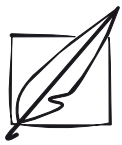

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Italy and the Royal Society: Medical papers in the early *Philosophical Transactions*

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ABSTRACT

During the first years of the Royal Society's existence, a whole network of natural philosophical exchanges was set up between the Fellows and foreign gentlemen interested in the study of nature. From the exchanges with Italy, medicine appears to be one of the major topics of interest; and a series of medical papers based on Italian researches appear in the Society's journal, the *Philosophical Transactions* (*PT*).

This article is a linguistic and socio-historical analysis of 25 medical papers published in the *PT* in the first fifty years of its existence. The selected articles were either translations of Italian writings or reports of Italian research. The purpose of the study is: (1) to illustrate from a linguistic and socio-cultural point of view the nature of Italian medical contributions to the early *PT*; and (2) to investigate Anglo-Italian relations through the Royal Society's medical interaction with Italians by analysing the *PT* articles and further contextual resources from a critical perspective.

Keywords: Anglo-Italian relations, medical writing, *Philosophical Transactions*, Royal Society, seventeenth century.

> And your own intelligence will spur you on, without the urging of others, to inform yourself about these matters; in the same way you will be led, without doubt, to encourage all the keen minds of Italy to employ their talents in advancing the sciences and the arts by observations and experiments faithfully and diligently performed. We hope that that great prince of the Roman Church, Cardinal de' Medici, will never leave off philosophizing, or making his academicians philosophize, nor that those celebrated men Rucellai, Ricci, Capponi,

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> Cassini, Viviani, Rinaldini, Dati, Redi, Borelli, Fabri, del Bono, de Angeli, Settalla, Magalotti, Falconieri, Manfredi, Travagino, etc. will ever cease to contribute their knowledge and diligence to increasing the glory of this century, so exalted already by the growth of knowledge and useful discoveries. (Oldenburg to Azout, 1668, in Hall – Hall 1967: 482-483)

1. Introduction

Soon after its foundation in the 1660s, the Royal Society became a centre of philosophical exchanges; and natural philosophers from all over Europe sent letters, books and accounts seeking approval and/or publication. As far as the Italian states were concerned, there was mutual interest; Italian learned men were attracted to the Society's Baconian agenda and metaphysical neutrality (Cavazza 2002: 6), while English Fellows often sought contact with notable Italians as they were interested in receiving information on Italy's scientific advances.

The plans of the Royal Society – to cultivate "a sound and useful philosophy" through the "joint labours of the industrious and wise men of the whole world in mutual co-operation" and by a "diligent and unremitting examination into Nature through observation and experiment, carefully and frequently performed" (Oldenburg in Hall – Hall 1966: 620-621)[1] – were especially promoted by its secretary Henry Oldenburg, who from the first years of the Society's existence sought contacts with foreign scholars and gentlemen. To this purpose, Oldenburg exploited every means possible: English residents in Italy, travellers, merchants, and even foreign acquaintances, who collected and transmitted to him Italian knowledge, writings and objects of all kinds. Thanks to their help, Oldenburg also got in direct (epistolary) contact with Italians whose names and works had come to his knowledge. He sent out many letters written according to a rather standardised schema: praising his addressees, asking them to send him any information available on their own work and that of others, and offering to do the same in exchange. Italian men of learning held the Royal Society in high esteem too, to the extent that academies and journals, such as the Istituto delle scienze e delle arti and Francesco Nazzari's *Giornale de' Letterati*, were founded on the Society's model.[2] Several Italians thus corresponded

[1] This is from a 1667 letter by Henry Oldenburg to Leopold de Medici.

[2] For historical studies on the Royal Society's relations with Italy see: Beretta (2000), Boschiero (2002), Cavazza (1980, 2002), Clericuzio (2013), Cook (2004), Fisher (2001),

with the Society, became Fellows and sent news about their work. Among the early Italian Fellows, a relatively high number were physicians, some of whom, such as Marcello Malpighi, were very influential not only in their own time but also on later generations of researchers of nature.

Hence, books based on Italian research were published through the Society's publishers, and natural philosophical papers – written in English, Latin and (rarely) in Italian – appeared in the Society's journal, the *Philosophical Transactions of the Royal Society* (hereafter *PT*). By focusing on *PT* papers based on Italian medical researches and published in the first 50 years of the journal's existence, the purpose of the present study is: (1) to illustrate from a linguistic and socio-cultural point of view the nature of Italian medical contributions to the early *PT*; and (2) to investigate Anglo-Italian relations through the Royal Society's medical interaction with Italians by analysing the texts from a critical perspective.[3]

To this end, 25 medical papers that were either translations of Italian writings or reports of Italian research were collected and analysed. The papers were published between 1665 and 1706 (given the lack of Italian medical papers for the year 1705). A largely qualitative linguistic analysis of the collected primary sources was carried out. The methodological framework behind the analysis draws primarily on Atkinson (1992, 1999), Bazerman (1988) and Biber (1988) for the analysis of structural and linguistic features[4] and adds the critical approach of Fairclough (1992) and Reisigl and Wodak's (2016) Discourse Historical Approach (DHA) to gain a more objective view of what emerges on Anglo-Italian relations from the discourses under study.[5] Original letters, meeting minutes, logbooks and reports have therefore been integrated into the study in order to obtain as accurate and multifaceted a picture of the sampled discursive events as possible. An important aspect

Gómez López (1997), Hall (1982), and Knowles Middleton (1979). Further relevant background studies include: Rusnock (1999), Schickore (2010), Shapin (1988) and Shapiro (2002). For a more language-focused perspective, see Avramov (1999), Henderson (2013), and Turner (2008).

3 The present study stems from a broader research project currently being carried out on Anglo-Italian relations through the Royal Society's letters and published papers in all fields between the seventeenth and nineteenth centuries.

4 This however represents a preliminary study on Italian-research-based papers in the *PT* and a first attempt at carrying out CDA on discourse that was not produced in recent history – as is typical for CDA – but on early modern writings. A short time span was therefore sampled in order to privilege a more detailed analysis of the sources. Consequently, the diachronic aspect that characterises Atkinson's sociolinguistic approach was left out – at least as far as this study is concerned.

5 See also Banks (2009, 2010, 2012), Gotti (2011, 2014), Locke (2004), Lonati (2016) and White (2004).

that characterises the present research, and that appears to have been overlooked in previous researches carried out on *PT* papers, is that the original source of the papers was taken into consideration throughout the analysis. That is, a great deal of what was published in the *PT* originates from letters sent from abroad; the content of these letters was then reported in or translated into English in the *Transactions*. This means that the use of the English language was possibly influenced by the source writings and, in the case of translations, it may have represented discursive practices of the foreign country rather than English ones.

