

Girolamo Manfredi's *Il Perché*: I. The *Problemata* and its medieval tradition

Antònia Carré and Lluís Cifuentes

Summary. This article is the first part of a two-part essay on the sources and reception of the *Liber de homine (Il Perché)* by Girolamo Manfredi, a famous doctor, astrologer and professor of the University of Bologna who died in 1493. Consisting of a *regimen sanitatis* together with a treatise on physiology, the *Liber de homine (Il Perché)* was composed in 1474 in Italian and intended for a specific audience: the elites of urban society and medical practitioners not trained in universities. Notably, Manfredi was the first author within the *problemata* genre to use a vernacular language. In both parts of this essay, Manfredi's treatise will be analysed in the context of the vernacularisation of knowledge and the medicalisation of European society in the Middle Ages and the Renaissance. This first article will examine its relationship with the ancient genre of Natural Questions, particularly the pseudo-Aristotelian *Problemata*.

Keywords. *Liber de homine (Il Perché)*; Girolamo Manfredi; medicine; physiology; *Problemata*; Ps.-Aristotle; *regimen sanitatis*; vernacularisation

Introduction

The involvement of elites (e.g., the lay nobility, the ecclesiastic nobility, and the bourgeoisie) and their instruments of government (monarchy, church, civic institutions) in the creation of a new medical system in Latin Europe of the late medieval period is a well-known fact. The cities, gover-

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ned by a bourgeoisie eager for solutions in such a critical area as public health, played a key role in the process of the wide dissemination of university medicine, a process which is referred to – using a concept typical of modern medical sociology – as the medicalisation of society. Indeed, the activity of the bourgeoisie was a key factor in the development of two cultural and scientific processes of the last decades of the thirteenth century. On the one hand, they helped to generate among all sectors of the newly emerging urban society a renewed interest in the problems of health and illness, which they believed to be rationally intelligible natural phenomena rather than divine punishments; and, on the other hand, they promoted a medical model based on the training offered at universities, whose academic degrees were increasingly added to the examinations and licences that were required of most medical practitioners outside the universities¹.

Similar was the situation in Italy, where this new rational medicine was born – in the pre-university centres of Salerno and Montecassino² – and where important medical figures emerged with close links to their specific urban contexts: for example, Teodorico Borgognoni (1206-1298), a bishop and surgeon in Bologna³; Taddeo Alderotti (1223-ca. 1303), who taught in

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¹ The phenomenon impacted Latin Europe in the thirteenth and fourteenth centuries and along the Northwestern coast of the Mediterranean from Sicily to Valencia. For a summary of a general nature, see particularly Siraisi, 1990; and French, 2003.

For more depth, see the works collected in García Ballester *et al.*, 1994; and French *et al.*, 1998; also see the regional studies of Jacquart, 1981, 1998; Park, 1985; Agrimi and Crisciani, 1988; McVaugh, 1993; and García Ballester, 2001. On the role of the municipalities in the institutionalisation of medical care, see also Nutton, 1981.

² Montecassino and Salerno are a good example of the transition between early medieval cultural centre models (monastic) and the late medieval (urban). On the so-called Salerno school, which flourished between the tenth and twelfth centuries, see Kristeller, 1986 and, recently, Jacquart and Paravicini, 2007 (and the other volumes produced in this collection called Edizione Nazionale La Scuola Medica Salernitana). On the translations made by Constantine the African at the Benedictine Abbey of Montecassino in the eleventh century, see Jacquart and Micheau, 1990, and Burnett and Jacquart, 1994.

³ See the bibliographic notes of Alecci, 1960-; Wallace, 1970; and Keil, 1977-. On the diffusion of the work of Teodorico in Catalan, see Cifuentes, 1999, with abundant bibliography.

Florence⁴; or Pietro d'Abano (1250-1315), who taught in Padua after passing through Paris, Montpellier, and the cities of north Italy, the other great focus of academic medicine in the medieval Latin West⁵.

