea quae in nobis sunt*, (Venice: 1538).

Gassendi Pierre, 'Syntagma philosophicum' in *Opera omnia*, vol.2 (Lyons 1658).

Grattarola, Marco Aurelio, *Successi meravigliosi della venerazione di S. Carlo* (Milan: Pacifico Pontio et Gio Battista Piccaglia 1614).

Hales, Alexander of, *Summa Theologiae* (Coloniae Agrippinae : sumptibus Ioannis Gymnici sub Monocerote 1622).

Huarte, Juan, *Examen de ingenios para las ciencias* (Madrid 1575).

Lambertini, Prospero, *De servorum Dei Beatificatione et beatorum canonizatione*, 4 vols. (Bononia: Formis Longhi excursoris archiepiscopalis 1734-8).

Id., *De servorum Dei Beatificatione et beatorum canonizatione*, 4 vols. (Padua: Typis Seminarii apud Joannem Manfrè 1743).

Id., *De servorum Dei Beatificatione et beatorum canonizatione*, 4 vols. (Rome: excudebant Nicolaus et Marcus Palearini 1749-51).

Lancisi, Giovanni Maria, *De subitaneis mortibus* (Lucca: Sumptibus Peregrini Frediani 1707).

Id., 'De ratione philosophandi in arte medica' in *Galleria di Minerva*, tomo IV, part. III, pp. 33-37.

Lanzani, Niccolò *Vero metodo di servirsi dell'acqua fredda nelle febbri* (Napoli: de Bonis 1723).

Lapi, Michelangelo, *Discorso sopra il tempo che si possi star sott'acqua e non morire*, (Rome: per Nicol' Angelo Tinassi 1670).

Lombard, Peter, *The Sentences*, Trans. G. Silano (Toronto: Pontifical Institute of Medieval Studies, 2008).

Luther, Martin, *Luther's Works* vol 3 ed. Jaroslav Pelikan (Philadelphia: Fortress Press, 1955).

Mascardi, Giuseppe, *De probationibus* (Lion : apud Guilielmum Rouillium, 1589).

De Matta, Felice *Novissimus de sanctorum canonizatione tractatus* (Rome: typis & sumptibus Nicolai Angeli Tinassij 1678).

Menochio, Giacomo, *Tractatum de praesuntionibus*,(Turin: Giovanni Domenico Tarino, 1589).

Pignatelli, Giacomo, *Consultationum canonicarum*, (Venice: apud Paulum Balleonium 1646).

Plato, *Plato's Republic*, I. A. Richards (trans.) (Cambridge : The University press 1966).

Raguseo, Giorgio, *Epistolarum mathematicarum seu de divinatione* (Paris: Nicolai Buon 1623).

Rocca, Angelo, *De Canonizatione sanctorum* (Rome: apud Guilelmum Facciottum 1601).

Congregatione sacrorum rituum [...] Catharinae a Bononia [...] Positio super dubio (Rome: ex typographia Reuerendae Camerae Apostolicae 1680).

Sacra Rituum Congregatione [...] Stanislai Kostkae [...] Positio super dubio (Rome: Rev. Camerae Apostolicae 1710).

Sacra Rituum Canonizationis [...] Stanislai Kostkae [...] Positio secunda super miraculis (Rome: Rev. Camerae Apostolicae 1711/1712).

Sacra rituum congregatione [...] Francisci Regis [...] Positio super dubio (Rome: typis Reuerendae Camerae Apostolicae 1712).

Francisci Regis [...] Positio super miraculis (Rome: typis Reuerendae Camerae Apostolicae 1713).

Francisci Regis [...] Responsio ad novas animadversiones r. fidei promotoris, (Rome: typis Reuerendae Camerae Apostolicae, 1713).

Sacra Rituum Congregatione [...] Petri Forerij [...] positio super dubio [...], (Rome: Typis Reu. Camerae Apostolicae 1717).

Sacra Rituum Congregatione [...] Gregorii papae X positio super dubio, (Rome: typis Reu. Camerae Apostolicae, 1718).

Sacra Rituum Congregatione [...] Ioannis a Cruce [...] Positio (Rome: Typis Rev. Camerae Apostolicae 1720).

Sacra Rituum Congregatione [...] Aloysii Gonzagae [...] Positio super miraculis (Rome: ex typographia Reverendæ Camerae Apostolicæ 1721).

Sacra Rituum Congregatione, Tullen. beat. et can. [...] Petri Forerij Novae animadversiones [...] (Rome: Rev. Camera Apostolica 1726).

Sacra Rituum Congregatione [...] Julianae de Falconeriis [...] responsio ad animadversiones r. fidei promotoris, (Rome: ex typographia Reuerendae Camerae Apostolicæ 1727).

Sacra Rituum Congregatione [...] Ioannis Nepomuceni[...] positio super dubio [...] (Rome: Typis Reverendae Camerae Apostolicæ 1728).

[Sacra Rituum Congregatione] Decretum Canonizationis et Beatificationis [...] Petri Forerij (Rome: Ex Typ. Reuerendae Camerae Apostolicæ 1730).

de Saint-Paul, Charles *Tableau de l'éloquence française* (Paris 1632)

Scacchi, Fortunato, *De cultu et veneratione servorum Dei* (Rome: ex typographia Vitalis Mascardi 1639).

Scotus, Duns, *Quaestiones quatuor voluminum scripti Oxoniensis super sententias* (Venice: typis Io- Iacobi Hertz 1680).

Sennert, Daniel *Practicae Medicinae liber quartus*, (Lyon: sumpt. Petri Ravaud 1633).

Suarez, Francisco *Tractatus de gratia Dei* (Paris: Vives 1857).

Id., *Selection from Three Works of Francisco Suarez*, trans. by Gwladys L. Williams, Ammi Brown and John Waldron (Indianapolis: Liberty Fund 2015).

Id., *De angelis*, (Paris: Vives 1856) vol. 2.

Toland, John, *Christianity not Mysterious* (London: Kessinger Publishing 1702)

Vecchiotti Filippo, Moro Tommaso (ed.) *Biblioteca picena* (Osimo: Domenicantonio Quercetti 1790).

Zacchia, Paolo, *Quaestiones medico-legales* (Amsterdam: ex typographia Joannis Blaeu 1651).

Id., *Quaestiones medico-legales*, (Lyon: sumptibus Anisson et Posuel 1661).

Secondary Sources

Alessandrini, Emidio, “*Creder tutto...creder nulla*”: il Notae de Miracoli: opera inedita del cardinal Prospero Lambertini (Benedetto XIV), sui fenomeni straordinari e magico-superstiziosi, Excepta ex dissertatione ad Doctoratum in Theologia morali consequendam (Assisi: S. Mariae Angelorum 1995).

Ackerknecht, Erwin H. , ‘Early History of Legal Medicine’ in Chester R. Burns (ed.) *Legacies in Law and Medicine*, (New York: Science History Publications 1977), pp. 249-71.

de Angelis, Maria Antonietta, *Prospero Lambertini: un profilo attraverso le lettere* (Città del Vaticano: Archivio segreto Vaticano 2008).