This introduction is followed by a section focusing on the Italian medical men from which the research reported in the collected *PT* papers originated and on the nature of their relations with the Society. Section 3. reports the results of the analysis focusing on the discursive strategies that were more prominent among the papers and on how Italian medical discourse has been represented in the *PT*. Section 4. adds some further historical information that emerged from the content analysis of the papers and section 5. draws some preliminary conclusions to the study.

2. Italian contributors and their relations with the Society

Of the over 100 Italians of different callings who were made Fellows of the Royal Society between the seventeenth and eighteenth centuries, 34 were men with medical interests.[6] A third of them were concentrated in the first half century of the Society's existence.[7] It should be remembered, however, that it is not possible to precisely relate Fellows to specific disciplinary groups since, as was typical of the time, many of them had multiple interests and

[6] Marcello Malpighi (1669), Francesco Travagino (1676), Giacomo Pighi (1680), Giacomo Grandi (1690), Domenico Bottone (1695), Silvestro Bon-figlioli or Bonfigliuoli (1696), Francesco Spoleti (1696), Giorgio Baglivi (1698), Domenico Guglielmini (1698), Emanuele Timone (1703), Antonio Vallisnieri (1703), Giovanni Maria Lancisi (1706), Michelangelo Tilli (1708), Michele Bernardo Valentini (1715), Francesco Torti (1717), Giovanni Battista Morgagni (1722), Nicola Cirillo (1727), Jacopo Bartolomeo Beccari (1728), Antonio Leprotti (1734), Jacobus Jattica (1735), Antonio Cocchi (1736), Giuseppe Lorenzo Bruni (1744), Pietro Paolo Molinelli (1749), Saverio Manetti (1756), Vitaliano Donati (1757), Carlo Allioni (1758), Antonio Maria Matani (1763), Antonio Montani (1763), Giovanni Francesco Cigna (1764), Conte Simone Stratico (1764), Conte Giovanni Battista Carburi (1765), Lazzaro Spallanzani (1768), Leopoldo Marco Antonio Caldani (1772), and Antonio Scarpa (1791). For a list of Italian Fellows in the seventeenth and eighteenth centuries, irrespective of their occupation, see Hall (1982).

[7] 9 out of the 20 Italians elected in the seventeenth century and 25 out of the 105 Italians elected in the eighteenth century.

occupations, and the concepts of science and sciences had not yet developed to what they are today. Domenico Guglielmini, for instance, had studied both medicine and mathematics but mainly carried out studies in astronomy and physics.

Another aspect that must be born in mind when considering the Royal Society's foreign relations is that not all of their correspondents were made Fellows, and that this made them no less important than those who were elected. In fact, non-Fellow correspondents often contributed more knowledge to the Society's plans of a universal natural history than Italians who had been formally elected.[8] Hence, names such as Francesco Redi and Carlo Fracassati, who were not FRSs, should be added to the list of the Society's contributors, since information on their researches – on the nature and effects of viper poison and spontaneous generation, for the former, and experiments on the transfusion of blood for the latter – not only appeared in the *Philosophical Transactions*, but also stimulated responses from other natural philosophers interested in these subject areas.

The papers on Italian researches published in the *PT* were related to the following Italians: Marcello Malpighi, Francesco Travagino, Giacomo Grandi, Giovanni Maria Lancisi, Francesco Redi, Carlo Fracassati, Tommaso Cornelio, Giuseppe del Papa, Giovanni Cosimo Bonomo and Lorenzo Bellini.[9] The anatomist and biologist Malpighi was one of the earliest Italians to be invited by Henry Oldenburg to correspond and cooperate. He accepted the invitation promising to become one of the chief promoters in Italy of a universal natural history and to collaborate with scientists throughout the peninsula to this effect. Soon after, in 1669, he was elected honorary Fellow. All of his works were sent to the Society and published by their official printers (Cavazza 1980: 109-111).[10] His studies on the anatomy of the frog, which lead to his famous discovery of the pulmonary and capillary network, were among the material he sent to the Society.[11] A key feature of his work was the use of the microscope; Italian-made microscopes and telescopes

[8] Indeed, some Italian Fellows, were often Fellows just in name, in that they do not appear to have had any philosophical exchanges with the Society. This was especially the case of high-profile men such as statesmen and diplomats, who were more likely elected for their political potential and their own web of notable contacts rather than their own philosophical interests.

[9] Biographical information has been retrieved from the *Fellows Directory* of the Royal Society, the *DBI* and the *ODNB*.

[10] *Dissertatio Epistolica de Bombyce* (1669); *Dissertatio Epistolica de Formatione Pulli in Ovo* (1673); *Anatome Plantarum* (1675); *Opera Omnia* (1686); *Opera Posthuma* (1697).

[11] One of his letters on his dissections of frogs appears in the *PT* (*Phil Trans* 1671a: 2149-2150).

were another source of interest to the Society and detail regarding these instruments and their makers was frequently reported alongside one's research or in specific papers on the topic. Among the papers sampled for the present study, four are related to Malpighi's research, and in particular to his anatomical studies on the brain, tongue, and pulmonary system. All this goes to show that while Malpighi had to face opposition from his Italian colleagues, who did not share his views, the Fellows showed great interest in him and those who travelled to Italy would generally pay him a visit and report back to the Society about him and his work. Francesco Travagino was also a correspondent. In the literature he has been defined as a physician, a would-be-alchemist, a physicist and an astronomer, thus reflecting his various interests. In his letter exchanges with the Fellows, he reported about his experiments with mercury, about earthquakes, and medical topics. He sought the Society's opinion on his *Synopsis Novae Philosophiae & Medicinae*, a review of which is found in the *PT* (EL/T/9, *Phil. Trans.* 1666e: 555-556).[12] Jacobus Grandi[13] was a lesser known physician from Venice. He sent a letter to Oldenburg about two unusual cases of childbirth, which was published in the journal (*Phil. Trans*. 1670a: 1188-1189). On the contrary, the Roman Giovanni Maria Lancisi was well known in his time and is still famous today. The publications associated with him in the *PT* are two, one on Malpighi's death and autopsy, the other on the presence of acid salts in blood. Although he does not appear to have had any direct relations with the Fellows, Francesco Redi's research was well known to the Society and he is referenced in several papers. His work was both inspirational for further research and questioned. Among the sampled group of papers, one deals specifically with Redi's viper experiments and there is also a report of a reproduction of his experiments.[14] Fracassati's case is similar to Redi's, no direct relations but information on his researches appears in three *PT* papers all dealing with his experiments on blood and blood transfusion. Tommaso Cornelio was not a Fellow either, yet he was a supporter of the Society's experimental approach to the study of nature (EL/C1/108) and exchanged a series of letters with John Dodington – one of the Society's contacts in Italy – and Henry Oldenburg. The result of this exchange was a paper in the *PT* "concerning some observations made of persons pretending to be stung by tarantulas" (*Phil. Trans.* 1672b: 4066). Giuseppe Del Papa was another physician from the Tuscan circles and

[12] EL/T/9 refers to the original letter in the Royal Society's archives. References to ELs (Early Letters) are provided throughout the paper.

