

CONFLICTING NARRATIVES: HEALTH (DIS) INFORMATION IN EIGHTEENTH-CENTURY ITALY*

In 1756 a smallpox epidemic hit Tuscany, giving rise to a spate of disparate opinions about what action should be taken. A prominent Florentine clergyman, Gaetano Veraci, asserted that ‘those who inoculate are fifty-two times more pious than those who do not’.¹ Meanwhile, the Tuscan government engaged in a lengthy struggle to control narratives about diseases, stating that, in order to protect ‘freedom of trade’, it had to fight all ‘rumours’ and ‘groundless accusations’ concerning public health.²

These quotations taken from the mid eighteenth-century Tuscan context, along with a number of interconnected Italian case studies,³ are pertinent here for a variety of reasons: they illuminate the mechanisms of health information, but more importantly they are instrumental in showing how these very same dynamics were largely based on the construction of fictional narratives which often blurred the lines between information and disinformation. Thus, health matters are

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¹ *Tre consulti, fatti in difesa dell’innesto del vaiuolo da tre dottissimi teologi toscani viventi*, ed. Giovanni Calvi (Milan, 1762), 99.

² Archivio di Stato di Firenze (hereafter ASF), *Ufficiali di Sanità* (hereafter US), file 121.

³ The spatial approach in this chapter is based on the idea of connectedness well illustrated by Sanjay Subrahmanyam, *Three Ways to Be Alien: Travails and Encounters in the Early Modern World* (Waltham, 2011). The micro and global dimension are not in conflict, as underlined by Carlo Ginzburg ‘Microhistory and World History’, in J. H. Bentley, S. Subrahmanyam and M. E. Wiesner-Hanks (eds.), *The Cambridge World History: Vol. VI, Part II* (Cambridge, 2015); Jean-Paul Gohbrial (ed.), *Global History and Microhistory* (Past & Present Supplement no. 14, Oxford, 2019).

analyzed as case studies to understand the mechanisms of information.⁴ Previously, the debate on smallpox has been extensively studied from the point of view of intellectual history, and history of science and medicine: what is less frequent, is to insert such discourses in the wider field of the history of information. This is what I attempt in this article.

My principal argument is that disinformation is an inherent element of information itself. By disinformation, I mean intentionally constructed narratives, helpful in times of crisis and in governance, to pursue political goals both internally and internationally. This chapter thus highlights how information and disinformation were indeed two faces of the same coin. They were equally shaped by multiple agents, often resulting in multifaceted fictional narratives. To clarify this, it is necessary to combine historical methodologies with literary ones, investigating diverse sources such as those mentioned above (a priest's speech that was republished by a physician and the everyday transnational correspondence of Florentine magistracies), together with other documents such as well-known texts by Lady Montagu (credited with having introduced inoculation to England) and La Condamine, and the papers produced by health magistracies, medical treatises and consular reports. These sources are not judged according to predefined hierarchies: the prestige accorded to some historical agents on the basis of either their status in their lifetime, or their place in a historical or intellectual canon, must not induce us to assume that their initiatives were the most effective within the social system of their time.

Working on that basis, we can better understand why someone such as Monsignor Veraci felt compelled to assert the morality of inoculation, while others such as the Tuscan health magistrate stressed the economic side of disease control: they were all part of the same complex communication ecosystem in which health matters figured prominently. Indeed, public health was an omnipresent concern in early modern public discourse and policy making. This is why a focus on health and disease offers a good case study to explain how disinformation worked and may still work today. During the eighteenth century, smallpox held the spotlight. This virus, which raged throughout the world, sparked off a huge controversy on inoculation. As we shall see, neither side of the dispute was above manipulating data and fabricating stories to bolster their arguments. Whereas, one side inflated

⁴ On the development of public health in Italy from the point of view of history of medicine, see Giorgio Cosmacini, *Storia della medicina e dalla sanità in Italia* (Roma-Bari, 1987).

the numbers of successful inoculations, the other fabricated fanciful accounts of their deadly counter-effects.

It may seem self-evident, but it is important to stress that behind a piece of news there is always agency. To illuminate this agency, it is necessary to analyze the information with consideration of multiple scales and levels of analysis.⁵ Comprehensive textual analysis (the study of content, form, intertextuality and format) must also be undertaken to gain greater understanding of the anticipated audience of each of the sources.⁶ And before analyzing eighteenth-century textual strategies of disinformation, it is vital to take a step back and briefly illustrate the context in which these narratives were created. Hence, this chapter points out how early modern perception of diseases was as constant and universal threats, then it singles out some of the most revolutionary responses: that is, those of health magistracies. The establishment of these institutions throughout the Mediterranean region generated collaborative networks as well as competition that led to the spreading of disinformation, which was intentionally designed to damage rivals. In this context, smallpox became the subject of an especially wide debate, the extent of which will be briefly outlined to make clear the magnitude of this communication system, in which Italy played a crucial part. The chapter will then centre on specific instances: firstly, a highly successful text with Tuscan roots published in Milan by Giovanni Calvi (*Tre consulti*, 1762, reprinted in Pisa in 1763 and 1766), and then the management of health news in the port city of Livorno. This focus on details is needed in order to unveil the complex

⁵This contribution acknowledges the importance of studying networks and circulation in order to understand the rise of information, an approach exemplified by the works of Brendan Dooley (ed.), *The Dissemination of News and the Emergence of Contemporaneity in Early Modern Europe* (Farnham, 2010); Paula Findlen, *Empires of Knowledge: Scientific Networks in the Early Modern World* (London, 2018); Andrew Pettegree, *The Invention of News: How the World Came to Know About Itself* (New Haven, 2014); J. Raymond and N. Moxham (eds), *News Networks in Early Modern Europe* (Leiden and Boston, 2016). To better illuminate the construction of disinformation, it appears productive to integrate such an approach with a focus on specific agencies and places, as exemplified by Filippo De Vivo, 'Microhistories of Long-Distance Information: Space, Movement and Agency in the Early Modern News', in Jean-Paul Ghobrial (ed.), *Global History and Microhistory* (Past & Present Supplement no. 14, Oxford, 2019); and Jean-Paul Ghobrial, *The Whispers of Cities. Information Flows in Istanbul, London and Paris in the Age of William Trumbull* (Oxford, 2013).