Akerman, Susanna, *Queen Christina of Sweden and her Circle. The Transformation of a Seventeenth-Century philosophical Libertine* (Leiden: Brill 1991).

Alfaro, Juan, *Lo natural y lo sobrenatural: estudio historico desde Santo Tomas hasta Cajetano (1274-1534)* (Madrid: Consejo Superior de Investigaciones Cientificas 1952).

Antonelli, P. Francesco O.F.M., *De inquisitione medico-legali super miraculis in causis beatificationis et canonizationis* (Rome: Pontificium Athenaeum Antonianum 1962).

Arosio, Marco, *Aristotelismo e teologia: da Alessandro di Hales a San Bonaventura*, (Munich: Liamar 2012).

Ascheri, Mario, ‘Consilium sapientis. Perizia medica e res iudicata: diritto dei dottori e istituzioni comunali’, in Proceedings of the Fifth International Congress of Medieval Canon Law: Salamanca 21-25 September 1970, ed. S. Kuttner and K. Pennington, (Vatican City 1980), pp. 533-79.

Bagnoli, Martina, C. Griffith Mann, James Robinson, Holger Klein (eds), *Treasures of Heaven: Saints, Relics, and Devotion in Medieval Europe* (Baltimore: The Walters Arts Museum 2010).

Baldini Ugo, ‘La scuola galileiana’ in *Storia d’Italia. Scienza e tecnica*, annali 3 (Turin: Einaudi 1980) pp. 383-463.

Baldini, Ugo, ‘L’attività scientifica nel primo Settecento’ in *Storia d’Italia. Scienza e tecnica*, Annali 3 (Turin: Einaudi 1980), pp. 513-526.

Barbera, Mario, *La Ratio sturdiorum e la parte quarta delle Costituzioni*

della Comapagnia di Gesù (Padua: Cedam 1942).

Barnett, S. J., *The Enlightenment and Religion: The Myth of Modernity*, (Manchester-New York: Manchester UNiversity Press, 2003).

Bartlett, Robert, *The Natural and the Supernatural in the Middle Ages* (Cambridge: Cambridge University Press 2008).

Barzani, Antonella *Gli affanni dell'erudizione. Studi ed organizzazione culturale degli ordini religiosi a Venezia tra Sei e Settecento* (Venice: Istituto veneto delle scienze, lettere ed arti 2004).

Belda Plans, Juan, *La Escuela de Salamanca y la renovación de la teología en el siglo XVI* (Madrid: Biblioteca de autores cristianos 2000).

Bertoloni Meli, Domenico, *Thinking with Objects: The Transformation of Mechanics in Seventeenth Century*, (Baltimore-Maryland: John Hopkins University Press 2006).

Bertoloni Meli, Domenico, *Mechanism, experiment, disease: Marcello Malpighi and seventeenth-century anatomy* (Baltimore- Maryland : Johns Hopkins University Press, 2011).

Bacchini, Amato, *La vita e le opere di Giovanni Maria Lancisi* (Rome: stab. Sansaini 1920).

Black, Christopher F., *Church, Religion and Society in Early Modern Italy* (New York: Palgrave Macmillan 2004).

Id., *The Italian Inquisition* (New Haven: Yale University Press 2009).

Bloch, Marc *The Royal Touch: Monarchy and Miracles in France and England* (Abingdon-on-Thames: Routledge 1973).

Boesch Gajano, Sofia, Marilena Modica (eds), *Il miracolo. Dai segni alla storia* (Rome: Viella, 2000).

Boyer, Charles, 'La théorie augustinienne des raisons séminales' in *Miscellanea agostiniana* (Rome: Ordine ermitano di s. Agostino, 1931), t. II, pp. 795-819.

Id., 'la notion de nature chez saint Augustin' *Doctor communis* 8 (1955), pp. 65-76.

Id., *Essais anciens et nouveaux sur la doctrine de saint Augustin* (Milan: Marzorati 1970) pp. 215-28;

Bougerol, Jacques C., 'Dossier pour l'étude des rapports entre saint Bonaventure et Aristote' in *Archives d'Historie Doctrinale et Littéraire du Moyen Age*, 48 (1973), pp. 135-222.

Bouley, Bradford A., *Dissecting the Holy Body: Between Religion and Medicine in Early Modern Europe*, Phd dissertation 2012.

Bourke, Joanna, *The Story of Pain* (Oxford: Oxford University Press 2014).

Brady, Jules M., 'St. Augustine's theory of seminal reasons', *New Scholasticism*, XXXVIII (1964), pp. 141-158.

Brambilla, Elena, *Corpi invasi e viaggi dell'anima. Santità, possessione, esorcismo dalla teologia barocca alla medicina illuminista* (Rome: Viella 2010).

Brieskorn, Norbert, 'Suárez and the Question of Miracles' *Revista Portuguesa de Filosofia*, 65 (2009), pp. 1315-1318.

Brizzi, Gian Paolo (eds), *La "Ratio studiorum". Modelli culturali e pratiche educative dei Gesuiti in Italia tra Cinque e Seicento* (Rome: Bulzoni 1981).

Brockliss, Laurence, Jones, Colin, *The Medical World of Early Modern France* (Oxford: Oxford Press 1997).

Brown, Peter, *Augustine of Hippo* (London: Faber 1967).

Id., *The Cult of the Saints : its Rise and Function in Latin Christianity* (Chicago : University of Chicago Press 1981).

Burke, Peter 'Rituals of healing in Early Modern Italy' in *The Historical Anthropology of Early Modern Italy: Essays on Perception and Communication* ed. by P. Burke (Cambridge University Press 1987).

Burns, R. M., *The Great Debate on Miracles. From Joseph Glanvill to David Hume*, (London-Toronto: Associated University Press 1981).

Bynum, Caroline walker, 'Wonder' in *The American Historical Review*, Vol. 102, No. 1 (1997), pp. 254-268.

Caffiero, Marina, 'Scienza e politica a Roma in un carteggio di Celestino Galiani (1714-1732). Società romana di storia patria, *Archivio* 101 (1978), pp. 311-44.

Canetti, Luigi, 'L'incubazione cristiana tra antichità e medioevo' *Rivista di storia del cristianesimo* vol. 7, no.1 (2010), pp. 149-80.

Canziani, Guido, Granada Miguel A., Zarka Yves Charles (ed.), *Potentia Dei. L'onnipotenza divina nel pensiero dei secoli XVI e XVII* (Milan: Franco Angeli 2000).