Beginning in the thirteenth century, both elites and practitioners trained outside the universities fed a growing demand for manuals and practical guidebooks written (or translated) not in Latin – by now an inaccessible academic language – but rather in the more commonly spoken languages, that is to say, the vernacular or vulgate tongues. These manuals and guidebooks satisfied their readerships' immediate objectives of gaining knowledge and appearing knowledgeable, as well as their ulterior goals of acquiring prestige and achieving sure social and professional advantages. This process, which was not at all limited to the field of health and medicine, is known as the vernacularisation of knowledge. In the field of medicine, it was, without doubt, the most vigorous motor of the phenomenon of medicalisation mentioned above, as well as the key to the success of the new medical system⁶.

As demand increased, the copying and marketing of books – above all those in the vernacular languages – became a lucrative business for all those involved, from scribes and professional copiers to booksellers and agents; the dimensions of this industry would be multiplied by the printing press, albeit with profound structural changes. This remarkable diffusion of manuscript books, and later printed books, in the late Middle Ages and the early Renaissance helped to increase the prestige of medicine and enhance the social and professional status of university doctors. As one of the most widely distributed types of medical works in the vernacular language, the *regimina sanitatis* are also one of the most remarkable. They addressed a non-university public which consisted of kings, nobles, and bourgeois elites, yet they were also appreciated by physicians.

Remaining within the context of Italy, clear proof of the preceding statements is offered by the multiple editions of the works of some medical authors. Examples include the doctor and astronomer of Lorenzo “the Magnificent”, Pierleone da Spoleto⁷, who was linked to Florence and who

⁴ Siraisi, 1981.

⁵ Among the abundant bibliography on Pietro d'Abano, see Paschetto, 1984; *Pietro d'Abano*, 1985; and Olivieri, 1988. See, in particular, Siraisi, 1973; and Jacquart, 1981, 1998.

⁶ See the studies collected in Crossgrove, Schleissner and Voigts 1998-2000; Taavitsainen and Pahta, 2004; and Carlino and Jeanneret, 2009. See medicine in a wider vernacular context in Gualdo, 2001; and Librandi and Piro, 2006. For a linguistic area case-study, see Cifuentes, 2002 (summarized in Italian in Cifuentes, 2003).

⁷ Rotzoll, 2000; Rotzoll, 2001; and Bacchelli, 2001.

drowned in 1492, shortly after the death of his protector; the famous doctor and botanist Castor Durante (1529-1590), linked to papal Rome⁸; and the doctor and astrologer Girolamo Manfredi (*ca.* 1430-1493), who enjoyed fame and success in Bologna. The present study focuses on the reception of one of the most famous works by this last author.

In our previous publications, we identified an important, previously unknown Catalan translation of Girolamo Manfredi's *Liber de homine (Il Perché)*⁹, and we studied the circulation of both the Italian original and its Spanish translation¹⁰. The Catalan and the Spanish translations are the only translations undertaken outside the Italian linguistic context. This two-part article will analyse the primary sources of Manfredi's work. Under consideration are an original Italian edition of this work¹¹ and the Catalan and Spanish translations edited by A. Carré¹². It is important to underline, as we have done in our previous publications, that Manfredi's work addressed a non-university and non-medical public, among whom it had great success well into the modern era. *Il Perché* is therefore a fascinating example of the diffusion of medical culture that was appreciated by its readership not only because of the subjects it dealt with and its pedagogical presentation of those subjects, but also because of the prestigious sources it summarised.

Girolamo Manfredi and his Il Perché

The doctor, astrologer, and professor of the University of Bologna Girolamo Manfredi¹³ came from a Bolognese family of humble origins that had been producing doctors since the thirteenth century. Born around 1430, he became rich and famous in his hometown, which was then one of the main university centres of the West and under the rule of Giovanni II Bentivoglio, a life-long patron of Manfredi.

Girolamo Manfredi initiated his studies in the liberal arts in Bologna¹⁴ as a *pauper studens*, and he completed a doctorate in Ferrara in 1455.

⁸ Durante da Gualdo, 1982.

⁹ Carré and Cifuentes, 2001.

¹⁰ Carré and Cifuentes, 2006.

¹¹ Manfredi, 1988.

¹² Manfredi, 2004; and Manfredi, 2009.