[13] His first name is also found as Jacomo, James and Giacopo.

[14] There is also a paper, drawn from a written discourse of his, on factitious salts (*Phil. Trans.* 1698: 281-289). This paper however was not included in the present study.

succeeded Redi in his role of personal physician to Cosimo III de Medici.[15] A paper related to his research on the effects of an "Indian varnish" was published in the *PT*, communicated by William Sherard (FRS 1720).[16] Lorenzo Bellini had no direct contacts with the Society; his work was nevertheless well known to them. A paper on his "anatomical engagements", which has mostly been left in Bellini's original Latin, is found in the *PT*. The Society also managed to publish one of Giovanni Cosimo Bonomo's very first studies on the scabies mite (*Phil. Trans*. 1702: 1296-1299). However, Bonomo does not appear to have had any personal relations with the Fellows. The paper related to him was communicated by Richard Mead (FRS 1703).

Finally, another source of information for the Society were Italian journals. Several Italian papers published in the *PT* were taken out of the Venetian and Roman journals *de' Letterati*. Moreover, Francesco Nazari, the founder of the first *Giornale de' Letterati*, wrote to Oldenburg asking him to correspond. In his journal Nazzari wrote about the Society and translated and published papers from the *Transactions* (Gómez López 1997). The French *Journal des Sçavans* too provided the Society with material on Italy, which the Society translated and published in the *PT*.

3. The papers

A total of 25 *PT* papers were collected for the purpose of investigating English-Italian medical relations. The group includes five anatomical studies; four blood studies; one death report; two studies on the effects of viper poison, one on tarantula bites, and one on the effects of an Indian varnish; one of the first studies on the scabies mite; a paper on stones found in animals; four book accounts; and two letters of general updates on Italy's medical advances.

Four of the papers were published in their original Latin and were excluded from the linguistic analysis, which focused on papers written in English. However, the publication of a paper in Latin was itself significant in that Latin was generally used by the publishers to make papers internationally accessible.[17] Papers written in English were thus occasionally translated into Latin, and papers written in Latin were not always translated into English.

15 *DBI*, s.v. Del Papa, Giuseppe.

16 FRS (Fellow of the Royal Society) followed by a year, after a Fellow's name, refers to the year of their election.

17 According to Henderson, while there is evidence in the bureaucratic archival material of requests for translations from foreign vernacular languages, there appear to be no

Two papers instead were partly in English and partly in Latin. In both cases, English served the purpose of framing the main body of the papers by means of introductory and concluding sections written by the editor. One of the two papers (*Phil. Trans.* 1706: 2282-2303) provides a series of miscellaneous medical notes in Latin by the naturalist John Ray (FRS 1667). The other Latin-English paper (*Phil. Trans.* 1670: 2093-2095) consists of notes by Lorenzo Bellini.

Of the papers written in English, nine were translations from Italian or Latin, while the remaining were originally written in English. The actual writers or translators of seventeenth-century *PT* papers are generally anonymous. The tendency is to put the Italian source of information and the name of the addressee, but not the person who dealt with the translation or the writing of the paper for publication. At least until the late 1670s, however, the translator of most papers was generally Oldenburg himself. In the eighteenth century, instead, names of translators and "communicators" started appearing, as in the case of William Sherard, Richard Mead and Samuel Dale who are found as the communicators of three of the early eighteenth-century papers.

The discourse analysis distinguished between translated papers and reporting papers. The translated papers were originally written by Italians and were then translated into English. Reporting papers instead were written directly in English and report about a particular topic based on Italian researches. Since the different nature of these papers can influence the writing style, the two text types have been treated separately. In the first case, the writing style may be that of the original Italian author, only translated into another language; while in the case of reporting papers, the style will be that of the English (or other nationality) writer. Further, the translated papers display the Italians' opinions (where present), while the reporting papers generally display those of the reporter.

3.1 Discourse features

Starting from the macrostructural features, it was observed that 12 out of the 25 papers (48%) are in letter form. Letters could either be prefaced with a short introduction by the editor or be directly published in their full or abridged version. Titles tend to be long, self-explanatory and often point out

such requests for material written in Latin, which would suggest that the Fellows felt comfortable with this language (2013: 108).

the source of the reported information. The body of the papers, instead, tends to be short, generally not exceeding four pages in length. Both translated and reporting papers often contain a brief introduction written by the publisher. Sometimes the introduction is followed by footnotes with references to other papers and/or short comments. Moreover, the publisher occasionally intrudes into the translated texts with quick reminders in brackets informing the reader that the person speaking is the original Italian author.

Ten papers were written in the form of observations. Other text types included four book accounts, three experimental reports, two updating papers, one report of death and autopsy, and a brief piece of commentary on a published paper.

As far as the use of language is concerned, just over half of the papers display a narrative writing style (13/25, 52%), featuring past or present tense, perfect aspect, public verbs and third person personal pronouns. Narrativity is generally found to be frequent in the early *PT*, and this is especially true in the case of the reporting papers, which mostly deal with the work of a third Italian party, making a narrative and/or descriptive use of language necessary. More than half of the papers (14/25, 56%) were also characterised by an involved and author-centred approach (Atkinson 1992 and 1999). This means that the writing was characterised by features marking the author's presence and thoughts within the text and as the main agent of what was being reported. The main features marking involvement were first person pronouns, active verbs, private verbs (showing the author's psychological states and mental processes, e.g. think, believe), displays of personal relations, modesty, and forms of encomia mostly towards Italian natural philosophers. See for instance the following extract where features of involvement are marked in italics:

> *I have* several times *spread* a great deal of this varnish hot upon the naked skin of poultry, and they never received any mischief from it, either internal or external. *I have caused* other fowl to swallow crumbs of bread sopt in the varnish, and they seemed to like it very well. In others *I have made* several little pricks in their breasts till blood came out, and then *anointed* it all over with varnish, which instead of hurting them, proved a balsam to heal them. […] *I verily believe* there is no mercury of what sort soever in this varnish; not only because it is very light (as was said), but besides because *I have been very diligent* in trying whether gold would discover any sign of mercury […]. (*Phil. Trans.* 1700d: 949, translated)