- Capitani, Ovidio (ed.), *L'eresia medievale* (Bologna: il mulino 1977).
- Caraccioli, L.A., *Vita del Papa Benedetto XIV. Prospero Lambertini*, Ital. trans. , Venice 1783 (*Le vie du Pape Benoit Prosper Lambertini, avec des Notes instructives, et son Portrait*, Paris 1783).
- Cecchelli, Marco (ed.), *Benedetto XIV (Prospero Lambertini): Convegno internazionale di studi storici*, Cento 6-9 dicembre 1979, vols. 2, (Cento: Centro studi Girolamo Baruffaldi 1982).
- Cerruti, Simona and Pomata, Giovanna (eds) 'Fatti: storie dell'evidenza empirica' Vol. 36, No. 108 (2001), pp. 647-931.
- Chenu, Marie-Dominique, O.P., *Towards understanding St. Thomas*, trans. A.M. Landry, O.P. and D. Hughes, O.P. (Chicago: Henry Regnery 1963).
- Chesterton, Gilbert Keith, *St. Thomas Aquinas: the Dumb Ox* (London : Hodder & Stoughton 1943).
- Chittolini, Giorgio and Miccoli, Giovanni (eds), *Chiesa e potere politico dal medioevo all'età contemporanea. Annali 9* (Turin: Einaudi 1986).
- Clark, Stuart 'French Historians and Early Modern Popular Culture', *Past and Present*, 100 (1983), pp. 62-99.
- Id., *Thinking with Demons. The Idea of Witchcraft in Early Modern Europe* (Oxford-New York: Oxford University Press, 1997).
- Clericuzio, Antonio, 'God and the Physical World in Boyle's Thought', in *Departure for Modern Europe. Aufbruch in das moderne Europa. A Handbook of Early Modern Philosophy (1400-1700)* edited by H. Busche (Hamburg: Felix Meiner Verlag 2011), pp. 1033-1047.
- Ciliberto, Michele *Pensare per contrari: disincanto e utopia nel Rinascimento* (Rome: Storia e letteratura, 2005).
- Conte, Emanuele (ed.), *I Maestri della sapienza di Roma dal 1514 al 1787 : i rotuli e altre fonti* (Rome : Istituto storico italiano per il Medio Evo: 1991).
- Cooper, Kate and Gregory, Jeremy (eds), *Signs, Wonders, Miracles. Representations of the Divine Power in the Life of the Church*, *Studies in Church History*, vol.41 (Rochester NY: The Boydell Press, 2005).
- Coujou, Jean-Paul, 'Bibliografia suareciana' (Pamplona: Servicio de Publicaciones de la Universidad de Navarra 2010).
- Courtine, Jean-François, *Suarez et le système de la métaphysique* (Paris: Presses Universitaires de France 1990).

Craig, Martin, *Subverting Aristotle: Religion History and Philosophy in Early Modern Science* (Baltimore: John Hopkins University Press 2014).

Crawford, Catherine, 'Legalizing Medicine: Early Modern Legal System and the Growth of Medico-Legal Knowledge' in M. Clark, C. Crawford (ed.) *Legal medicine in history*, (Cambridge: Cambridge University Press 1994), pp. 89-116.

Criscuolo, Vincenzo, *Presentazione in Benedetto XIV De servorum..vol. I/1* (Vatican city: libreria editrice vaticana 2010) pp. 9-71.

Cunningham Andrew and Grant Edward: A. Cunningham, 'The Identity of Natural Philosophy. A Response to Edward Grant' in *Early Modern Science and Medicine*, 5 (2000), pp. 259-78;

Dahm, John J., 'Science and Apologetics in the Early Boyle Lectures', *Church History* vol. 39 no. 2 (1970), pp. 172-186.

Dal Covolo, Enrico and Sfameni Gasparro Giulia (eds), *Cristo e Asclepio. Culti terapeutici e taumaturgici nel mondo mediterraneo antico far cristiani e pagani*, Atti del convegno internazionale. Accademia di Studi Mediterranei, Agrigento 20-21 novembre 2006 (Rome: LAS 2008).

Dear, Peter 'Miracles, Experiments and the Ordinary Course of Nature' *Isis* vol. 81, No. 4 (Dec. 1990), pp. 663-83.

Id., *Discipline and Experience. The Mathematical Way in the Scientific Revolution* (Chicago: University of Chicago Press 2009).

Daston, Lorraine, 'Marvelous Facts and Miraculous Evidence in Early Modern Europe' in *Critical Inquiry*, 18, no. 1 (1991), pp. 93-124.

Daston, Lorraine, "Baconian Facts, Academic Civility and the Prehistory of Objectivity," *Annals of Scholarship* 8 (1991), pp. 337-64.

Id., 'The Nature of Nature in Early Modern Europe' in *Configurations*, 6 (1998), pp. 149-72.

Daston, Katherine Park, *Wonders and the Order of Nature* (New York: Zone Books, 1998).

Dauphinais, Matthew, David Barry, Michael Levering (ed.) *Aquinas the Augustinian* (Washington DC: Catholic University Press 2007).

Deason, Gary B., 'Reformation Theology and the Mechanistic Conception of Nature' in D. C. Lindberg and R.L. Numbers (ed.) *God and Nature* (Berkeley-Los Angeles-London: The University of California Press 1986), pp. 136-66.

De Maio, Romeo, 'L'ideale eroico nei processi di canonizzazione della Controriforma' in *Ricerche di storia sociale e religiosa*, vol. 1, No.2 (1972) pp. 139-60.

De Michelis Pintacuda, Fiorella, 'Onnipotenza divina e libertà umana in Lutero: la salvezza e l'etica' in Guido Canziani, Miguel A. Granada and Yves Charles Zarka (eds) *Potentia Dei*, pp. 45-62.

Dalla Torre, Giuseppe, 'Santità ed economia processuale. L'esperienza giuridica da Urbano VIII a Benedetto XIV', in G. Zarri (ed.), *Finzione e santità tra medioevo ed età moderna*, (Turin: Rosenberg & Sellier 1991), pp. 231-63.

Id., *Santità e diritto. Sondaggi nella storia del diritto canonico*, (Giappichelli: Torino 1999).

De Renzi, Silvia and Clericuzio, Antonio, 'Medicine, Alchemy and Natural Philosophy in the Early Accademia dei Lincei', in D. S. Chambers, F. Quiviger (eds), *Italian Academies of the Sixteenth Century* (London: Warburg Institute 1995), p. 175-94.

Id., 'Witnesses of the Body: Medico-legal cases in seventeenth century Rome' in *Studies in History and Philosophy of science* 33 (2002).

Id., 'Medical Expertise, Bodies and the Law in Early Modern Court' *ISIS* vol. 98, no. 2 (2007), pp. 315-322.

Dini, Alessandro, *Filosofia della natura, medicina, religione. Lucantonio Porzio (1639-1724)* (Milan: Franco Angeli 1985).

Di Rienzo, E., 'Galiani, Celestino' in *Dizionario biografico degli Italiani* vol. 51 (Rome: Istituto della enciclopedia italiana 1998) pp. 453-6.

Ditchfield, Simon, 'How Not to Be a Counter-Reformation Saint: The Attempted Canonization of Pope Gregory X, 1622-45' in *Papers of the British School at Rome*, Vol.60 (1992), pp. 379-422.

Id., 'Sanctity in Early Modern Italy', *Journal of Ecclesiastical History*, 47 no.1 (1996), pp. 98-112.