¹³ Thorndike, 1923-1958, 2, pp. 458-465; Manfredi, 1988; and Duranti, 2008.

¹⁴ Trombetti Budriesi, 1990, relates the Manfredi's and Andrea Barbazza's characters through an incident caused by a prediction in 1477 but their relationship is circumscribed within the university framework of the city of Bologna.

Beginning that same year, he took a post as lecturer in logic and philosophy at the University of Bologna. A few years later, in 1459, he received the ecclesiastic tonsure. After gaining a doctorate in medicine in Parma in 1466, he was named professor of astrology at the University of Bologna, where he would teach medicine and astrology until his death.

We know that he practiced medicine since he mentions in his writings that he attended plague victims. But his professional and social prestige derived, above all, from his practice of astrology, in which he acquired an outstanding reputation. Beginning the academic year of 1476-1477, the University of Bologna commissioned him annually to make predictions and astrological tables (*faciat iudicium et tacuinum*). He was considered to be the best living astrologer in Italy, and princes and cities vied for his services. Notably, he was even given rather delicate tasks, such as choosing the most favourable moment for the departure from Ancona of the ships destined for the crusade against the Turks promoted by Pope Pius II in 1464, a crusade which was abruptly interrupted by the death of the pope. At times, his predictions instigated scandals and controversies; Galeazzo Maria Sforza reacted with hostility because of an unfavourable prediction, and Manfredi engaged in bitter disputes with Giovanni Pico della Mirandola. These problems were perhaps the reason Manfredi temporarily vacated the astrology professorship for three years (1483-1486), during which time, however, he continued to teach medicine at the university.

He was already a successful man when, in 1486, he married Anna Fontana, a descendant of a prominent Modenese family with whom he would have two children (the couple legitimated Manfredi's previous natural daughter¹⁵). As we can see from the will which he made after predicting his own death, Manfredi had attained economic security: he had a house in Bologna, two more outside the city, a library with around a hundred books (of which forty dealt with medicine and philosophy, seventeen dealt with astrology, and fourteen poetry), as well as other items. Nevertheless, in his last will he asked to be buried under the light of the stars and in privacy, thus avoiding the pomp that would have been consonant with his status. He died at the end of the summer of 1493.

Manfredi authored several works, in the main medical and astrological, whose circulation had benefited from the newly invented printing press before his death. The earliest of his works was entitled *Liber de homine*, although it is more well-known as *Il Perché*. Because it was intended for a wide public, this medical treatise was written in Italian and not Latin. In

¹⁵ Duranti, 2008, pp. 11-25.

1474, it became one of the first works in medicine ever printed in Bologna, an operation carried out by Ugo Ruggieri and Domenico Bertocchi¹⁶. The work was printed again in Naples in 1478 by Francesco del Tупpo with an attribution to Albert the Great¹⁷. Before the end of the fifteenth century, it was printed once more in Bologna in 1497; this edition was a reprint of the original 1474 edition. As we shall see in part II, by the year 1650, another twenty-three editions of this treatise had been printed in various Italian cities. After writing this book, Manfredi, together with Galeotto Marzio, Cola Montano and Pietro Bono Avogaro collaborated on the production of a Latin edition (Bologna, 1477) of Ptolemy's *Geographia*, the first edition of this work in which maps were included¹⁸. Later, Manfredi returned to the vernacular to write two medical treatises: *Trattato della pestilenza* (Bologna, 1478), later printed in Latin (Bologna, ca. 1482)¹⁹, and *Anathomia* (1490)²⁰. In the former, written in accordance with medical astrology, Manfredi explains his use of Italian with reference to his desire to be useful to his fellow man, stating that

moved by compassion and mercy we have composed this very worthy little work in the vernacular, so that it may be accessible to everyone because of the great usefulness that results from all its points, since no qualified physician wants to visit those infected with the plague on account of the great danger of these visits²¹.

¹⁶ This is the edition transcribed in Manfredi, 1988, a large format volume with numerous illustrations which was published due to the celebration of the ninth centenary of the foundation of the University of Bologna. We must say that the transcription offered contains blatant errors, like the absence of some sections (I.III.11) or wider fragments still (I.IV.13; I.IV.57), and the studies which accompany it inexplicably omit the edition in Naples of 1478. Hellinga, 1992-, Unit 15, MI 31.