⁶Roger Chartier, *The Author's Hand and the Printer's Mind* (Cambridge, 2014).

patterns and usages of disinformation. A close look at the everyday practices of Livorno health magistrates in the same period in which the inoculation debate evolved in the Italian peninsula, reveals the entwining of different spheres (intellectual, moral, religious, political and economic) and the leading role of established powers in shaping news and fictional narratives, which ultimately generated knowledge and decision-making practices.⁷

I
MANAGING HEALTH THREATS BETWEEN INFORMATION AND
DISINFORMATION

Permanent health institutions were created during the early modern age. A brief sketch of their history is not as eccentric as it may seem in a study about information, because one of their essential goals was precisely to manage news and data. They therefore represent an indispensable context in which to understand the impact of disinformation, along with its textuality. The first effective institutional reactions to the omnipresent fear of contagion were the *pro tempore* magistracies in charge of health affairs established in the Italian peninsula during the plague of 1347–51.⁸ The first permanent magistracy, however, was created in Venice in 1486, and soon Venetian rules about quarantines and special measures became norms with which ports were required to comply on pain of exclusion from commercial circuits.⁹ This was a remarkable institutional advancement: for the first time the need for health to be kept under constant surveillance was acknowledged.

⁷ On information and knowledge, see Peter Burke, *A Social History of Knowledge* (Cambridge, 2000). On information and knowledge as triggers of responses to crises: Domenico Cecere, Lorenza Gianfrancesco and Pasquale Palmieri (eds.), *Disaster Narratives in Early Modern Naples: Politics, Communications and Culture* (Rome, 2018); Domenico Cecere, “‘Subterranea conspiración’: Terremoti, comunicazione e politica nella monarchia di Carlo II”, *Studi storici*, iv (2019).

⁸ Carlo M. Cipolla, *Origine e sviluppo degli Uffici di Sanità in Italia*, in *Le tre rivoluzioni e altri saggi di storia economica e sociale* (Bologna, 1989).

⁹ For an overview, see Daniele Andreozzi, “‘L’anima del commercio è la salute’: Sanità, traffici, rischio e dominio sul mare in area alto adriatica (1700–1750)”, in Raffaella Salvemini (ed.), *Istituzioni e traffici nel Mediterraneo tra età antica e crescita moderna* (Naples, 2009); Alexandra Bamji, ‘Health Passes, Print and Public Health in Early Modern Europe’, *Social History of Medicine*, xxxii, 3 (2019); Livio Antonielli (ed.), *La polizia sanitaria: dall’emergenza alla gestione della quotidianità* (Soveria Mannelli, 2015).

Between the sixteenth and seventeenth centuries, institutions such as this multiplied. Their task was not to treat people, but to organize an efficient preventative system based on two cornerstones: legislation, and more importantly, management of information, namely the collecting and decoding of news, as well as the shaping of narratives. In these activities, officials often constructed and circulated disinformation as a tool of competition.

Having gathered the necessary information, health magistrates issued ordinances on matters such as inspections of people, goods and animals, quarantine protocols, the establishment of *cordons sanitaires*, and the construction of lazarets (quarantine centres).¹⁰ The information collected included both foreign news on real or presumed epidemics and internal news such as lists of ships (with manifests and itineraries) and registers of deaths in the city. Mortality bills were not a simple bureaucratic curiosity, but were used for political ends, being made public to scotch rumours, especially during epidemics.¹¹ Conservation of the population — intended as the preservation of collective strength and not as a precursor of individual health rights — became one of the central responsibilities of the state, hence the close attention it paid to precise information on demographic trends and the establishment of health control institutions to protect state resources, whether commercial networks or the population itself.

When Venice declined as a commercial power and no longer had dominion over health information, free ports emerged as places where health policies were developed and news managed, and first among these was Livorno.¹² Venice and Livorno were different kinds of port cities. The first had centuries of history and was the capital of an independent republic, the second was an artificial city, so to speak: a marshy village that the far-sighted Grand Duke had transformed into a free port in the 1590s, precipitating an astonishing development. When, during the eighteenth century, the equilibrium of the Mediterranean

¹⁰ Daniel Panzac, *Quarantaines et lazarets. L'Europe et la peste d'Orient XVII^e–XIX^e siècles* (Aix-en-Provence, 1986); Nelli Vanzan Marchini (ed.), *Rotte mediterranee e baluardi di sanità: Venezia e i lazaretti mediterranei* (Milan, 2004).

¹¹ Will Slauter, 'Periodicals and the Commercialization of Information in the Early Modern Era', in Ann Blair *et al.* (eds.), *Information: A Historical Companion* (Princeton, 2021), 134.

¹² On Livorno, see Corey Tazzara, *The Free Port of Livorno and the Transformation of the Mediterranean World 1574–1790* (Oxford, 2017); on Venice: Massimo Costantini, *Una Repubblica nata sul mare: navigazione e commercio a Venezia* (Venice, 2005).

changed, it was natural that this newer port should try to assume a leading role. Much like Venice, it was closely interconnected with the Mediterranean and the Atlantic through the conspicuous presence of foreign communities. It also enjoyed strong continental links through dynastic ties with the House of Habsburg, and was part of a dense network of centres such as the university city of Pavia, the twin free ports of Trieste and Fiume (Rijeka), and the capitals Milan and Vienna. Indeed, only by bearing in mind Livorno's inclusion in the Habsburg orbit can we understand its health policies, for through its Viennese court a reconfiguration of mercantilist theories on population, known as Cameralism, occurred.¹³ Developed as a theory and academic discipline, Cameralism assigned to the state the exercise of good governance as a means of ensuring the happiness of its subjects. One of the theory's pillars was the idea that population growth was a positive thing, and as such should to be favoured in every way; additionally, unlike in mercantilism, the wellbeing of subjects was considered of paramount importance in itself. Administration or, as it was then called, 'policing' (*polizei*) was understood as a science aimed at controlling society in all its aspects, including health. A subsequent systematization of 'medical police' (in many ways the precursor of our modern concept of public health) was then established by Johann Peter Frank, professor at the University of Pavia, in his treatise *System einer vollständigen medicinischen Polizey* (Vienna, 1779–1827). These developments were influenced by health policy experimentation in the Habsburg free ports, and the Tuscan contribution to the smallpox debate.