Id., 'The Tridentine Worship and the Cult of Saints' in R. Po-chia Hsia (ed), *The Cambridge History of Christianity*, vol.6 (Cambridge: Cambridge University Press 2007) pp. 201-24

Id., 'Thinking with Saints: Sanctity and Society in Early Modern World' *Critical Inquiry* 35 (2009), pp. 552-84.

Donati, Claudio 'La chiesa di Roma tra antico regime e riforme settecentesche (1675-1766)' in Giorgio Chitollini and Giovanni Miccoli, *Storia d'Italia Annali 9, La chiesa e il potere politico dal medioevo all'età contemporanea* (Turin: Einaudi 1986) pp. 721-766.

Donato, Maria Pia, *Accademie romane. Una storia sociale, 1671-1824* (Naples: Edizioni scientifiche italiane 2000).

Id., 'L'onere della prova. Il Sant'Uffizio, l'atomismo e i medici romani' in *Nuncius. Rivista internazionale di storia della scienza*, XVIII (2003) 82, pp. 69-87.

Id., 'Scienza e teologia nelle congregazioni romane. La questione atomista 1626-1627', in Antonella Romano (ed.) *Rome et la science moderne. Entre Renaissance et Lumières* (Rome: Publications de l'École française de Rome 2013) pp. 595-634.

Id., *Sudden Death: Medicine and Religion in Eighteenth-Century Rome* (Farnham, Burlington: Ashgate, 2015).

Dreyer, Mechthild and Ingham, Mary Beth, *The Philosophical Vision of John Duns Scotus. An Introduction*, (Washington: The Catholic University of America Press 2004).

Duffin, Jacalyn *Medical Miracles: Doctors, Saints and Healing in the Modern World* (Oxford-New York: Oxford University Press 2009).

Eire, Carlos M.N., *War Against the Idols* (New York: Cambridge University Press, 1986).

Esposito, Costantino, 'Suarez and the Baroque Matrix of Modern Thought' in Victor M. Salas and Robert L. Fastiggi (eds) *A Companion to Francisco Suarez* (Leiden: Brill 2014), pp. 124-47.

Fattori, Maria Teresa (ed.), *Le fatiche di Benedetto XIV. Origine ed evoluzione dei trattati di Prospero Lambertini (1675-1758)* (Rome: Edizioni di storia e letteratura 2011).

Id. (ed.), *Storia, medicina e diritto nei trattati di Prospero Lambertini* (Rome: Storia e Letteratura 2013).

Foucault, Michel, *Birth of the Clinic: An Archeology of Medical Perception*, trans. A.M. Sheridan Smith, (London: Tavistock 1973).

Favino, Federica, 'A proposito dell'atomismo di Galileo : da una lettera di Tommaso Campanella ad uno scritto di Giovanni Ciampoli', in *Bruniana et Campanelliana*, 3 (1997), p. 265-282.

Id. 'Scienza ed erudizione nei collegi degli ordini religiosi a Roma tra Sei e Settecento' in M. C. Giannini (eds) *Religione conflittualità cultura. Il clero regolare nell'Europa di antico regime*, (Rome: Bulzoni 2006) pp. 331-70.

Id. 'Ordini religiosi e scienza moderna', in A. Clericuzio and S. Ricci (eds), *Il contributo italiano alla storia del pensiero*, Enciclopedia Italiana, Appendice VIII (Rome: Istituto Treccani 2013), pp.1-8.

Federici Vescovini, Graziella *Medioevo magico. La magia tra religione e scienza nei secoli XIII e XIV*, (Turin: UTET 2008).

Ferraro, Domenico, *Itinerari del volontarismo. Teologia e politica al tempo di Luis de Leon* (Milan: Franco Angeli 1995).

Ferrone, Vincenzo, *Una scienza per l'uomo. Illuminismo e Rivoluzione scientifica nell'Europa del Settecento*, (Turin: UTET 2007).

Frajese, Vittorio, *Dal libertinismo ai Lumi. Roma 1690-Torino 1727* (Rome: Viella 2017).

Filippini, Nadia Maria, *Generare, partorire, nascere. Una storia dall'antichità alla provetta* (Rome: Viella 2017).

Findlen, Paula (ed.), *Athanasius Kircher: the Last man who knew everything* (New York-London: Routledge 2004).

Finucane, C. Ronald, *Contested Canonisations: the Last Medieval Saints 1482-1523* (Washington D.C.: The Catholic University of America Press 2011)

Fix, Andrew, 'Angels, Devils, and Evil Spirits in Seventeenth-Century Thought: Balthasar Beckker and the Collegiants', in *Journal of the History of Ideas* vol. 50 no. 4 (1989).

Fletcher, John Edward, *A study of the life and works of Athanasius Kircher, "Germanus Incredibilis"* (Leiden-Boston: Brill, 2011).

Frydman, René and Szejer Myriam (ed.), *La naissance en Occident; La Naissance: Histoire, Cultures, Pratiques d'Aujourd'hui* (Paris: Albin Michel 2010); Katharine Park, *Secret of women. Gender, Generation and the Origin of Human Dissection* (New York: Zone Books 2006).

Frutaz Pietro Amato, *Le principali edizioni e sinossi del De servorum Dei beatificatione et beatorum canonizatione di Benedetto XIV (Prospero Lambertini)* in *Convegno Internazionale di Studi Storici sotto il patrocinio dell'Arcidiocesi di Bologna, Cento 6-9 dicembre 1979* (Cento: Centro studi Girolamo Baruffaldi 1981) vol. 1, pp. 27-90.

Galluzzi, Paolo G.A. *Borelli dal Cimento agli Investiganti* in Fabrizio Lomonaco, Maurizio Torrini (eds), *Galileo e Napoli* (Naples: Guida 1987), pp. 339-56.

Gardair, Jean-Micheal, *Le «Giornale de' Letterati» de Rome (1668-1681)*, (Florence 1984).

Gatto, Romano, *Tra scienza e immaginazione: le matematiche presso il collegio gesuitico napoletano (1552-1670)* (Florence: Olschki 1994).

Gentilcore, David, *Healers and Healing in Early Modern Italy* (Manchester: Manchester University Press 1998).

Geretto, Mattia, *L'angelologia leibniziana* (Soveria Manelli: Rubettino 2010).

Giacon, Carlo, *La seconda scolastica: i grandi commentatori di San Tommaso*, vol. 1, (Milan: Bocca 1944).

Gilson, Etienne, *Porquoi saint Thomas a critiqué saint Augustine* (Paris: Vrin 1986), originally in *Archives d'histoire doctrinale et littéraire du moyen age*, 1 (1926) pp. 2-127.

Giovannucci, Pierluigi, *Il processo di canonizzazione del cardinal Gregorio Barbarigo* (Rome: Herder 2001).

Id., *Canonizzazione e infallibilità pontificia in età moderna* (Brescia: Morcelliana 2008).

Gleason, Elisabeth G., *Gasparo Contarini: Venice, Rome and Reform* (Berkeley-Los Angeles: University of California Press 1993).

Goodich, Michael, *Miracles and Wonders: The Development of the Concept of Miracles, 1150-1350* (Aldershot-Burlington: Ashgate 2007), pp. 8-28.