¹⁷ Helinga, 1992, Unit 13, MI 95.

¹⁸ Klebs, 1938, note 812.2; and Stillwell, 1970, note 212. A reproduction in Hellinga, 1992-, Unit 3, ip 01082000. Galeotto Marzio was the author of a work entitled *De homine* and printed in Bologna in 1471 (Hellinga, 1992-, Unit 13, MI 46); Manfredi undoubtedly knew of this cumbersome summary of divination techniques: metoposcopia, physiognomy and palmistry. In 1477, Marzio was accused of heresy for his *De incognitis vulgo* (Manfredi, 1988, p. 17).

¹⁹ Klebs, 1938, notes 655-56; Stillwell, 1970, note 447. The 1478 edition can be consulted in Hellinga, 1992, Unit 15, MI 32.

²⁰ The text, omitted in the repertoires of scientific incunabula, was partially published by Singer, 1917.

²¹ "Mossi da compassione e pietà habiamo composto questa dignissima opereta in vulgare, aziò sia comune a ciascuna persona per la grande utilità che risulterà da questa in ogni loco, perché invero nissuno perito medico vole ponerse a medicare pestilentiati per il grande

His annual astrological forecasts²², printed repeatedly (from 1475 up to the seventeenth century) in Bologna and other places in Italy, both in Latin (*Ephemerides astrologicae operationes medicas expectantes*) as well as Italian²³, made him very famous²⁴ and considerably wealthy. He was also the author of a collection of astrological aphorisms entitled *Centiloquium de medicis et infirmis* (editions include: Bologna, 1483 and 1489; Venice, 1500; and Nuremberg, 1530)²⁵. In addition to all of this he wrote a commentary to Ptolemy's *Quadripartitum*, which Manfredi quotes in his *Trattato della pestilenza*, chapter 46²⁶. Two apparently apocryphal works have frequently been ascribed to him: some Latin verses with an astrological subject and a brief astrological treatise entitled *Embolismarum ratio*, which ought instead to be attributed to two homonymic contemporary astrologers who, like Manfredi, lived in Bologna²⁷.

The *Liber de homine*, or *Il Perché*, the work that is the focus of this article, is divided into two books: the first one, dedicated to the preservation of health²⁸, is a *regimen sanitatis*, while the second one constitutes a treatise on physiognomy. Both genres meet the most orthodox philosophical and medical traditions of the period. *Regimina sanitatis*, or health regimes, a medical genre with extraordinary diffusion in early medieval Latin Europe, were practical hygiene manuals conceived in order to guarantee the maintenance of individual and, in some cases, collective health and the health of specific patrons. They soon gained a wide diffusion among very diverse social strata that were avid for practical guides that provided access to the prestigious Galenic medicine of the universities²⁹. Physiognomy treatises, greatly

periculo che achade nel visitare.” (Girolamo Manfredi, *Trattato della pestilenza*, Bologna, 1478, in Hellinga, 1992-, Unit 15, MI 32, proemio 2, according to Manfredi, 1988, p. 42).

²² Serra-Zanetti, 1952; and Trombetti Budriesi, 1990.

²³ Klebs, 1938, note 654.

²⁴ Proof of Manfredi's renown is found in the evaluation of his astrological knowledge by his close contemporary, Giovanni Garzoni. Garzoni, who was a professor of medicine at the University of Bologna between 1466 and 1505 (coinciding with Manfredi's time there), cited Manfredi as an authority in these matters in his work *Laus astrologiae*. See Kibre, 1967, esp. p. 510.

²⁵ Klebs, 1938, notes 657 and 826.3 (1489 and 1500 editions). The 1483 edition, in Hellinga, 1992-, Unit 15, MI 30.

²⁶ Manfredi, 1988, p. 21, n. 5.

²⁷ Thorndike, 1923-1958, 4, p. 461.

²⁸ The table in the 1474 edition, written in Latin, begins with: “Liber De Homine: cuius sunt libro duo. Primus liber de conseruatione sanitatis” (Book on the man, which has two books. First book on the preservation of health) (Hellinga 1992-, Unit 15, MI 31, 2r).