Of the fourteen papers that were characterised by an involved use of language, eight were reported papers (57%), thus slightly more than the papers directly translating Italian research. However, seven papers (28%), three of which were translations and four reported, appeared to be more informational in nature in that they lacked the presence of an authorial persona; the use of language was less verbal (however not yet highly nominal either); and writers simply reported what was observed or performed – four papers being observations, two experimental reports, and one a book account. Interestingly, three of these more informational papers displayed a rather abstract use of language, characterised by passive voice, which allows the authors to put the object of their research in focal position. As a result, these few papers appear to be object-centred rather than author-centred, going against the general tendency of the early research article. Features marking abstractedness are in italics in the following extract:

> *Having infused* into the jugular and crural vein of a dog some aqua fortis diluted, the animal died presently; and *being opened*, all the bood in the vessels *was fixed*, but that in the guts not so well. *It was* also *observed*, that the great vessels *were burst*, perhaps by an effort of nature; even as in the greatest part of those that die of an apoplexy, the vessels of the lungs *are found broken*. (*Phil. Trans.* 1666a: 490, translated)

Modesty and encomia appear to be employed in the papers mostly by English writers and the publisher; however, the original letter exchanges show that this kind of formality was widespread practice among both Italian and English scholars. See for instance the following extracts:

> Having been honour'd here with the place of publick anatomist of Venice, though I have given as yet but a very slender accompt of my performances, in comparison of the illustrious example of Mundinum, Vestigius, Molineta, &c. yet I shall acquaint you with some particulars that have occurred to me. (*Phil. Trans.* 1670a: 1188, translated)

> The journalist having been informed, that Signor Gyeronymo Barbato, publick professour of practical physic at Padua, and physician in Venice, had written a book upon that subject, and illustrated it with new anatomical diagrams, all ready for the press; did, it seems, obtain the perusal of the original manuscript, and permission withal, to make an extract thereof, which in this journal [the *Giornale de' Letterati*

> of Venice] he presents the curious with, to stay their desire whil'st the whole dissertation is printing. This breviate we thought fit to English here out of the Italian, as followeth. (*Phil. Trans.* 1671b: 2224, reported)

Choosing one wording instead of another means making choices about how to signify or construct social identities, social relationships, knowledge and belief (Fairclough 1992: 76). Hence, considering the particular wording choices that have been made, especially in contrast to alternative wordings, can provide further useful insight into what may have been the authors' thoughts and intentions and into the cultural and ideological meaning of their writing. The analysis of wording choices in the first extract reveals how the original Italian author, Giacomo Grandi, cautiously puts forward his piece of information by understating himself and his work through the use of contrastive subordination (*though…*) and words that have a connotation of smallness (*slender* in contrast with the connotation of greatness suggested by *illustrious* used with reference to notable physicians of the past). Again, in the second extract, Oldenburg modestly proposes an Italian piece of research to the reading public. He provides some background information for the written piece, hedging some of his statements (*it seems, we thought fit*). The second extract, moreover, displays another typical feature of the editors' introductions to both translated and reported papers; expressions like *we thought fit to English here* or *the publisher thought fit to insert* were often inserted to humbly present papers to the readership.

3.1.1 Witnessing

In the case of both translated and reported papers, great importance was given to the presence of notable gentlemen, or *virtuosi*, that witnessed what was now being reported in the article:

> Being opened, the Spectators were surprised to find his blood not curdled, but on the contrary more thin and florid than ordinary. (*Phil. Trans.* 1666a: 491, translated)

> Signor *Steno*, who honour'd me with his visit, saw the administration of it [autopsy of a not-completely formed baby], which I had before made in the presence of many Noblemen and Physitians at my House. (*Phil. Trans.* 1670a: 1189, translated)

In both the above extracts, the writers specify that a number of witnesses were present at the running of the experiments. While in the first case the

author speaks more generically of a number of spectators, in the second case an individual space is given to the Danish scientist Nicolas Steno[18] – possibly regarded as more newsworthy – and then more vaguely, but still relevant, to "many Noblemen and Physitians".

There was moreover a tendency to specify who the witnesses were in terms of their profession, reputation and/or social standing. Notice in the following extract, how the writer lists the names of the persons present at the running of a series of experiments and how, for each one of them, he provides brief biographic notes:

> Some few days after, a rendezvous [of experiments to see the effect of viper poison on pigeons] was made in Sign. *Magalotti's* Garden, where, besides the forenamed persons, met Mr. *Thomas Frederick*, Mr. *John Godscall* (two English Gentlemen), Abbot *Strozzi* (his Most Christian Majesties Publick Minister in this Court), Sign. *Paolo Falconieri* (the first Gentleman of the Bed chamber to the G. Duke), Sign. *Luigi del Riccio*, Mons. *Pelletier*, Mons. *Morelle* (the one Physitian, and the other Chirurgeon to the G. Dutchess), Dr. *Gornia* Physitian in Ordinary to His Highness, Dr. *Bellini* Professor of Anatomy at *Pisa*, Sign. *Lorenzo Lorenzini* a Mathematician, and Sign. *Pietro Salvetti* […] who is one of the G. Dukes Musicians, and plays on all Bow instruments. (*Phil. Trans.* 1672a: 5064)

Witnessing was common practice among early modern scientists and writers of science. Together with detailed recording and reporting of natural and experimental events, witnessing served the purpose of building a discourse of fact. In the absence of other forms of evidence, the presence of witnesses would ultimately give credibility to the truthfulness of the report (argument from authority). The existing literature on testimony in early modern science links the credibility attributed to witnesses to their social status: the higher the witness's status, the more credible was the report. However, Shapiro (2002) argues that the role of gentlemanly norms is overemphasised by historians. She shows that gentle status was only one of the factors involved in assessing witness credibility and that witnesses were often not gentlemen. A more important aspect for the credibility of the testimony was the level of skill and experience. This appears to be confirmed by the author of the above-quoted paper when he writes:

[18] Nicolas Steno (1638-1686) settled in Italy in 1666 and converted to Catholicism in 1667.

> This is, Sir, what I can confidently affirm to have been an eye witness of; [….] but that, which urged me to make this repetition [to test the effects of viper poison], was the thought that it might be acceptable to you, to see his Assertions [Francesco Redi's] confirmed by the Testimonies of so many Persons, that are the more able to be judges of them, because their understandings are such, that 'tis not possible to impose upon them. (*Phil. Trans.* 1672a: 5066)

Thus, according to the author, the referenced witnesses had a broader understanding of the subject and their opinion could not therefore be doubted.