Gombrich, Ernst Hans, *Aby Warburg: an intellectual Biography* (London: The Warburg Institute, 1970).

Gomez Lopez, Susanna 'Dopo Borelli: la scuola galileiana a Pisa' in Luigi Pepe (ed.) *Galileo e la scuola galileiana nelle università del Seicento* (Bologna: CLUEB 2011) pp. 223-232.

Gorman, Michael John, 'Jesuit exploration of the Torricellian space : carp-bladders and sulphurous fumes', in MEFRIM, 106, (1994), p. 7-32; Alessandro Dini, *Filosofia della natura, medicina, religione. Lucantonio Porzio (1639-1724)* (Milan: Franco Angeli 1985).

Gotor, Miguel, *La fabbrica dei santi: la riforma urbaniana e il modello tridentino*, in *Storia d'Italia. Annali 16: Roma, la città del papa. Vita civile e religiosa dal giubileo di Bonifacio VIII al giubileo di papa Wojtila*, A. Prosperi, L. Fiorani (eds) (Torino: Einaudi 2000) pp. 677-727.

Id., *I beati del papa. Inquisizione e obbedienza in età moderna* (Firenze: L. Olschki 2000).

Gousmett, Chris 'Creation, order and miracles according to Augustine' *EvQ* 60 (1988) pp. 217-40.

Id., *Chiesa e santità nell'Italia moderna* (Bari: Laterza, 2004).

Grant, Edward, 'God and Natural Philosophy: The Late Middle Ages and Sir Isaac Newton' in *Early Modern Science and Medicine*, 5 (2000), pp. 279-98.

Grant, R. M., *Miracle and Natural Law in Graeco-Roman and Early Christian Thought* (Amsterdam: North-Holland Publishing Company, 1952).

Grossi, Vittorio, *Baio e Bellarmino interpreti di S. Agostino nelle questioni del soprannaturale*, (Rome: Studium theologicum Agostinianum 1968).

Gunn, Steven J. and Gromelski, Tomasz W., 'Drowning in Tudor England'. *BBC History Magazine*, 12/13 (2011) pp. 46-9.

Gurevich, A. J., *Categories of Medieval Culture* (Abingdon-on-Thames: Routledge and Keegan Paul, 1985).

Gutierrez, J.L., 'Le prove sussidiarie nelle cause di canonizzazione (opinioni di Prospero Lambertini e innovazioni di Benedetto XIV)', *Jus Ecclesiale* no. 5 (1993) pp. 545-574.

Hahn, Cynthia, 'What do reliquaries do for relics?' in *Numen* 57 (2010) pp. 284-316.

Hall, Rupert A., 'The Scholar and the Craftsman in the Scientific Revolution' in *Critical Problems in the History of Science* ed. Marshall Claggett (Madison: University of Wisconsin Press 1959), pp. 3-23.

Hallacker, Anja, 'On Angelic Bodies: Some Philosophical Discussions in the Seventeenth Century' Idem. pp. 201-14; Joad Raymond, *Milton's Angels: The Early Modern Imagination* (Oxford: Oxford University Press 2010).

Hamesse, Jacqueline (ed.), *Manuels, programmes de cours et techniques d'enseignement dans les universités médiévales* (Publication de l'Institut d'études médiévales, Luvain-la-Neuve 1994).

Hamlin, Christopher, *More than Hot. A Short History of Fever* (Baltimore, Maryland: John Hopkins University Press 2014).

Hardon, J. A., 'The Concept of Miracle from St. Augustine to Modern Apologetics' *Theological Studies*, 15 (1954).

Harline, Craig *Miracles at the Jesus Oak: Histories of the supernatural in Reformation Europe* (New Haven, Connecticut: Yale University Press, 2003).

Harrison, Peter 'Newtonian Science, Miracles and the Laws of Nature' in http://epublications.bond.edu.au/hss_pubs/55 (1995).

Haynes, Renee, 'Benedict XIV and the Miracles', *The Month* n. 226 (1966) pp. 211-221.

Id., *The Philosopher King: the humanist pope Benedict XIV* (London: Weidenfeld and Nicolson 1970).

Hayward, Anthony (ed.), *The Cult of the Saints in Late Antiquity and the Middle Ages: Essays on the Contribution of Peter Brown* (New York: Oxford University Press, 1999).

Hoffmann, Tobia, *A Companion to Angels in Medieval Philosophy* (Leiden-Boston: Brill 2012).

Holden, Thomas, 'Robert Boyle on Things Above Reason' in *British Journal for the History of Philosophy*, vol.15, no. 2, (2007), pp. 283-312.

Iribarren, Isabel and Martini, Lenz (eds), *Angels in Medieval Philosophical Inquiry: Their Function and Significance* (Aldershot-Burlington: Ashgate 2008).

Israel, Jonathan I., *Radical Enlightenment. Philosophy and the Making of Modernity 1650-1750* (Oxford-New York: Oxford University Press 2001).

Jacob, Margaret C. *The Radical Enlightenment. Pantheists, Freemasons, and Republicans* (London: Croom Helm 1981).

Johnson, James Howard and Hayward, Paul Antony (eds), *The Cult of Saints in Late Antiquity and the Early Middle Ages : Essays on the Contribution of Peter Brown* (Oxford: Oxford University Press 1999).

Jutte Robert (ed.), *Medical Pluralism. Past - Present - Future* (Stuttgart: Franz Steiner Verlag 2013).

Keitt, Andrew, 'Visionary Experience, Medical Discourse, and the Inquisition in Spain', in *Sixteenth Century Journal*, 26 (2005), pp. 77-96.

Id., 'Supernatural (Spain)' in Evonne Levy and Kenneth Mills (eds), *Lexikon of the Hispanic Baroque: Transatlantic Exchange and Transformation*, (Austin, Texas: University of Texas Press, 2006), pp. 329-32.

Keck, David, *Angels and Angelology in the Middle Ages* (Oxford-New York: Oxford University Press 1998).

Kleinberg Aviad M., 'Proving Sanctity: Solutions in the Later Middle Ages, in *Viator*, vol.20 (1989) pp. 183-206.

Kolb, Robert, *For all the Saints: Changing Perception of Martyrdom and Sainthood in Lutheran Reformation* (Macon GA: Mercer University Press 1987).

Lacey, Thomas A., *Natural, Miracle and Sin: a study of saint Augustine's conception of natural order* (London: Longman-Green 1916).

Le Goff, Jacques, *L'imaginaire médiéval: essais*, (Paris: Gallimard 1984).

Lloyd, Geoffrey E. R., 'History and Human Nature: Cross-cultural Universal and Culture relativities' in *Interdisciplinary Science Reviews* vol. 35, No. 3-4 (2010), pp. 201-14

de Lubac, Henri, S.J., *Augustinianism and Modern Theology*, trans. Lancelot Sheppard (London: Geoffrey Chapman, 1969).

Id., *The Mystery of the Supernatural* (New York: The Crossroad Publishing Company 1998).