The connection between ports and health institutions is intuitive: port cities, the most exposed to contagion, were the first to develop protection protocols. It was unthinkable to risk ports being considered unsafe and thereby being excluded from global trade. The foremost way of preventing this was the assiduous control of goods and people, and the second was the control of information, something which the leaders of both Venice and Livorno understood well. If Venice had gained the reputation of being Europe's first line of defence against

¹³ Keith Tribe, *Governing Economy: The Reformation of German Economic Discourse (1750–1840)* (Cambridge, 1988); Marte Seppel and Keith Tribe (eds.), *Cameralism in Practice: State Administration and Economy in Early Modern Europe* (Woodbridge, 2017). On Cameralism in Livorno: C. Tazzara, *The Free Port of Livorno*, 203; Sophus Reinert, 'Another Grand Tour: Cameralism and Antiphysiocracy in Tuscany, Baden, and Denmark-Norway', in Jürgen Backhaus (ed.), *Physiocrats, Antiphysiocracy and Pfeiffer* (New York, 2011).

the Levantine epidemics, at the beginning of the eighteenth century Livorno's standing seemed more uncertain because of disinformation fuelled by Genoa during the plague of Marseille of 1720–2.¹⁴ As recounted by the French consul in Livorno, to deflect any suspicion of Genoa's involvement in spreading the contagion and to profit from a trade blockade, the Genoese consuls started the rumour that the plague had in fact been caused by slack control procedures in Livorno. In Marseille, a city devastated by the plague, the health magistrate then picked up this thread, hoping to avoid any blame and to have the port quickly re-admitted into transnational circuits.¹⁵ In the following decades, however, the consolidation of Livorno as a commercial centre of primary importance meant that its influence extended to information management as well. Starting from the 1750s, it was in this Tuscan free port that new lazarets were set up, new health regulations began to be developed, and a widespread network of exchange and control of health news was created. These processes were not, however, introduced in a linear, top-down way, but were the result of negotiation.¹⁶ Health legislation, the manipulation of information, and the construction of fictional narratives all derived from clashes and compromises between different social concerns. Economic interests were central in shaping responses to epidemic threats, but they had to coexist with political, moral and social imperatives.

Alongside institutional and political changes, another factor to be mindful of in order to grasp the growing interest in the control of health information was fear. Dwelling on anxieties here is a necessary step because it allows us to understand why and how people believed in disinformation: not being able to find or trust other answers, they resorted to what met their cultural and material needs. Fear was pervasive and derived from ignorance concerning the mechanisms of contagion. Owing to the inability of medicine to provide convincing answers and effective cures, numerous theories arose that assigned a leading role either to God or to the devil. When the protagonist was the devil,

¹⁴ On this already well-known case study, see Guillaume Calafat, 'La contagion des rumeurs: Information consulaire, santé et rivalité commerciale', in Silvia Marzagalli (ed.), *Les consuls en Méditerranée, agents d'information (XVI^e–XX^e siècle)* (Paris, 2015).

¹⁵ Nicolas Pichatty de Croissainte, *Journal abrégé de ce qui s'est passé en la ville de Marseille depuis qu'elle est affligée de la contagion* (Paris, 1721).

¹⁶ Daniele Andreozzi, 'The Barbican: The Plague of Split and the Strategy of Defence in the Adriatic Area between the Venetian Territories and the Ottoman Empire (Eighteenth Century)', *Popolazione e Storia*, ii (2105), 116–17.

people were often accused of being infectors (*untori*). For example, during the seventeenth century a theory of manufactured plague — that is, a disease caused deliberately by devil worshippers — circulated aggressively throughout the Italian regions.¹⁷ The case of the 1630 Milanese plague is well known. Powerless in the face of the spread of the infection, the city authorities consciously decided to follow up on rumours which they themselves deemed unfounded, by publishing a series of bans that referenced the possibility that the plague had been caused by infectors, and they invited citizens to report suspicious behaviour. The story ended with the execution of two (innocent) people and the erection of the so-called *Infamous Column*, as a public warning of the destiny reserved for future *untori*. This was an effective false narrative which worked as a stabilizing force for the Spanish occupants in a period of turmoil. Less known is that the Milanese affair even gave rise to fanciful tales (circulated as far as Spain) of the devil himself arriving in Milan by coach and spreading the plague with the help of his worshippers. This unleashed a wave of collective fury in Northern Italy with hunts for infectors from which, significantly, the two main ports of the area were exempt. Genoa and Venice had studied at length protocols for containing the contagion and protecting trade in practical, rational ways, and therefore the idea of plague willingly caused by infectors found little credence among their citizens.

Fear appears to be a key component in the working of information mechanisms. In Milan it was fear, along with ineffective responses, that inspired legislation largely based on news manipulation. Old minoritarian theories circulating since the sixteenth century were revived and exploited in public documents reprinted several times during the months in which the contagion raged. Disinformation could thus end up being so widely accepted that it led to the scapegoating and execution of people, as illustrated by the 1630 Milanese case of *The Infamous Column* later debunked by Pietro Verri (1760) and Alessandro Manzoni (1840). Edicts — obviously attempting to seem neutral to the subjects — could become vehicles for the dissemination of falsehoods that were destined to have vast repercussions: their short and concise nature, the capillarity of their circulation and their continuous repetition made them effective tools of communication.¹⁸

¹⁷ Paolo Preto, *Epidemia, paura e politica nell'Italia moderna* (Rome, 1988).

¹⁸ Massimo Rospocher and Emilie Delivré, 'La legge e la piazza: Comunicare la legge negli spazi pubblici dell'Europa moderna', in Christoph Cornelissen and Paolo Pombeni (eds.), *Spazi politici, società e individuo: le tensioni del moderno* (Bologna, 2016).

What this overview seeks to make plain is that the institutions created to control epidemics also had the authority to decide what announcements were made about them, and thus could originate different perceptions and competing narratives. In a similar manner, as the plague threat faded and the new global health problem of smallpox came to the fore, information and disinformation continued to be intertwined in an increasingly public struggle.

II

A GLOBAL ISSUE, A UNIVERSAL RESPONSE: SMALLPOX AND INOCULATION

By the end of the seventeenth century, smallpox had replaced plague as the foremost pestilence. That it was becoming more lethal was not just a perception, for between 1647 and 1700 it had caused the deaths of 210 persons per 100,000 in Europe and the death toll increased to 300 between 1701 and 1800.¹⁹ Therefore, Europeans were eager to know how the disease was controlled in Asia, where it was said to be endemic, but less deadly. Merchants and diplomats played a fundamental role in devising a global response to the disease by contributing to a more systematic collection of information, and by stimulating subsequent scientific and moral reflections.

The first remedy was inoculation (or grafting). As is well known, this solution was popularized by Lady Mary Wortley Montagu, wife of the British Ambassador in Constantinople, with the support of the royal physicians Hans Sloane and Charles Maitland.²⁰ In 1717, she triumphantly wrote to a friend that in the Ottoman Empire the much-feared smallpox was no longer a threat, since the people were

¹⁹ Donald R. Hopkins, *The Greatest Killer: Smallpox in History* (Chicago, 2002), 41–2.