3.1.2 Explicit place reference

The tendency to report in detail appears to lead writers to name the town where a piece of research was carried out or sent from and to specify the location where the event took place. This is especially true in the case of reporting papers and travel accounts. Various sampled articles report that the experiments were performed at the homes of specific physicians or other amateur scientists. An example can be seen in the extract quoted above (*Phil. Trans.* 1672a: 5064), where it is said that the experiments were carried out in Lorenzo Magalotti's garden. Magalotti was not a physician but an intellectual and diplomat, who had visited the Royal Society and held regular correspondence with them.[19]

The most frequently cited toponyms reflected the locations of some of the main universities and medical Italian circles of the late seventeenth century; namely Bologna, Pisa, Sicily,[20] Padua and Rome. A great deal of correspondence was kept between London and Tuscany, in that several Italian learned men lived in and moved about the Tuscan towns. Florence moreover, was the home of the Accademia del Cimento, whose members – among which also the De Medici brothers, Prince Leopold and the Grand Duke Ferdinando II, founders of the academy – had contacts with the Society. Table 1. below lists all of the place names found in the papers with the number of mentions.

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[19] Magalotti, who had studied English, visited England and the Royal Society twice in 1667 and 1668 (Wis 1996: 343). Two of the main purposes of his visits were to bring back information about the Society to Italy and to encourage Boyle to correspond with Italian scholars (Knowles Middleton 1979: 163). See also Knowles Middleton (1980).

[20] On the Society's relations with the south of Italy, see D'Amore (2017).

Table 1. Cited place names and number of citations

Toponym	Number of mentions
Venice	6
Rome	4
Bononia (Bologna)	3
Pisa	3
Naples	3
Padua	2
Florence	2
Sicily	2
Genoa	2
Udine	1
Lombardy	1
Savoy	1
Tuscany	1
Leghorn (Livorno)	1
Palermo	1
Calabria	1
Otranto	1

Venice was the most frequently mentioned in that it was the home of one of the Italian journals *de' Letterati* from which the Society often retrieved material for publication in the *PT*. It was also the home of the physicians Travagino and Grandi, and of the English diplomat John Dodington, who worked as an intermediary between Italians and the Society. Although less active from a medical point of view (Cook 2004), Rome was also frequently mentioned as the source of the two Lancisi papers and one of the favourite stops for travellers.

Finally, no distinctions appear to be made between the different Italian states. While place names are provided for the sake of exhaustiveness and factuality, the physicians are generally referred to as being Italian, which would seem to suggest that the various states were seen as belonging to a unified socio-cultural entity, the Italian *Res publica litterarum*.[21]

[21] Mentions of the Italian states individually were made in other papers related to Italy; these were however very few and irrelevant among the broad group of over 300 *PT* papers related to Italy.

3.2 Evaluation and discourse representation

Evaluation – i.e. positive or negative assessments which the author makes on his own behalf either explicitly or implicitly (White 2004) – should be considered in a critical approach in that the author's opinions "might influence or position readers/listeners/viewers to take a negative or positive view of the people, events and states of affairs being depicted in the text" (White 2004: 1). Discourse representation instead – a subcategory of intertextuality, i.e. "the property texts have of being full of snatches of other texts, which may be explicitly demarcated or merged in, and which the text may assimilate, contradict, ironically echo and so forth" (Fairclough 1992: 84-85) – refers to the explicit incorporating of other texts focusing on how discourses are represented within the discursive event under study. This category is particularly relevant to the present analysis, in that most of the sampled papers include some form of represented discourse, either by incorporating original extracts and full Italian papers or by reporting and adapting their contents.

Starting from the first category, the high presence of an involved language production on the authors' part entails that evaluation of Italian physicians and their work did indeed occur. Evaluation was generally explicit and positive, especially considering that what was published in the *Transactions* had been discussed at meetings and judged worthy of publication beforehand. As was mentioned earlier, also letter exchanges reveal mostly positive encomiastic relations between English and Italian natural philosophers, and between English natural philosophers speaking about Italians.

Explicit evaluation was mostly expressed through praise and positive evaluative adjectives, or, in DHA terms, through the extensive use of nomination and predication strategies that positively construct objects, events, processes and especially social actors such as "the *ingenious* [Paolo] Boccone", "that *great* anatomist seignor Antonio Marchetti", or "that *learned* anatomist" referring to Lorenzo Bellini (my italics). Translated papers too reveal examples of praise and positive evaluation. For instance, Lancisi refers to Malpighi as the "*incomparable* Malpighi, who naturally applied himself only to *serious* studies" and later "this *worthy* and *learned* man", "this *illustrious* person", "this *most learned* man". Positive evaluation was also referred, on a minor scale, to the physicians' studies with expressions like "a *curious* observation"; "many *notable* experiments"; "his book of vipers, which for several years passes in this country *almost for an undoubted truth*".

Evaluation towards the author was however much more abundant than evaluation towards the study, once again reflecting how the agent played a central role in seventeenth- and eighteenth-century natural philosophical discourses. These encomiastic strategies could be considered merely as part of seventeenth- and eighteenth-century genteel manners; however, reverential forms of this kind were not employed in speaking of all scientists. In the case of unknown Italian men, for instance, English writers would generally speak of "an Italian" or provide whatever piece of information was available regarding their profession and/or reputation. For instance, one of the first papers mentioning Redi's work, which will later become very well known in England, refers to him simply as "a curious Italian" and "this Italian philosopher" (*Phil. Trans.* 1665: 160, 162); and in another paper the author introduces Domenico Guglielmini by saying that "he is esteemed an excellent mathematician" (*Phil. Trans.* 1700c: 627), thus hedging his statement through the use of the passivized verb *esteem* and attributing the opinion to others.

Only two minor cases of potentially face-threatening discourse were found among the 25 papers.[22] The first was a case of implicit negative evaluation of a synopsis that the Society had recently received of a book by Francesco Travagino. The book was entitled *Nova Philosophia e Medicina* and, from the description made in the article, the book would seem to reflect a medieval summa, i.e. a compendium of all knowledge and sciences. In the extract below, the verbs and expressions that the author of the paper uses to attribute what is being said to Travagino are in italics:

> That *this Author hath compos'd* a System of Natural Philosophy by Observations and Experiments, accommodated to the benefit of Humane Life, and Subservient to Physick and other subalternate Arts; which Philosophy *he pretends* to have raised on Principles that are certain Bodies drawn out of Mixts, which, though in themselves invisible and incoagulable, yet become, *according to him*, visible by their Contrariety and mutual Operation […] And from their various Complication (in which he places the whole business and moment of Philosophy) *he holds*, that […] In particular, *he deduceth* from the

[22] Fairclough's (1992) critical approach to discourse analysis is interdisciplinary in that it exploits various linguistic, social, political and psychological theories. Among the most influential linguistic theories treated in *Discourse and Social Change* and underlying the present study are Systemic Functional Linguistics, presupposition and politeness theory/speech-act theory. Hence, the view of discourse as a cluster of face-threatening acts and politeness strategies that follow.