Long, Pamela O. *Artisan/Practitioners and the Rise of the New Sciences, 1400-1600*, (Corvallis: Oregon State University Press 2011).

Mann, William E. 'Duns Scotus on Natural and Supernatural Knowledge of God' in Thomas Williams (eds), *The Cambridge Companion to Duns Scotus* (Cambridge: Cambridge University Press 2002) pp. 238-62.

Maffei, D., 'Il trattato di MG per la canonizzazione di S. Bernardino da Siena' in *Studi senesi* C (1998), suppl., pp. 580-603.

Manselli, Raoul, *Il secolo XII. Religione popolare ed eresia* (Milano: Jouvence 1984).

Markus, Robert A., *The End of Ancient Christianity* (Cambridge: Cambridge University Press 1990).

Id., 'Augustine. God and Nature' in A.H. Armstrong (eds) *Later Greek and Early Medieval Philosophy* (Cambridge: Cambridge University Press 2008) pp. 395-405.

Mariland, Hilary (ed. by), *The Art of Midwifery: Early Modern Midwives in Europe* (London-New York: Routledge 1993).

Maragi, Mario, *Psichiatria e guarigioni miracolose nel trattato di Prospero Lambertini sulla canonizzazione dei santi in Strenna bolognese*, XXVII 1977, pp. 195-216.

Marshall, Peter and Walsham, Alexandra (eds), *Angels in Early Modern World* (Cambridge: Cambridge University Press 2008).

Martin, J., *Saint Augustin*, (Paris: Felix Alean 1901).

McGuire, James E., 'Boyle's Conception of Nature' in *Journal of the History of Ideas*, vol.3, no.4, (1972), pp. 523-42.

McVaugh, Michael, 'The future of a disease: the impact of Galen's *De crisi* on medieval medical thought', in Katrin Bauer, Alexandra Fidora (eds) *Die mantischen Künste und die Epistemologie prognostischer Wissenschaften* (Cologne-Weimar-Vienna: Bohlau 2013), pp. 131-50.

McInerney, Ralph, *Aquinas and Analogy*, (Washington: The Catholic University of America Press 1996).

Meier-Oeser, Stephan 'Medieval, Renaissance, and Reformation Angels: A Comparison', in Isabel Iribarren, Martin Lenza (eds) *Angels in Medieval Philosophical Inquiry. Their Function and Significance* (Farnham-Burlington: Ashgate 2008).

Messbarger, Rebecca, John Gavitt Philip, Christopher M. S. Johns (eds), *Benedict XIV and the Enlightenment: art, science and spirituality* (Toronto: University of Toronto Press).

Michetti, Raimondo (ed.), *Notai miracoli e culto dei santi. Pubblicità e autenticazione del sacro tra XII e XV secolo*, Atti del Seminario internazionale. Roma 5-7 dicembre 2002 (Milan: Giuffrè 2004).

Middleton, William Edgar Knowles, 'Science in Rome, 1675-1700, and the Accademia Fisico-matematica of G. G. Ciampini', in *The British Journal for the History of Science*, 78 (1975), p. 138-154.

Miracles, prodiges et merveilles au Moyen Âge, actes du XXVe Congrès de la S.H.M.E.S., Orléans, juin 1994 (Paris : Publications de la Sorbonne, 1995).

Montagnes, Bernard O. P., *Doctrine of the Analogy of Being according to Thomas Aquinas*, (first. ed.1963) trans. by E. M. Macierowsky, (Louvain: Marquette university press 2008).

Modica, Elena, *Infetta dottrina. Inquisizione e quietismo nel Seicento* (Rome: Viella 2009).

Moore, Robert I., *The Formation of a Persecuting Society: Power and Deviance in Western Europe, 950-1250* (Oxford: Blackwell 1987).

Morelli, Emilia (ed.) *Le lettere di Benedetto XIV al card. de Tencin. Dai testi originali*, vol. II (Rome: Storia e letteratura 1965).

Mourant, John A. 'Augustine on miracles' *AugSt*, 4 (1973) pp. 103-27.

Neveu, Bruno 'Culture religieuse et aspirations réformistes à la cour de Innocent XI', in ID. *Erudition et religion au XVII et XVIII siècles* (Paris: Albin Michel 1994) pp. 235-276.

Niccolini, Fausto, 'Tre amici bolognesi di Mons. Celestino Galiani: Benedetto XIV, il card. Davia, Mons. Leprotti, lettere inedite'. R. Deputazione di storia patria per le province di Romagna *Atti e memorie* 20 (1930), pp. 87-138.

Novotny, Daniel. *Ens rationis from Suarez to Caramuel: a Study in Scholasticism of the Baroque Era*, (New York: Fordham University Press 2013).

Osbat, Luciano, *L'Inquisizione a Napoli. Il processo agli ateisti, 1688-1697*.(Rome: Edizioni di storia e letteratura 1974).

Osler, Margaret J., 'Mixing Metaphors: Science and Religion or Natural Philosophy and Theology in Early Modern Europe' in *History of Science*, 35 (1997), pp. 91-113.

Osler, Margaret J., *Reconfiguring the World. Nature, God, and Human Understanding from the Middle Ages to Early Modern Europe* (Baltimore, Maryland: The John Hopkins University Press 2010).

Panichi, Nicola, *I vincoli del disinganno. Per una nuova interpretazione di Montaigne* (Florence: Olschki, 2004).

Papa, Giovanni, *Le cause di canonizzazione nel primo periodo della congregazione dei Riti (1588-1634)* (Rome: Urbaniana University Press, 2001).

von Pastor, Ludwig, *The History of the Popes*, vol.35: *Benedict XIV (1740-1758)* (London: Routledge Kegan Paul 1949).

Pastore, Alessandro, *Il medico in tribunale: la perizia medica nella procedura penale di antico regime (XVI-XVIII)* (Bellinzona: Edizioni Casagrande 1998).

Pastore Alessandro and Rossi Giovanni (eds), *Paolo Zacchia. Alle origini della medicina legale(1584-1659)* (Milan: Franco Angeli 2008).

Pereira, Josè, *Suarez: Between Scholasticism and Modernity* (Marquette University Press 2008).

Parigi, Paolo *The Rationalisation of Miracles* (New York: Cambridge University Press, 2012).

Pasnau, Robert, 'Henry of Ghent and the Twilight of Divine Illumination' in *Review of Metaphysics* 49 (1995) pp. 49-75.

Id., *Thomas Aquinas on the Human Nature*, (Cambridge: Cambridge University Press 2002).

Piolanti, Antonio, (ed.), *Il soprannaturale* (Torino: Marietti, 1960).

Pomata, Gianna, *Contracting a Cure: Patients, Healers and the Law in Early Modern Bologna* (Baltimore, Maryland: John Hopkins University press 1998).

Id., 'Praxis Historialis: The Uses of *historia* in Early Modern Medicine' in Gianna Pomata, Nancy G. Siraisi (eds) *Historia Empiricism and Erudition in Early Modern Europe* (Cambridge, Massachusetts-London, England: The MIT Press 2005), pp. 105-46.