²⁰ It is worth noting that, even if the story of Lady Montagu reverberated more than any other, not everybody learned about inoculation by that means, for many different channels spread such knowledge. In 1706, in a Boston struck by the disease, the Revd Cotton Mather learned about inoculation from African slaves. See Shawn Buhr, 'To Inoculate or Not to Inoculate?: The Debate and the Smallpox Epidemic of Boston in 1721', *Constructing the Past*, i (2000), 61–7. Not long afterwards reports announced that in 1728 Carmelites practised inoculation in Brazil and that Jesuits had started a large-scale application of it in the Bahia area around 1743. A prominent role in studying the treatment from a medical point of view was played by the Venetian physicians Emanuele Timoni and Jacopo Pilarino. See Jacopi Pilarini, *Nova et tuta excitandi variolae per transplantationem methodus* (Venice, 1715).

constantly immunized through a simple operation. Indeed, a few months later Lady Montagu had her son inoculated and, after returning to London in 1721, also had her daughter treated: as far as we know, that was the first professional and widely advertised inoculation to take place on English soil. What is less known, however, is that inoculation was not widely accepted in the immediate aftermath of its European reception: fewer than nine hundred people had been inoculated in Great Britain by the 1780s, and many remained unconvinced of the technique's efficacy. Stories about deaths from inoculation were widespread, a controversial case being that of the three-year-old son of the Earl of Sunderland, who had allegedly been killed by inoculation. To counteract such claims, the prominent physician, James Jurin, applied a mathematical approach to the issue, and concluded that during epidemics one out of five or six infected people died, while only one out of the ninety-one inoculated ones did. Still, the controversy dragged on. A London apothecary, Francis Howgrave, making a direct attack on Jurin and Maitland (who had inoculated the son of the Earl of Sunderland), created a different storyline affirming that the death of the child was indeed suspicious. His death certificate, indicating the cause of death to be 'head in the water' and 'not smallpox', was signed by five apothecaries, rather than physicians: in the author's opinion, no physician would sign such a clear fabrication designed to 'recover the reputation they had lost'.²¹

The amassing of contrasting news on inoculation — while the disease continued to rage and ravage — reached a pinnacle between the 1750s and the 1760s. A series of public inoculations had been carried out worldwide, but the treatment was yet to become widespread among the population. Huge credit in making it a truly public topic is due to Charles-Marie de La Condamine, member of the Parisian Académie Royale des Sciences and collaborator on the *Encyclopédie*, who in 1754 pointed out that nearly a million deaths could have been avoided if inoculation had been generally applied since its arrival in Europe at the turn of the century. Following in Jurin's steps and with the help of Daniel Bernoulli and Jean d'Alembert, he based his argumentation on statistical data. He publicly reported his conclusions and printed them in his *Mémoire*, the first edition of which appeared, with

²¹ Francis Howgrave, *Reasons Against Inoculation of the Smallpox* (London, 1724), 50–3. Also in the middle of the same century the 'son of the Earl of Sunderland' (following Howgrave's reconstruction) was used as a symbol of the dangers posed by inoculation. J. Kirkpatrick, *The Analysis of Inoculation* (London, 1753), 274–5.

special permission given by the Académie to hasten publication, in a small, inexpensive format.²² La Condamine's aim was to reach, not only his colleagues, but also the general public, for which reason the book was didactic: to each short objection, he provided a clear and reassuring answer; footnotes were kept to a bare minimum, and references were made only to other pro-inoculation works. Its impact was immediate. Endorsements, reprints and translations soon multiplied, followed by rebuttals: a notable example of the latter being that of Andrew Cantwell, head of the Faculty of Medicine in Paris.²³

After 1754, inoculation became a much-debated topic in France. Publications of all kinds — polemical pamphlets, medical treatises, moral and philosophical texts, poems, statistical analyses and countless articles in gazettes — flooded the market.²⁴ Inoculation and smallpox were also talking points in all the meeting places of *ancien régime* society: salons, cafés, masonic lodges and the Royal Court. As Angelo Gatti pointed out in 1763, when inoculation was banned by the French parliament: 'in Paris there are perhaps fewer inoculations made than pamphlets for or against inoculation printed'.²⁵

Even the brothers Pietro and Alessandro Verri, among the leading exponents of the Enlightenment, realized that the illiterate were not moved and persuaded by statistics and medical theories. In the renowned Milanese magazine *Il Caffè*, they explained that the messages addressed to the 'multitude' were successful when they stirred up emotions. It is therefore no wonder that anti-inoculation discourses that used heartbreaking stories became powerful fictional narratives, producing a huge impact on the public. In substance, there was a profound distance between the communication styles of the detractors and supporters of inoculation: while the former aimed at an immediate emotional effect, the latter sought to prevail using a technical language and scientific arguments. To put it in the words used by the Verri

²² Charles-Marie de La Condamine, *Mémoire sur l'inoculation de la petite vérole* (Paris, 1754)

²³ Andrew Cantwell, *Dissertation sur l'inoculation, pour servir de réponse à celle de M. de La Condamine* (Paris, 1755).

²⁴ Jean-Baptiste Fressoz, 'La médecine et le "tribunal du public" au XVIII^e siècle', *Hermès: La Revue*, iii (2015), 21–30.

²⁵ At the time Gatti, physician and Professor at the University of Pisa, was well known for having brought inoculation to Tuscany, after having learned about it in Livorno. In 1763 he became royal physician to Louis XV of France and in 1779 to Ferdinand I of Naples: he championed inoculation in both roles.

brothers, the pro-inoculation thinkers offered ‘reasoning’ to people willing to follow only the ‘path of the heart’ and not that of the mind.²⁶

Given this context, all the major periodicals echoed stories about the treatment, but a given event had to be particularly extraordinary to really catch the public’s eye. For instance, in 1767 the debate was dominated by the smallpox relapse suffered by the Duchess of Boufflers, who had been inoculated by Gatti.²⁷ This was an extremely rare occurrence, which could have had negative effects by serving the detractors’ cause. At the time civic authorities in Paris had prohibited inoculation, and so very few of its citizens had by then been inoculated, and more attention was being paid to exceptional cases than to sound scientific reasoning. Nevertheless, in the event the Boufflers case rather acted as a spur to further debate. La Condamine travelled extensively abroad, stopping at length in Tuscany, where the presence of a vast foreign community (in particular in Florence and Livorno) had favoured an early circulation of news about inoculation. In 1725 the British consul, Thomas Dereham, translated the *Relation* by Maitland and thereby made Tuscany, along with Venice, the only Italian area to be well informed about the treatment.²⁸ Hence, when La Condamine landed in Livorno, he was able to write: ‘In 1755 I found out that inoculation was already established in Livorno, since British merchants had brought it there long before’.²⁹ The practice, however, was then confined to foreign communities and it was La Condamine’s tour and a smallpox epidemic which flared up in 1756 that turned inoculation into a mainstream issue. In Livorno, La Condamine met with local intellectuals and administrators such as Filippo Venuti, Giovanni Baldasseroni, and the physicians, Giovanni Gentili, Angelo Gatti and Giuseppe Cei, and after his visit those notables promoted a new gazette, the *Magazzino letterario di Livorno*, in which they published the first Italian translation of La Condamine’s *Mémoire*. Baldasseroni, who was the Chancellor of

²⁶ *Caffè o sia Brevi e Vari Discorsi già Distribuiti in Vari Fogli Periodici: Seconda edizione. Tomo primo* (Venice, 1766), 288, 290–1, 294. On emotional communication and its eighteenth-century success, see the recent Pasquale Palmieri, *L’eroe criminale: Giustizia, politica e comunicazione nel XVIII secolo* (Bologna, 2022), 77–9.