²⁹ For the complete exposition of the medical genre of *regimina sanitatis* see the

valued by the ancient Greeks and Romans, were gnoseological and moral studies reflecting the philosophical conviction that an individual's passions and disposition depended exclusively on his or her physical characteristics and not a moral determination – a concept which gave rise to the belief that through will-power, these innate characteristics could be modified³⁰.

The health regime in Manfredi's *Il Perché* is divided into seven chapters that treat each of the Galenic six non-naturals³¹. Notably, the order in which Manfredi dealt with these non-naturals does not follow the orthodox sequence established by Johannitius' *Isagoge* and Haly Abbas' *Pantegni*³². Although the majority of health regimes follow the orthodox sequence, there are, however, a number of exceptions to this rule³³. In Manfredi's work, the first chapter is dedicated to food, the second to drink, the third to sleep and vigil, the fourth to physical exercise, the fifth to evacuation and repletion (including emetics and purges, urine, faeces, sweat, humoral secretions, menstruation, semen and intercourse), the sixth to the air that surrounds us, and the seventh chapter to the passions of the soul.

The first of the seven chapters of the health regime, dedicated to food, begins as follows:

I.I.1. Why do excesses of the things needed for life and insufficiencies in our modes of living cause illness?

introductory study by Gil Sotres in Arnaldus de Villanova, 1996; and Nicoud, 2007.

³⁰ On physiognomy in general, see Caro Baroja, 1988. For its origins, see Förster, 1893; Evans, 1969; and Swain, 2007, which focuses on medieval Islam. On the institutionalisation process of physiognomy as a science, which begins in the twelfth century and reaches its acme in the thirteenth century, see Agrimi, 2002.

On the physiognomic treatise attributed to Aristotle, see Currie, 1985. On the *Questions* based on the pseudo-Aristotelian physiognomy treatise written by Jean Buridan, dean of the University of Paris and one of the most important commentators on Aristotle in the fourteenth century, see Thorndike, 1943, where the three known manuscripts of the work by Buridan are studied and other commentators are quoted.

³¹ About the origin and evolution of this medical concept, see Rather, 1968; and García Ballester, 1993.

³² The order transmitted by the *Isagoge* is the following: air; exercise and rest; food and drink; sleep and vigil; intercourse; and accidents of the soul. In the *Pantegni* appear: air; exercise and rest; food and drink; sleep and vigil; repletion and inanation (which includes intercourse); and accidents of the soul. See Arnaldus de Villanova, 1996, p. 38.

³³ This is the case of the *Liber de conservanda sanitate* attributed to John of Toledo (thirteenth century), of the regime which Maino de Maineri wrote in Italia for Antonio de Flisco in 1339, of the regime of the fourteenth century attributed to Girard de Solo and of that written in Latin by Benedetto di Resguardati in the second half of the fifteenth century (Arnaldus de Villanova, 1996, pp. 62, 72, 89 and 91).

The things that are necessary for life are, first, food and drink; second, sleep and vigil; third, exercise and rest; fourthl evacuation and repletion; fifth, the passions of the soul; and sixth, the surrounding air. If these things are temperate and largely similar to our bodies, the balance and temperament of the elements within us are preserved.

If they are intemperate, excessive and in no way similar to our bodies, they disturb the balance within our bodies. And health is nothing else but the temperateness and balance of our complexion, where all of the body's operations begin. Conversely, illness is intemperance and unbalance, and it results in the cessation or insufficiency of the body's operations.

Excess in eating and drinking, waking or sleeping, exercising or resting, and evacuation or replenishing; superfluous passions of the soul; or immoderate climes: all being intemperate, they are all therefore capable of provoking an imbalance in our complexion and for this reason they cause illness³⁴.