Id. 'Malpighi and the Holy Body: Medical Experts and Miraculous Evidence in Seventeenth-Century Italy', in *Renaissance Studies*, 21 (2007), pp. 568-86.

Id., 'The Devil's Advocate among the Physicians: What Prospero Lambertini Learned from Medical Sources', in R. Messbarger, C. M.S. Johns, P. Gavitt, *Benedict XIV and the Enlightenment: Art, Science and Spirituality* (Toronto: University Toronto Press 2016).

Poppi, Antonio, *Causalità e infinità nella scuola padovana dal 1480 al 1513* (Padua: Antenore 1966).

Porro, Pasquale, *Tommaso D'Aquino. Un profilo storico-filosofico* (Rome: Carocci 2012).

Predeal Magrini, Maria Vittoria (ed.), *Scienza, filosofia e religione tra '600 e '700 in Italia. Ricerche sui rapporti tra cultura italiana ed europea*, (Milan: Franco Angeli 1990).

Preti, Cesare, 'Giovanni Maria Lancisi' in *Dizionario biografico degli italiani* vol. 63 (Rome: Treccani 2004).

Proctor, Donald F., *A Brief History of Breathing Physiology* (New York: Dekker 1995).

Prodi, Paolo *The Papal Prince: One Body and Two Souls. The Papal Monarchy in Early Modern Europe*, trans. by Susan Haskins (Cambridge: Cambridge University Press 1987).

Prosperi, Adriano, *Tribunali della coscienza. Inquisitori, confessori, missionari* (Turin: Einaudi 1996).

Quinlan, Sean M. 'Apparent Death in Eighteenth-century France and England', *French History*, v. 9 (1995), pp. 27-47.

Rashdall, Hastings, *The Universities of Europe in the Middle Ages* (Oxford: Oxford University Press 1936)

Randi, Eugenio, *Il sovrano e l'orologiaio. Due immagini di Dio nel dibattito sulla 'potentia absoluta' fra XIII e XIV secolo* (Firenze: La Nuova Italia 1987).

Rey, Roselyne *The History of Pain*, trans. Louise Elliott Wallace (Cambridge, Massachusetts: Harvard University press 1998).

Rebellato, Elisa, *La fabbrica dei divieti: gli indici dei libri proibiti da Clemente VIII a Benedetto XIV* (Milan: Edizioni Sylvestre Bonnard 2008).

Ricci, Saverio, 'La censura de filosofi 'moderni' : vecchie regole, incostanti applicazioni, variegati effetti' in Paul Gilbert S.I. (ed.) *L'uomo moderno e la chiesa* Atti del congresso 16-19 novembre 2011 (Rome: Gregorian Biblical Press 2012).

Ricciardi Celsi, F., *Beatificazione e canonizzazione nella dottrina di Benedetto XIV*, (Rome: Aracne 2011).

Ricciardo, Salvatore 'Robert Boyle on God's 'experiments': Resurrection, Immortality and Mechanical Philosophy' in *Intellectual History Review* vol.25, no. 1 (2015) pp. 97-113

Riva, Franco, *Analogia e univocità in Tommaso de Vio 'Gaetano'* (Milan: Vita e pensiero 1996).

Romano, Antonella *La Contre-Réforme mathématique: constitution et diffusion d'une culture mathématique jésuite à la Renaissance (1540-1640)* (Rome: Ecole Française de Rome 1999).

Rosa, Mario, 'Benedetto XIV', in *Enciclopedia dei Papi* 3 vols (Rome: Istituto della Enciclopedia Italiana 2000) 3:446-61.

Id., *Benedetto XIV, "Dizionario del papato"* (Milano: Bompiani 1996) pp. 168-173.

Id., *Prospero Lambertini tra “regolata devozione” e mistica visionaria*, in *Finzione e santità tra medioevo ed età moderna*, ed. by Gabriella Zarri (Torino: Rosenberg & Sellier 1991) pp. 521-550.

Id., *Il tribunale della santità*, in *Diventare santo. Itinerari e riconoscimenti della santità tra libri, documenti e immagini*, ed. by Giovanni Morello, Ambrogio M. Piazzoni, Paolo Vian (Città del Vaticano: Biblioteca Apostolica Vaticana 1998) pp. 65-72.

Id., *Settecento religioso. Politica della ragione erelegione del cuore* (Venezia: Marsilio 1999).

Id., ‘The Catholic aufklärung in Italy’ in Ulrich L. Lehner, Michael O’Neill Printy (eds) *A companion to the Catholic Enlightenment in Europe* (Leiden-Boston: Brill 2010) pp. 215-250.

Id., *La curia romana nell’età moderna. Istituzioni, cultura, carriere* (Rome: Viella 2013).

Rosemann, Philipp W. *The Story of a Great Medieval Book: Peter Lombard’s Sentences* (Peterborough, Ontario: Broadview Press 2007).

Rossi, Paolo Aldo, *Metamorfosi dell’idea di natura e rivoluzione scientifica* (Genoa: Erga edizioni 1999).

Rossi, Paolo, *I filosofi e le macchine 1400-1700* (Milan: Feltrinelli 1962).

Rossi, *Philosophy, Technology and the Arts in Early Modern Europe*, Trans. by Salvator Attanasio. ed. by Benjamin Nelson (New York: Harper and Row 1970).

Sallmann, Jean-Michel, *Santi barocchi. Modelli di santità, pratiche devozionali e comportamenti religiosi nel regno di Napoli dal 1540 al 1750*, trans. by Carla Rabuffetti (Lecce: Argo 1996).

Rotta, Salvatore, ‘L’ accademia fisico-matematica Ciampiniana : un’iniziativa di Cristina?’, in W. Di Palma et al. (eds.), *Cristina di Svezia. Scienza ed alchimia nella Roma barocca* (Bari: Laterza 1990), p. 99-186.

Schaffer, Simon and Shapin, Steven, *Leviathan and the Air-Pump: Hobbes, Boyle , and the Experimental Life* (Princeton, New Jersey: Princeton University Press 1985).

Scribano, Emanuela, *Angeli e beati. Modelli di conoscenza da Tommaso a Spinoza* (Bari: Laterza 2006).

Shanahan Timothy, ‘God and Nature in the Thought of Robert Boyle’ in *Journal of the History of Philosophy* vol.26, no. 4, (1988), pp. 547-569.

Shapin, Steven *A Social History of True. Civility and Science in Seventeenth-Century England* (Chicago: University of Chicago Press 1994).

Shapiro, Barbara 'The Concept "Fact": Legal Origins and Cultural Diffusion' in *Albion: A Quarterly Journal Concerned with British Studies*, Vol. 26, No. 1 (Spring, 1994), pp. 1-25.

Id., *A culture of fact : England, 1550-1720* (Ithaca, N.Y.: Cornell University Press 1999).

Schwane, Joseph, *Histoire des dogmas*, trans. (from the German) by A. Degert (Paris: Beauchesne 1903-1904) 6 vols, p. 73.