²⁷ Guillaume-Joséph de L’Epine, *Supplément au rapport fait a la faculté de médecine de Paris, contra l’inoculation de la petite vérole* (Paris, 1767), 69–83.

²⁸ Charles Maitland, *Relazione dell’innestare il vaiolo* (Florence, 1725).

²⁹ Charles-Marie de La Condamine, *Seconda memoria sull’inoculazione del vajuolo contenente la sua storia dall’anno 1754. Letta nell’adunanza pubblica dell’Accademia reale delle scienze di Parigi il 15 novemb. 1758* (Livorno, 1759), 23.

Health and Customs, had his son inoculated in 1757. At the beginning of the century, Venice had been the gateway of information about epidemics and about the use of inoculation in the Levant. Now, halfway through the century, Livorno was emerging as a new centre with the role of gathering and spreading health news and of initiating a new Italian debate. Following the different paths, along which knowledge about inoculation was propagated, provides a glimpse of a complex information ecosystem in which the different actors used every means, from data inflation to blatant lies, to further their own ends. In the next section I illustrate this by bringing into focus specific places and sources.

III

'TO FREE FROM FEAR OF INOCULATION': CALVI'S *TRE CONSULTI* (1762)

After La Condamine's visit to Tuscany and the Italian edition of his *Mémoire*, a series of pamphlets on inoculation appeared in the region. By following the routes of three of them — written respectively by Francesco Raimondo Adami, Giovanni Lorenzo Berti and Gaetano Veraci—it is possible to shed further light on the construction of (dis)information. The three texts recount a wide range of stories of inoculations and epidemics happening worldwide, which reveal state-of-the-art knowledge (and its distortion) on smallpox in a relatively peripheral, but well-connected area. This was probably also what Giovanni Calvi, a Lombard physician, was well aware of when he decided to publish the texts together as a compendium, the aforementioned *Tre Consulti*.³⁰ This bulk of knowledge was not mere erudition, for it served Calvi as evidence when pleading the case in favour of inoculation. The result was a book that collected sixty years of data, rumours, opinions and stories, had an encyclopaedic character and made already existing materials available, which Calvi then enriched with a new interpretation in the preface, and the notes which made reference to the most prominent European works that argued against or for inoculation. Calvi updated La Condamine's work by inserting new examples and by enlarging the data-set about Italy. By the 1750s, the exponential growth of printed texts, along with a rise in literacy and fall in the cost of paper, resulted in an overwhelming communication labyrinth created by an overload

³⁰ Francesco Barbieri, 'Giovanni Calvi', in *Dizionario Biografico degli Italiani*, vol. xvii (Rome, 1974).

of knowledge.³¹ therefore, notes such as the ones by Calvi were also devised to help orientate the public amidst a mass of information.

Although he shared La Condamine's objectives and his work had similar content, Calvi's collection was aimed at a public of learned readers; it was an expensive work, which presented illuminated initials and a series of print privileges issued by ecclesiastical and state authorities, and by the College of Physicians of Milan. Calvi dedicated it to Cardinal Ignazio Crivelli, who had been apostolic nuncio in Vienna (1754–60) and who, back in Italy, maintained such close links with the Viennese court and Karl Joseph von Firmian (the Austrian plenipotentiary in Milan), that he was appointed protector of the prestigious Collegio Ghislieri, a college for particularly talented university students in Pavia, of which the Empress Maria Theresa was patron. Calvi's aim was to legitimize inoculation (and his work) primarily among fellow scholars, be they physicians or theologians.

The texts in the *Tre consulti* had been written at the request of the Tuscan government and church hierarchy, allied in an endeavour to convince the population to accept inoculation. Although all part of the same political and cultural operation, they had followed independent publication paths. When a violent smallpox epidemic broke out in Livorno in 1756 and then spread to the whole Grand Duchy, the Regency took a close interest in the matter. Count Emmanuel de Richecourt, President of the State Council, ordered Giovanni Targioni Tozzetti, court physician and consultant to the health magistrate, to start inoculating in Florence, and around the same time, he instructed Berti to write 'a moral theological opinion about being able to inoculate and being inoculated with a clear conscience'.³² A leading theologian, Berti belonged to the Augustinian order and was professor of Ecclesiastical History at the University of Pisa, and some sources say he was also urged to intervene in the debate by Cardinal Neri Corsini, who was very close to Cardinal Crivelli. Berti's text was not published, but it did circulate widely as a manuscript and prompted other interventions, such as that of Adami. Born in Livorno, Adami was a Servite friar, close to Cardinal Corsini, and a colleague of Berti at the University of Pisa, where he held the chair of Dogmatic Theology. His text appeared in the widely read *Giornale de Letterati* in 1758. By

³¹ On this point see Ann M. Blair, *Too Much to Know: Managing Scholarly Information Before the Modern Age* (New Haven and London, 2010).

³² Biblioteca Nazionale di Firenze, *Mss. Targioni Tozzetti*, str. 290, also quoted in Bianca Fadda, *L'innesto del vaiolo* (Milan, 1983), 65.

contrast, Veraci's text (publicly recited in Florence in 1756) originated from the Regency's actions and Tozzetti's experimental inoculations. As prior of the church of San Miniato Tra le Torri in Florence, Veraci was well known in the cultural milieu of the capital.

The three texts were all straightforward endorsements of inoculation and all attempt to demonstrate its medical effectiveness and moral unquestionability. Written in the aftermath of a disruptive surge of smallpox and, at the solicitation of the authorities, they were part of a local response to a universal issue. Thus, faced with the double problem of 'rarity of information' and distrust of inoculation in Lombardy, Calvi republished the Tuscan texts.³³ Born in Cremona, he had completed his medical education in Tuscany under Antonio Cocchi, a renowned professor at the University of Pisa and fellow of the Royal Society and, after his return to Lombardy, he maintained close links with the Tuscan cultural environment. While earning a reputation as a physician in Milan, he became associated with Firmian, who was himself a supporter of inoculation, so it appears that Calvi's initiative was part of a more comprehensive plan to introduce inoculation in Habsburg-controlled areas. What is certain is that he was rewarded in 1762 by being promoted to professor of Theoretical Medicine at the University of Pisa.