> said Principles the cause of Ferments and their variety, the Nature of Generations, Concretions, Putrefactions, Precipitations, &c. and *sheweth* how those principles run through all Minerals, Vegetables, and Animals, by their manifold Combinations, and various ways of acting on one another […] And having raised this Structure of his *as far as he judgeth* it sufficient for the Subordinate Arts, *he proceeds* to adapt it to the Art of Physick. And applying it to Animal Bodies, he thence *draws* the diversity of Humours and Tempers, the beginning and duration of Vital Heat, the motion of the Limbs, the faculties of Entrails, the origin, vitality, and properties of the Blood […] concluding with an Indication of the proper Remedies (*as he conceives*) of many Diseases.
>
> Whether this Philosophy be new, is easy to judge. (*Phil. Trans.* 1665: 556)

The extract is constituted by frequent attributions, repetition of the *and* conjunction and by the presence of several sceptical parenthetical remarks such as "though in themselves invisible and incoagulable, yet…"; "(in which he places the whole business and moment of Philosophy)" or "(as he conceives)". By saying "in which he places the whole business and moment of philosophy" the author is also exaggerating and oversimplifying Travagino's book intentions (intensification strategy). The perlocutionary force produced by this utterance contributes to the overall understating process set in motion in the passage. Moreover, the text includes a series of lists of the numerous topics that the author discusses in the book. All of these strategies together seem to create a slight mockery of the book being described. The writer of the paper finally concludes with the rhetorical comment "whether this philosophy be new, is easy to judge", thus implying that the book was certainly not a novelty; notice also the use of the indicative in the main clause (*is* easy to judge), which presents the writer's opinion as fact rather than suggestion.

An important step in a critical study of discourse is to interpret results taking into account the relevant context knowledge and any intertextually related sources. Hence, whenever some form of opinion, tension or evaluation appeared to transpire from a given discursive event, the original writing that led to the publication and/or any related letter exchanges were consulted in order to view how original discourses were represented in the *Transactions* and to compare different perspectives of the same argument. From a closer look into Travagino's correspondence with Oldenburg, it emerges that it was Travagino himself who had asked Oldenburg to review

his synopsis.[23] As has been seen, the Society did review the synopsis and published the review in the *PT*. Oldenburg moreover privately replied to Travagino's letter, but the tone of the letter is quite different from that of the published paper[24] going back to the traditional encomiastic formality of seventeenth-century letter exchanges:

> The Royal Society thinks highly of your remarkable deference to it, and instructed me to inform you of its great goodwill towards you and your endeavours. Indeed, nothing more pleasing to them could occur, than the news from my place on the globe that there are men who strive earnestly to promote science by reliance on observation and experiment and who, neither feigning nor formulating hypotheses on nature's actions, seek out the thing itself. And as they gather from the synopsis you submitted that you are a follower of the experimental method of philosophy, and more especially because the opportunities for exploring nature's hidden byways are so vast, they congratulate you upon your undertakings and labours, praying for your happy success in them. They desire you to supply what you so kindly offer in your letter (namely, the communication of the schedule of your experiments), when you conveniently can. When the work upon which you are engaged shall be published, it will assuredly furnish the Society with a further occasion for disclosing its judgement of yourself and your work. (Oldenburg to Travagino, in Hall – Hall 1966: 415-416)

Hence, Oldenburg's reply to Travagino positively congratulates him on his work and approach to nature and, although it mentions his synopsis and the Society's judgement of it, no actual judgement appears to be expressed. Moreover, it should be born in mind that the *PT* paper was in English

[23] Like many of his contemporaries, Travagino saw the Society as an authority in natural philosophical matters: "As it is the chief object of your Society to judge of the causes and effects in physics discovered by art and through art, and to promote discoveries sent to you from any quarter, no matter who makes them, I beg you again and again – or if you not yourself then whoever acts for you in this duty, but I assume you to be the most likely person – to take the laws into account and examine the Synopsis or Idea of a new Physics, a Practice which I have discovered through my experiments. This is a new task of mine; many, as you know, have tried it before me, but all in vain. So I fear that the same may befall me […]. However, it is certain that unless you too free me from my fear that the opposite is true I cannot ever consent to publish it, for all who know me, not to condemn me." (Travagino to Oldenburg in Hall – Hall 1966: 302).

[24] The identity of the author of the paper is not stated.

while the epistolary exchanges between the two men were carried out in Latin. Oldenburg may thus have been trying to avoid expressing an actual judgement on the synopsis yet wanting to maintain a good relationship with Travagino.

The second case of potentially face-threatening discourse is a claim of authorship of an experiment. The paper includes a letter,[25] whose anonymous author subtly points out that an experiment made by the Italian physician, Carlo Fracassati, had been previously performed in a very similar manner by himself, and that possibly Fracassati

> may have had some imperfect Rumour of our Experiment without knowing whence it came, and so may, without any disingenuity, have thence taken a hint to make and publish what now is English'd in the *Transactions*. (*Phil. Trans.* 1666d: 552)

The author of the letter appears to mitigate his claim of authorship through extensive hedging given by the modal verb *may* and the use of negation found in "imperfect" and "without"(mitigation strategy). Moreover, the author chooses words that have a connotation of smallness as in "an *imperfect rumor* of our experiment" – which suggests that Fracassati only heard a little of the experiment – and a "hint". The author thus opts for negative politeness in order to put forward his claim in a more indirect, respectful and less imposing manner.

Despite these two minor cases, overall the representation of Italian medical discourse in the *Philosophical Transactions* can be considered mostly positive, at least from what emerges from the involved author-centred papers, in that the positive discursive construction of Italian medical men and their work, through a general display of appreciation, dominates the sampled corpus. In the case of the seven informational papers, instead, discourse representation tended to be neutral starting directly with the narrative and avoiding comments and evaluative language. These papers, however, tended to make more frequent use of attribution through the use of public verbs (e.g. "he maintains", "he pretends", "he affirms"). In some cases, as was seen in the extract on Travagino's book above, the use of attribution is interestingly rather frequent; when moderately used, in fact, attribution can be considered a neutral discourse representation device, but its repetitiveness in certain papers seems to transform it into a slightly

[25] The letter is framed by Oldenburg's introduction and notes. In the paper, he acts as a referee providing evidence and thus confirming what is being stated in the letter.

negative device: it shows a desire on the authors' part to distance themselves from what they are reporting and thus conveying weak commitment, or possibly even scepticism, towards the reported discourse. Hence, while the Fellows were appreciative of Italian research, they were cautious when presenting it to the *PT*'s readership.