Signorotto, Gianvittorio 'Lo squadrone volante. I cardinali liberi e la politica europea nella seconda metà del XVII secolo' in G. Signorotto and Maria Antonietta Visceglia (eds.) *La corte di Roma tra Cinque e Seicento teatro della politica europea* (Rome: Bulzoni 1998), pp. 93-138.

Sina, Mario, 'Robert Boyle e il problema dell''above reason'' in *Rivista di Filosofia Neo-Scolastica*, vol.65 no. 4 (1973), pp. 746-70.

Siraisi, Nancy, 'Signs and evidence: Autopsy and sanctity in late Sixteenth-century Italy', in *Medicine and the Italian Universities: 1250-1600* (Leiden: Brill 2001)

Seitz, Jonathan, *Witchcraft and Inquisition in Early Modern Venice*, (Cambridge: Cambridge University Press, 2011).

Skinner, Quentin 'Meaning and Understanding in the History of Ideas', *History and Theory*, 8 (1969), pp. 3-53.

Sluhovsky, Moshe, *Believe not every Spirit: Possession, Mysticism and Discernment in Early Modern Catholicism* (Chicago: Chicago University Press 2007).

Smith, Pamela H., *The Body of the Artisan: Art and Experience in the Scientific Revolution*. (Chicago: University of Chicago Press, 2004).

Smith, Julia M. H., 'Portable Christianity: Relics in the Medieval West (c. 700-1200)' *Proceedings of the British Academy*, vol.181 (2012), pp. 143–167.

Soergel, Philip M., *Miracles and the Protestant Imagination. The Evangelical Wonder Book in Reformation Germany* (Oxford - New York: Oxford University Press 2012).

Spiazzi, Raimondo, *Natura e Grazia. Fondamenti dell'antropologia cristiana secondo San Tommaso d'Aquino* (Bologna: Edizioni Studio Domenicano).

Sullivan, Robert E., *John Toland and the Deist controversy : a study in adaptations* (Cambridge, Mass. - London : Harvard University Press, 1982).

Taufer, Matteo, *Il mito di Tespesio nel De sera numinis vindicta di Plutarco* (Napoli: D'Auria, 2010).

Thonnard, François-Joseph, 'Les raisons séminales selon saint Augustin', in *Actes du XI e congrès international de philosophie* (Louvain : Nauwelaerts, 1953), t. XII, pp. 146-152.

Torrell, Jean-Pierre, *Saint Thomas Aquinas*, trans. by R. Royal (Washington DC: The Catholic University of America Press 1993).

Torrini, Maurizio, *Dopo Galileo. Una polemica scientifica 1684-1711* (Florence: Olschki 1979).

Toews, John E. 'Intellectual History after the Linguistic Turn: The Autonomy of Meaning and the irreducibility of Experience' in *The American Historical Review*, 92 (1987), pp. 897-907.

Ubal dini, Ugo (eds), *Christoph Clavius e l'attività scientifica dei Gesuiti nell'età di Galileo: atti del convegno internazionale (Chieti 28-30 aprile 1993)* (Rome: Bulzoni 1995).

Uyfanghe, Marc Van, 'Scepticisme doctrinal au seuil du Moyen Age? Les objections du diacre Pierre dans les Dialogues de Grégoire le Grand' in *Colloque Grégoire le Grand* (Paris: Cerf 1986), pp. 315-26.

Vailati, Enzo 'Leibniz and Clarke on Miracles' in *Journal of the History of Philosophy* vol. 33, no. 4, (1995), pp. 563-91.

Vauchez, André, *La sainteté en Occident aux derniers siècles du Moyen Âge (1198-1431)* (Rome, École française de Rome, 1981). English trans. *Sainthood in the Later Middle Ages* (Cambridge, 1997).

Vegetti, Mario *Il coltello e lo stilo* (Milan: Il Saggiatore, 1987).

Vegetti, Mario and Francesco Ademollo, *Incontro con Aristotele. Quindici lezioni* (Turin: Einaudi, 2016).

Verbeke, Gerard, *The Presence of Stoicism in Medieval Thought* (Washington, D.C.: The Catholic University of America Press, 1983).

Vidal, Fernando, 'Miracles, Science, and Testimony in Post-Tridentine Saint-Making', *Science in Context*, vol. 20, No. 3 (2007) pp. 481-508.

de Vooght, Paul, 'La notion philosophique du miracle chez saint Augustin dans le *De Trinitate* et le *Genesis ad litteram*, RThAM 10 (1938) pp. 317-47.

Walkers T.D., *Doctors, Folk Medicine and the Inquisition: The repression of Magical Healing in Portugal During the Enlightenment* (Leiden and Boston: Brill 2005).

White, Paul Dudley and Boursy, Alfred V., *Translation of De subitaneis mortibus (On sudden deaths)* (New York: St. Johns University Press).

Wigelsworth, Jeffrey R., Peter Lake, Anthony Milton, Jason Peacey, and Alexandra Gajda, *Deism in Enlightened England: Theology, politics and Newtonian public science* (Manchester: Manchester University Press 2009).

Wilson, Catherine, 'From Limits to Laws: The Construction of the Nomological Image of Nature in Early Modern Philosophy' in Lorraine Daston and Michael Stolleis (ed.) *Natural Law and Laws of Nature in Early Modern Europe. Jurisprudence, Theology, Moral and Natural Philosophy* (Farnham-Burlington: Ashgate 2008), pp. 13-28.

Wippel, John F., *Metaphysical Themes in Thomas Aquinas II*, (Washington: Catholic University of America Press 2007) pp. 172-93.

Watkins, C. S., *History and the Supernatural in Medieval England* (New York: Cambridge University Press, 2007).

Wright, Anthony D., *Early Modern Papacy. From the Council of Trent to the French Revolution 1564-1789* (London-harlow, Essex: Longman 2000).

Zanot, Massimiliano *Francesco Bordonì (1584-1671): teologo, inquisitore, storico* (Rome: Editrice Franciscanum 1999).

Zanotti, Andrea, 'Benedetto XIV tra ragione e santità: la beatificazione dei servi di Dio e la canonizzazione dei beati' in *Archivio giuridico* vol. CCXXIII (2003) fasc. 1,53.

Id., *Tra terra e cielo: Prospero Lambertini e i processi di beatificazione*, in *Prospero Lambertini. Pastore della sua città, pontefice della cristianità*, ed. by Andrea Zanotti (Bologna: Minerva 2004), pp. 233-253.

Ziegler, Joseph 'Practitioner and Saints: Medical Men in Canonization Process in the Thirteenth to the Fifteenth century' in *The society of social history of medicine*, 12 1999, pp. 191-225.

Zocca, Elena, 'Santo e santità' in *Nuovo Dizionario Patristico delle Antichità Cristiane*, vol.3, (Genoa-Milan: Marietti 2008), pp. 4697-708.

Id., 'Il miracolo nel cristianesimo dei primi secoli: realtà, segno discernimento' in M. Caffiero (ed.) *Magia, superstizione, religione. Una questione di confini* (Roma: Edizioni di storia e letteratura 2015) pp. 1-31.