In the preface, the physician explained how he had felt compelled to republish the texts in the hope they would 'free delicate consciences from fear of inoculation'.³⁴ He wanted to enlighten theologians and physicians who still opposed the treatment by remedying the lack of reliable information, which he thought was the main cause of the fear and resistance. To persuade his public, Calvi highlighted the fact that smallpox was indeed a global problem, but that a possible universal solution had been discovered for it. From the start he made it clear that the debate was not an Italian one, nor even a European one, but rather was connected to areas that were very distant both geographically and culturally. The Tuscan texts and Calvi's notes, not only gave an overview of the major works on inoculation, but also collected data from all over the world. Calvi (exaggeratedly) wrote about over two hundred thousand inoculations being made in Great Britain and 'millions' in China, India, Turkey and Africa, ultimately engaging in a version of disinformation through his use of hyperbole.³⁵ He described the spread

³³ *Tre consulti*, 3.

³⁴ *Ibid.*, 6.

³⁵ See Emily Teo, 'Hyperbole in Early Modern Missionary Travel Accounts of China', in this volume.

of the treatment from Algiers to the rest of the Ottoman Empire and also the Chinese practice of inoculation, as described by missionaries who disembarked in Livorno. The flow of information generated by decades of transnational debate had motivated Calvi to study all available sources and then publicly defend inoculation. Naturally, he had also been influenced by the local situation. In 1761 Bernardino Moscati had made an attempt to introduce inoculation in Milan, but had been heavily criticized. Now Calvi aimed, not only at informing people in Lombardy and at engaging his readers in a common fight for the ‘public good’, but also at participating himself in the transnational debate.³⁶ He claimed authenticity by basing his arguments, not only on numbers and on a recollection of global examples, but also on the authority of institutions such as the Sorbonne in Paris, the Royal Society of London, the Royal Colleges of Medicine in London and Nancy, the Inquisition in Venice and Avignon and the Vatican Secretariat of State (directed by Cardinal Valenti). That ecclesiastical hierarchies were involved in gathering information about inoculation (and subsequently defending it) is evident also from activity in Tuscany. Cardinal Valenti was a staunch defender of inoculation — he even had his whole household inoculated — and as Secretary of State enjoyed a unique position in the management of information. In fact, he received reports from apostolic nuncios who provided him with details, not only about matters of faith, but also about the circulation of goods and people, and the health situation, particularly in port cities.

Aside from Calvi’s preface, a close reading of the *Tre Consulti* texts provides further examples which give a clear idea of the communication strategies deployed. The data collected across the texts ranges from Europe to Asia and America. Berti described the arrival of inoculation in Portuguese colonies of South America in 1728–9, where it was first attempted in Pará, Brazil, by a Carmelite missionary who had obtained only a ‘superficial knowledge’ of the method from ‘European gazettes’.³⁷ As for strategies, Berti also mixed authoritative examples and numbers. He mentioned the illustrious case of the British royal family and listed a series of large-scale inoculations that took place in Great Britain, China and Peru. Unlike Calvi in his preface, he also made recourse to theology, justifying inoculation at a moral and religious level by quoting Augustine, Thomas Aquinas, Anthony of Padua

³⁶ *Tre consulti*, 6.

³⁷ *Ibid.*, 34.

and Matthew's Gospel. Nevertheless, he acknowledged the pre-eminence of medical and learned opinions.

The same strategies are found in Veraci's and Adami's texts: a utilization of 'the weapons of religion' combined with data.³⁸ The latter text is the refutation of an anonymous French pamphlet against inoculation, published in 1756 as an attack on La Condamine.³⁹ Adami declared that the pamphlet was based on 'fake news' in that the anonymous author condemned the treatment because it was impious, and practised by barbarians and heretics: the universality of inoculation was seen as detrimental.⁴⁰ Adami acknowledged that the inoculation had indeed arrived in Europe from the Black Sea, but, using a metaphor, he affirmed that it was not dissimilar to 'the goods which arrive in our ports'.⁴¹ In short, it was not to be regarded as a heretical danger, but as a positive outcome of the multiplied global exchanges. Inoculation, he concluded, had a foreign origin, but nonetheless was a positive novelty like all the foreign goods craved by Europeans.⁴²

In the texts there are also examples of conflicting narratives. As Calvi put it, 'the enemies of inoculation tried to cover the truth with every means, also through deception'.⁴³ In their attempt to dispel what they reckoned to be disinformation fabricated by the anti-inoculators, however, Calvi and the three theologians paradoxically further spread it. In fact, they quoted large passages of the fictional narratives of death and sorrow produced by their adversaries, and then presented to the readers their refutation. In doing so, they did not realize that their strategy — as we can easily imagine — could have counter-productive effects, since it multiplied the channels through which that emotional and more appealing disinformation could spread. A particularly 'viral' case documented by the *Tre Consulti* was a French one, which alleged that a doctor of Clermont inoculated his son and that the treatment resulted in his death. However, the editors of the Parisian *Gazette* conducted a thorough investigation and, in June 1761, published a scoop. The doctor and his son had long been dead and, not only had the child

³⁸ *Ibid.*, 93.

³⁹ *L'inoculation de la petite vérole déferée à l'Église et aux magistrats* (Paris, 1756).

⁴⁰ *Tre consulti*, quotation at 105.

⁴¹ *Ibid.*, 108.

⁴² On the debates surrounding global goods, see Rudi Matthee, 'Exotic Substances: The Introduction and Global Spread of Tobacco, Coffee, Cocoa, Tea, and Distilled Liquor, Sixteenth to Eighteenth Centuries', in Roy Porter and Mikulas Teich (eds.), *Drugs and Narcotics in History* (Cambridge, 1995).

⁴³ *Tre consulti*, 42.

never been inoculated, but no inoculation at all had been carried out in Clermont. Immediately the news was picked up and published in Venice and Florence. Calvi discussed this specific case at length in an attempt to offer his readers a clear example of the emotional stories that should not be trusted uncritically.