4. Collecting Italian medical intelligence for the RS: Pierre Silvestre's letters

Before attempting to draw some preliminary conclusions to this study, some further contextual historical details that emerge from the small corpus of *PT* papers are worth reporting. In the early modern period, there were severe difficulties in exchanging letters and books between Italy and England; yet the Society was interested in receiving news on Italian natural philosophy. The role of British fellows travelling to or resident in Italy thus became pivotal for scientific communication between the two countries.[26] Two of the papers under study, consisting of letters by Pierre Silvestre,[27] provide a good example of how information and, in this specific case, medical intelligence was collected and communicated to the Society. The papers are inserted in the *PT* with the following titles:

> A Letter from Dr P. Silvestre, of the Coll. of Phy. & F.R.S. to the Publisher, Giving an Account of Some New Books and Manuscripts in Italy. (*Phil. Trans.* 1700b: 613)
>
> A Letter from Dr Peter Silvestre, F.R.S. to the Publisher, concerning the State of Learning, and Several Particulars Observed by Him Lately in Italy. (*Phil. Trans.* 1700c: 627)

At the opening of the eighteenth century, Silvestre travelled through Italy and visited physicians, universities and academies collecting information for the Royal Society. He reported some information in a letter, and then, since the Fellows desired to be "more particularly informed of the virtuosi" he had seen in Italy and "of the state of learning there, chiefly as to natural philosophy and physick" he added the second more detailed supplementary letter.

[26] See among others D'Amore (2017).

[27] Also anglicised as Peter Sylvester (1662-1718, FRS 1699). Silvestre was a French physician. He arrived in England as William of Orange's physician in 1689 (Source: Royal Society's *Fellows Directory*).

In the first letter, he focuses on medical books that were being published in Italy in that period. He proceeds by mentioning the places he visited, the physicians he met, the researches they were working on, and occasionally some further curiosities about the physicians or his conversations with them. The following extract provides an example of Silvestre's manner of proceeding:

> I saw at passing *Florence*, Monsieur Bellini, he is at present busie in writing the anatomy of the body of man, in the *Tuscan* language. He assured me this work was wrote so clearly, and that he had taken such pains to explain the functions, by examples from ordinary mechanicks, and the commonest things, that the most ignorant could understand them […]. At *Rome*, I saw some manuscripts of the late famous Borelli at the Scholæ piæ, where he died. One of them was a discourse of his *de volatu hominum*, wherein by mechanicks he pretends to make up the natural defects a man has to fly. There are also many other academical discourses […]. Some others of these discourses were by him read in the Academy[28] of the Queen [Christina] of Sweden, and ready for the press. I had almost forgot to tell you that I saw at *Bononia*, a very fine preparation of the human organ of hearing, […] the author thereof Senior *Valsalva* told me he would speedily publish something, not being satisfy'd with what is already made publick upon that subject. (*Phil. Trans.* 1700b: 613-614)[29]

Letters such as Silvestre's were frequently sent in this period both by English and Italian correspondents allowing the Society to be well informed on the state of Italian medical research. However, only Silvestre's letters (EL/S2/26, EL/S2/27 and EL/S2/28) were translated (from French) and inserted in the *Transactions* in full.[30]

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[28] Queen Christina's court in Rome was a lively centre of natural philosophy. She extended her patronage to the Accademia Fisica-matematica, founded in 1678 by Giovanni Giustino Ciampini (Cook 2004: 4). Christina's court was frequently visited by learned travellers including Pierre Silvestre.

[29] Italians mentioned in this paper: Marcello Malpighi, Giangirolamo Sbaragli, John Baptista Triumphetti (Giovanni Battista Trionfetti), Giovanni Maria Lancisi, [?] Sanguinetus, Antonio di Monforte, Monsieur Gimelli (Giovanni Francesco Gemelli Careri), Lorenzo Bellini, Giovanni Alfonso Borelli and Antonio Maria Valsava.

[30] This statement is limited to the period under study and to letters regarding medical topics. In some papers, brief pieces of information taken from the letters were sometimes reported by the editor.

In the second letter, Silvestre provides more detail about his travel and the people he met, sending over to England books and natural curiosities. He digresses in further, at times mundane, detail, which allowed the Fellows to gain a picture of the Italian cultural scene. For instance, he explains that in Padua "he enquir'd for the most eminent men of that University" but he unfortunately found that most of them were out of town since it was vacation time. He expresses his appreciation for Giangirolamo Sbaragli, but found that he was disliked because of his antagonism towards Malpighi. He visited the Collegio Romano and the Museum Kircherianum. In Naples he was surprised to find "a great many persons applying themselves to the corpuscular philosophy and mathematicks". He also met

> Signior Joseph Valeta, a gentleman who has a very good library, and has learnt a little English, on purpose to understand English books, for which he has a very great value. He lent me a manuscript of his that he will speedily publish. His design is to commend and encourage the Experimental Philosophy. (*Phil. Trans.* 1700c: 629)[31]

He goes on listing the names of Italian physicians and other men of learning, some already known and some new, providing detail as to their lives and careers. For instance, he says that Bellini had become Professor Emeritus and physician to the Grand Duke of Tuscany and that Del Papa had become physician to the Cardinal De Medici. He then goes back to more specifically medical curiosities describing some wax carvings of the muscles and internal viscera that he had been shown in Genoa. He praises them saying that he could hardly distinguish them from the parts of a real corpse and emphasises the utility that such material could have in the study of medicine:

> If there was half a dozen of these wax carvings, in several views, to shew at any time the structure of humane bodies, it would not only shorten the study of anatomy, but besides make it a great deal less nauseous to the beginners. (*Phil. Trans.* 1700c: 630-31)

[31] Italians mentioned in this paper: Pompeio Sacchi, Francesco Spoleti, Cavalier Soranzo, Domenico Guglielmini, Giangirolamo Sbaragli, Marcello Malpighi, Monsignor Luca Tozzi, [?] Sinibaldi, Giorgio Baglivi, Raffaele Fabretti, Filippo Bonanni, Paolo Boccone, Tommaso Cornelio, Leonardo di Capua, Giuseppe Valletta, Tommaso Donzelli, Anello di Napoli, Ottavio Sandoro, Giovanni Battista Garnieri, Nicola Partenio Giannetasio, Lorenzo Bellini, Giuseppe del Papa, Giuseppe Zambeccari, Pascasio Gianeti, Antonio Magliabechi, Vincenzo Viviani and [?] Colechiani.

He closes with some of his own observations on a distemper that was frequent in Lombardy and Savoy and with a list of natural curiosities that he sent with the letter.

It is thanks to letters such as the above that the Society was informed on the state of learning in Italy and all over the world. Learned men and their work would eventually come to the knowledge of the Fellows and physical samples of natural curiosities added a further sense of truthfulness to the reports.