To sum up, what might have been a medical debate during the 1710s became by the mid eighteenth century a political matter, with leaders — such as Samul-August Tissot in France, Antonio Genovesi in the Kingdom of Naples and Cesare Beccaria in Austrian Lombardy — invoking a law to enforce inoculation. Nevertheless, many still advocated its prohibition. The medical and political debate overlapped with a moral one. Was it right to artificially introduce disease in healthy people? Data and scientific experiments soon seemed incapable of mitigating people's fears. La Condamine had maintained that the most valid argument in favour of inoculation would depend on statistics and probability, but his scientifically based campaign was not equal to the task, and inoculation was banned in Paris. It is therefore no surprise that the Tuscan government requested clergymen — habituated to persuading and educating the people in their sermons and lectures — to intervene, and that Calvi decided to republish their works. The three texts give clear evidence that both sides were willing to manipulate information, while resorting to different tactics. Those in favour of inoculation based their arguments first on scientific data (namely statistics) and a review of successful experiments from all over the world, secondly on authoritative opinions of scientists, theologians and intellectuals, and thirdly on the testimonials of (mainly royal) celebrities. For their part, anti-inoculators invented tragic stories in which emotion and religion were key ingredients. Usually, such stories were refuted by gazettes, but we might say that the damage was already done, since inoculation and eventually vaccination remained, and still remain, controversial practices: smallpox itself was not eradicated until 1980.⁴⁴ As we can gather from the textual analysis of the sources, when they constructed their disinformation, the anti-inoculators made it more engaging than 'facts'. By speaking the language of emotion, their fictions met the expectations of a vast audience, who further shared stories in which they easily believed, and with which they identified. Thus, anti-inoculation disinformation

⁴⁴ Erez Manela, 'The Politics of Smallpox Eradication', in J. R. McNeill and K. Pomeranz (ed.), *The Cambridge World History: Vol. VII, Part I* (Cambridge, 2015).

spread virally as if it were itself an epidemic. Although they too exaggerated to catch the public's attention, the pro-inoculators' data was by contrast a sort of foreign language. Based on scientific methods, pro-inoculation reasonings did not stir up emotions and sounded baffling to a still largely illiterate public, which was — unlike with the emotive disinformation — not then stimulated to engage with it and to disseminate it. This is why the Tuscan government attempted a sort of compromise by asking the three theologians to intervene publicly, in the hope that they could put feelings and numbers together, as exemplified by the quotation from Veraci's text cited at the beginning of this article.

With regard to counteracting disinformation and managing information, the importance of port cities also emerges. Calvi himself acknowledged the pivotal role played by Livorno. Previous scholarship has referred to a Tuscan origin of the Italian debate on inoculation, and traced it back to the Galilean scientific tradition of the University of Pisa, overlooking the nearby port and its significant impact on this history. Moreover, the intellectual side of things certainly cannot be ignored, but it is also undeniable that La Condamine went first to Livorno, and there found fertile ground for his ideas in practical steps taken by the ruling powers: there, the prevention of infectious diseases had long been regarded as a crucial matter, and thus the first steps to practise inoculation were taken, igniting the Italian debate. For these same reasons, the Tuscan authorities well understood how important it was to control narratives.

IV

CONTROLLING EPIDEMICS AND NARRATIVES IN LIVORNO

The analysis of the *Tre Consulti* leaves several questions open. In some ways, the publication of this text represents the recapitulative stage of a half-century-long public clash. But in what broader communicative and informative frame of reference were smallpox narratives inserted? How were they received and what impact did they have on society? Did they result in concrete political actions? The focus on intellectual transmission, or on the history of science and medicine, is not sufficient to reveal the twists and turns in communication — and the reasons behind them — that led to the coexistence of conflicting narratives, the launch of accusations, and the fabrication of disinformation. There were many agents and competing interests underlying health news.

The kaleidoscope of attempts to control this news can best be grasped by analyzing archival sources relating to the institutions charged with health control in specific places, along with texts such as Calvi's.⁴⁵

As mentioned previously, the primary role of those institutions was to ensure that they were regularly informed about the global health situation, and to formulate narratives that would help protect local interests (especially commercial ones). Information was also used to devise measures for the protection of public health, which was then printed and carefully distributed, not only within the state, but also in foreign courts to make it clear that the territory and ports in question were safe. Emblematic in this sense is the case of the 1743 plague of Messina. While failing to contain the contagion, the viceregal government (in the person of Francesco Ventura, General Superintendent of Health) acted swiftly in publishing proclamations that detailed rules and procedures so as to demonstrate to 'foreign nations' their state of readiness and to shut down 'fake news'.⁴⁶

A closer look at the everyday practices of health magistrates in the same years during which the inoculation debate evolved in the Italian peninsula, reveals how health matters took account of morality, religion and internal politics, as well as the economy and international relations. While Livorno and Tuscany were emerging as centres in the inoculation debate, they were also the beating heart of new forms of narrative construction and control, as well as gaining importance as models for other public health practices. The archives of the health magistracy of Florence can illuminate another facet of disinformation, for they show that the attitude towards disease was in fact rather different from what texts such as those collected by Calvi suggested. Usually, in the correspondence of the magistrature epidemics were all labelled as 'plague' or 'unknown illnesses'.⁴⁷ But officials were faced

⁴⁵ An overview of Mediterranean health institutions can be found in Paolo Calcagno and Daniele Palermo, *La quotidiana emergenza: Molteplici impieghi delle istituzioni sanitarie nel Mediterraneo moderno* (Palermo, 2017). On Genoa: Giovanni Assereto, 'Per la comune salvezza dal morbo contagioso'. *I controlli di sanità nella Repubblica di Genova* (Novi Ligure, 2011).

⁴⁶ Archivio di Stato di Napoli, *Supremo Magistrato di Salute*, file 277, paper 350, 14 June 1743 (for first quotation here); *ibid.*, paper 450, 30 June 1743 (for second quotation).

⁴⁷ This attitude is a common trait: see Archivio di Stato di Genova, *Ufficio di Sanità*, file 1047; Archivio di Stato di Milano, *Atti di governo, Sanità*, p.a., files 143, 287; Archivio di Stato di Trieste, *Cesarea Regia Intendenza Commerciale, Sanità*, files 493, 495, 511.

with the same problems encountered by the intellectuals: the need to calm people's fears and to deal with competing narratives.

In the early 1750s, the Grand Duchy was busy rebutting a series of rumours which claimed that Livorno was an unsafe port because of its trade with the Berber Regencies, greatly increased following the signing of peace treaties between the North African principates and the Habsburg Emperor.⁴⁸ To show evidence of the 'unreliability' of such voices, the health magistrate first relied on data: an enquiry into the number of North African ships docked in Livorno was launched and made public to demonstrate that the figures were actually limited and, what is more, that no trace of disease had been found.⁴⁹ The data, however, proved not to be enough to convince the other Mediterranean ports to lift the quarantine they were imposing on Tuscan ships, using health concerns as weapons of economic competition. The Tuscan effort to create a winning narrative that was able to stem the flow of disinformation and to persuade its neighbours, was not producing the desired outcomes, as the health magistrate lamented to his counterpart in Rome, pointing out also that 'the rumours were disseminated perhaps for other purposes than for the zeal of public health'.⁵⁰

Specific suspicions followed these generic accusations voiced by the health magistrate. When asked by Venice about a purported plague in Algiers, the magistrate answered that the news was 'inconsistent' and had probably been fabricated by Genoa to damage Livorno.⁵¹ However, rumours of epidemics were deemed a particularly sensitive matter, so Tuscany activated its information network, first inspecting ships that had recently arrived from North Africa and then gathering reports from Marseille and Ancona. Soon the magistrate was able to inform Venice that, indeed, an epidemic had broken out in Béjaïa, and in turn the Republic reported another human epidemic in Albania and a bovine one in Carniola, Styria and Carinthia.⁵² While the plague continued to rage in Algeria, Livorno actually managed to turn in its

⁴⁸ Danilo Pedemonte, '“Operando in pregiudizio della piazza di Livorno”. Pubblica salute e privati interessi nella guerra sanitaria degli Stati italiani alle paci imperiali con i barbareschi (1748–1749)', in Andrea Addobbati and Marcella Aglietti (eds.), *La città delle nazioni: Livorno e i limiti del cosmopolitismo (1566–1834)*, Pisa (2016).

⁴⁹ ASF, US, file 121, 19 December 1753.

⁵⁰ *Ibid.*, 16 February 1754 and 11 March 1754.

⁵¹ *Ibid.*, 22 July 1754.

⁵² *Ibid.*, 13 October 1755, 19 November 1755 and 31 January 1756.

favour what had started out as a possible thread of disinformation. It acted as a clearing house, passing on news to Lucca, Bologna, Ancona, Ferrara, Ravenna, Milan, Mantua, Modena, Parma, Turin, Rome, Genoa, Naples and Massa.⁵³ The Tuscan promptness here highlights the co-operation existing between Mediterranean health institutions, but it must also be ascribed to the desire to be in control of the narrative. The Tuscan government had every reason to present Livorno as a safe harbour in which health regulations were rigorously respected, and reliable health news was collected and shared. The free port was still under international scrutiny, and in many Mediterranean ports — not least because of fear provoked by the Algerian plague — Tuscan ships had to endure quarantines.⁵⁴ However, Naples looked up to Livorno as a model of devising effective measures and asked for detailed information on the procedures adopted. The health magistrate obliged, discussing at length its approach and comparing it to the Venetian one.⁵⁵

This management of information about the Algerian epidemic ultimately had the desired outcome, which is to say that Rome, Naples and Genoa removed all obstacles to Tuscan ships in their ports.⁵⁶ As Baldasseroni affirmed, by controlling news and limiting damage caused by the competitors' disinformation, Livorno was emerging as an influential and powerful example in health and institutional matters: 'after all, I believe that we must give the rule to others, rather than receive it'.⁵⁷ Even Venice turned to Livorno to validate rumours on epidemics, and Naples did so to devise quarantine regulations. And Trieste, too, followed Livorno's example by working to present itself as a safe harbour; after more than a decade of debates, in which the city's elites opposed Viennese projects and vice versa, it was Baldasseroni who brokered a viable solution: a new lazaret was created, and new rules issued, both based on Livorno's model.⁵⁸ All these innovations were advertised: when the lazaret was inaugurated in 1769, its regulations were printed and distributed to all Mediterranean ports and, in

⁵³ *Ibid.*, 10 April 1756.

⁵⁴ *Ibid.*, 11 May 1756.

⁵⁵ *Ibid.*, 14 September 1756.

⁵⁶ *Ibid.*, 19 February 1757; ASF, US, file 90, 12 February 1757 and 15 February 1757.

⁵⁷ ASF, US, file 394, paper 716, 21 May 1756.

⁵⁸ Paolo Castignoli, 'Strutture sanitarie a Livorno e a Trieste: soluzioni e schemi comuni nell'età di Maria Teresa', in Paolo Castignoli (ed.), *Livorno dagli archivi alla città: studi di storia* (Livorno, 2001), 197–202.

a virtuous circle, the reverberations of Trieste's modernization resulted in calls for the building of new infrastructure in Livorno itself.

V
BY WAY OF CONCLUSION

This article set out as an enquiry on how health disinformation was created, and on how it impacted on society. As argued through the sources and cases analyzed, answers are to be found in studying the entire information chain: considering how news was constructed, circulated for specific outcomes (commercial, political or cultural), and how it sparked reactions. Health controversies provide a fertile ground for understanding disinformation because of their pervasiveness and their conflictual character. Moreover, they are matters of a complex nature with social ramifications, and in which politics, morality and economy were inextricably intertwined. The analysis of focal points such as port cities, along with those of textual sources, is a useful way of measuring such repercussions for, not only were they the spaces most vulnerable to contagion, but they were also liminal ones in which measures were constantly devised in response to internal and transnational confrontations and collaborations.

In short, the agents populating the many and rival *ancien régime* ports (and their hinterlands) manipulated information and its inextricable other: disinformation. Even when they did not resort to blatant disinformation, they were under pressure to gain control over the narrative, and thus to issue a triumphant communiqué. As this article has shown, what happened is that the constant fear of contagion, combined with growing commercial and political state interests, resulted in institutional responses and attempts to both manage health matters and shape all information concerning them. The case of the eighteenth-century debate on inoculation stands out as particularly interesting because of the presence of opposing sides that resorted to construction of disinformation, and that were careless of the truth when determined to win the battle of ideas. Even pro-inoculators, celebrated enlightenment thinkers, and reformers made use of disinformation to pursue their goals. Thus, disinformation itself is not an exception in the eighteenth-century media ecosystem, but it is rather an essential part of interaction within the public space.

A close inspection of specific cases, as attempted here, is instrumental in illuminating such strategies from the inside. What emerges is that the eighteenth-century management of information was anything but

neutral and haphazard. Rather, it became systematic, and it was the result of the political will to exert a more comprehensive control on society through attention to health practices and narratives.⁵⁹ In turn, the cases analyzed here reveal some more general facets of early modern disinformation. As mentioned above, it was, not only the irrational and the bigoted who manipulated the boundaries between truth and falsehood: prominent and enlightened physicians did not disdain to inflate data if they thought it was the only way to persuade the public. An agent of disinformation could be anyone wanting to triumph in a debate: cheap and instant publications provided both the means and the temptation. Aiming at a larger readership, authors felt an urge to exaggerate, either by converting hundreds of inoculations into millions or by fabricating controversial deaths. Creators of disinformation could also be found among officials, merchants and diplomats: it was enough to make a certain kind of casual remark in the docks of a congested Mediterranean port city to ignite transnational suspicions that could have dire consequences. Rumours then became manuscripts: writings whose contents and trajectories were almost impossible to keep in check. In the end, what the sources suggest is that the best way to counter disinformation is not to debunk it point by point, as Calvi and the three theologians vainly attempted, but to obscure it through a more powerful and arresting narrative, as Livorno's officials did rather more successfully.

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⁵⁹ Burke, *Social History of Knowledge*, 117. The author underlined how up to the mid seventeenth century information responded to specific problems or crises such as sedition, plague and war, while later there was a 'long-term trend towards the collection of information to help with routine practices of government'.