5. Conclusions

The linguistic analysis of Italian-research-based papers published in the *Philosophical Transactions* revealed that Italian and English rhetorical practices in communicating medicine did not seem to differ considerably between the two cultures. Indeed, both translated papers – which were more representative of Italian medical discourse – and reported papers made extensive use of forms of encomia, elaborate politeness and witnessing. A high level of narrativity was present in more than half of the articles, and especially among reported papers. Moreover, more than half of the group was characterised by an author-centred approach to research, with the translated articles being slightly less than the reported ones. A small group of articles were not labelled as author-centred but rather tended towards an informational writing style. English medical reports of Italian research were this time slightly more than the translated papers, making the differences between the two text types in terms of authorial presence within the narration irrelevant. Both Italian and English medical writings thus show that the role of the researcher was still of primary importance, yet there already was a tendency towards reducing the author's thoughts and opinions in order to foreground the object of research. The comparison of the linguistic features of translated and reported papers thus helped reveal a series of common practices among the English and Italian medical communities. Given the shared use of Latin as the international language of science roughly up until this time, it is not surprising that the rhetorical strategies employed by scholars of different countries did not differ considerably.

Most papers tended to specify place names of where a given natural philosophical event was observed or took place. Toponyms were more numerous in reported papers and travel accounts. This aspect can be associated with the tendency to report in detail for the building of a discourse of fact.

Italian medical discourse was mostly framed by positive-evaluative nomination and predication strategies or was presented neutrally by simply reporting or translating the Italian piece of research. The representation of Italian medical discourse can therefore be considered to be mostly positive or, in fewer cases, neutral. Yet, the frequent use of attribution would seem to suggest that, although the Fellows admired Italians and their research, they were cautious when presenting it to the *PT*'s readership.

The critical aspect of the analysis with the integration of further intertextually related sources, revealed that what is portrayed in the *PT* papers is quite representative of the management of English and Italian relations behind the scenes. Published papers were often heavily edited but this process generally made the content of letters more concise and free of irrelevant elaborate formalities and digressions.

Finally, the content of the papers showed how the Society treasured any piece of information coming from Italy. Oldenburg moreover exploited the example of foreign studies to encourage further research in order to obtain multiple perspectives and therefore a more thorough knowledge of nature.[32] He never stopped stressing the importance of a cooperation of all natural philosophers for the attainment of a universal natural history based upon fact.

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Phil. Trans.
1665 Some Observations of Vipers. 1: 160-162.

[32] An example can be seen in *Phil. Trans.* 1670b: 2095: "this Inquisitive Anatomist['s studies], which the Publisher […] thought fit to insert in these papers, thereby to administer occasion to our dextrous Anatomists here, with all possible diligence and care to pursue, jointly with that Italian Professour [Lorenzo Bellini], those important inquiries about such considerable subjects, as have been above related; comparing with their researches in this matter the many notable Experiments lately published".

Phil. Trans.
1666a An Account of Some Experiments of Injecting Liquors into the Veins of Animals, Lately Made in Italy by Signior Fracassati Professor of Anatomy at Pisa. 2: 490-491.

Phil. Trans.
1666b An Account of Some Discoveries Concerning the Brain, and the Tongue, Made by Signior Malpighi, Professor of Physick in Sicily. 2: 491-492.

Phil. Trans.
1666c An Experiment of Signior Fracassati upon Bloud Grown Cold. 2: 492.

Phil. Trans.
1666d A Confirmation of the Experiments Mentioned in Numb. 27. to Have Been Made by Signor Fracassati in Italy, by Injecting Acid Liquors into Blood. 2: 551-552.

Phil. Trans.
1666e An Account of the Synopsis Novae Philosophiae & Medicinae Francisci Travagini Medici Veneti. 2: 555-556.

Phil. Trans.
1668 Two Extracts out of the Italian Giornale de' Letterati; The One, about Two Experiments of the Transfusion of Blood, made in Italy, the Other, Concerning a Microscope of a New Fashion, Discovering Animals Lesser Than Any Seen Hitherto. 3: 840-842.

Phil. Trans.
1669 An accompt of some books. Marc. Malpigii, phil. & Med. Bononiensis dissertatio epistolica De Bombyce, Regia Societati dicata. Printed at London for Iohn Martin and Iames Allestry printers to the R. Society [...]. 3: 987-1000.

Phil. Trans.
1670a An Extract of an Italian Letter Written from Venice by Signor Jacomo Grandi, to an Acquaintance of His in London, Concerning Some Anatomical Observations, and Two Odd Births: English'd by the Publisher, as Follows. 5: 1188-1189.

Phil. Trans.
1670b An Extract Out of a Lately Printed Epistolary Address, Made to the G. Duke of Toscany Touching Some Anatomical Engagements, of Laur. Bellini, Ord. Anat. Prof. at Pisa. 5: 2093-2095.

Phil. Trans.
1671a An Extract of a Latin Letter, Written by the Learned Signior Malpighi to the Publisher, Concerning Some Anatomical Observations, about the Structure of the Lungs of Froggs, Tortoises, & c. and Perfecter Animals; As Also the Texture of the Spleen, & c. 6: 2149-2150.

Phil. Trans.
1671b An Extract Out of the 3d and 7th Venetian Giornale De Letterati, Concerning the Formation of Faetus's. 6: 2224-2227.

Phil. Trans. 1672a An Extract of a Letter Written to the Publisher by Mr. Thomas Platt, from Florence, August 6. 1672. Concerning Some Experiments, There Made upon Vipers, Since Mons. Charas His Reply to the Letter Written by Signor Francesco Redi to Monsteur Bourdelet and Monsieur Morus. 7: 5060-5066.

Phil. Trans. 1672b An Extract of a Letter, Written March 5. 1672 by Dr. Thomas Cornelio, a Neapolitan Philosopher and Physician, to John Dodington Esquire, His Majesties Resident at Venice; Concerning Some Observations Made of Persons Pretending to be Stung by Tarantula's: English'd Out of the Italian. 7: 4066-4067.

Phil. Trans. 1672c Two observations about stones found, the one in the bladder of a dogg, the other fastned to the back-bone of a horse: both mentioned in two Roman journals de letterati. 7: 4095-4095.

Phil. Trans. 1684 Praeclarissimo et Eruditissimo Viro D. Jacobo Sponio Medicinae Doctori, et Lugdunensi Anatomico Acuratissimo. Marcellus Malpighius S.P. 14: 601-608, 630-646.

Phil. Trans. 1694 An Account of Books. 18: 33-40.

Phil. Trans. 1695 Extract of a Letter from Jean Marie Lancisi, Prof. Anat. Rom. To Mr. Bourdelot, Giving an Account of Mr Malpighi, the Circumstances of His Death, and What Was Found Remarkable at the Opening of His Body. Being Art. I. of the 3d. Journal of Brunets Progres de la Medecine. 19: 467-471.

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Phil. Trans.
1700d An Account of the Strange Effects of the Indian Varnish. Wrote by Dr Joseph Del Papa, Physician to the Cardinal De Medices, at the Desire of the Great Duke of Tuscany. Communicated by Dr William Sherard. 22: 947-951.

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