The chapter is interrupted after question 59 by a long fragment in decasyllabic verses that fills nineteen pages. This fragment takes into consideration diverse types of meat, vegetables, bread, entrails, fish, poultry, fruit, aromatic herbs, oriental spices and drinks (namely, wine, beer, water, and milk). By in large, it offers brief descriptions of the characteristics of the foods and drinks in question, their nutritional and therapeutic effects, and the type of constitution for which they are best suited. We have not been able to identify the origin of this fragment, although it can be said that it largely conforms with the advice found in the *tacuina sanitatis* produced through the previous centuries³⁵ and the concepts of the *Regimen sanitatis* of the so-called Salernitan School³⁶; moreover, the fragment does not diverge from the standard recommendations regarding those foods that typically appear

³⁴ “I. I. 1. Perché el soperchio nele cose che noi vivemo e lo indebito modo del viver nostro induce in noi egritudine? Et sono le cosse necessarie a nostra vita, prima el cibo e poto, seconda è sonno e vigilia, terza exercitio e quiete, quarta evacuatione e repletione, quinta le passion dell'animo, sexta è l'aire che ne circonda. Se queste cose adunche sono temperate e debitamente approximate ai corpi nostri, conserva la equalità e temperanza degli elementi che sono in noi. E se sono distemperate et excessive e non cum modo aproximate, distemperano i corpi nostri. Et la sanità non è altro che temperamento et equalità di complexione in noi, per la quale tucte nostre operation debitamente procedeno. E per contrario la egritudine è distemperamento et inequalità, per la quale in noi esse operatione manchano et indebitamente procedeno. Adonche il superfluo mangiare e bere, vegliare o dormire, exercitio o riposo, evacuation o repletion, over superflue passione de animo, over l'aire distemperato, tucte queste cose di superchio distemperano la nostra complexione, e perhò fanno egritudine.” (Manfredi, 1988, p. 68).

³⁵ Elkhadem, 1990; Unterkircher, 1967; García Ballester, 1974; Cogliati Arano, 1976.

³⁶ De Renzi, 1852-1859; Sinno, 1979.

in health regimes³⁷. Also, it should be pointed out that Manfredi's own text includes references to such foods as camel, lion, ostrich and bear meats, as well as camel milk, all of which indicate his direct or indirect borrowing from an Arabic source³⁸.

Devoted to things relating to the "composition of man"³⁹, the treatise on physiognomy in *Il Perché* is divided into thirteen chapters that pose questions regarding hair (chapter 1), the head (ch. 2), the eyes (ch. 3), the mouth (ch. 4), the ears (ch. 5), the nose (ch. 6), the hands and arms (ch. 7), the feet (ch. 8), the neck and back (ch. 9), the voice (ch. 10), the internal organs (ch. 11), the stomach, thirst, and hunger (ch. 12) and the genitals (ch. 13). The subjects dealt with in these chapters are standard in treatises on physiognomy, although they appear in a sequence that differs from the orthodox one (first the hair, then the forehead, ears, the space between the eyebrows, the eyes, nose, mouth, lips, teeth, tongue, and finally the rest of the body down to the feet); moreover, to these physiognomic topics, Manfredi added some additional subjects that are more properly related to palmistry.

Typical of Manfredi's approach to these physiognomic issues are 'Question eleven in the fourth chapter, in which it is argued that the size of the face determines the individual's behaviour, and 'Question three' in the seventh chapter, which relates the structure of the hands to intelligence:

II. IV. 11. Why are those with small faces bad-mannered, hot-tempered and flatterers?

A small face implies a small head, which is a sign of the brain's bad complexion, as it is often said; a small head indicates the heat of the heart, because a small brain cannot sufficiently correct the warming of the heart. Therefore, a small face indicates a hot complexion and bad manners.

II. VII. 3. Why do very soft and delicate hands indicate great wisdom and a strong intellect?

A man's greatest point of temperateness is located in the palm of his hand, and to a lesser degree in the rest of the hand, because touch belongs more to it than to all the other members. And because touch consists in the temperament of the elements, given that the more temperate a man is, the more acute his sense of touch, it is therefore in the hand where a man's complexion is more manifest than anywhere else. Thus, if the hand is very soft, temperate, and subtle in humours and spirits, this indicates wisdom and intellectual

³⁷ Adamson, 1995.

³⁸ Manfredi 2009, pp. 48-51.

³⁹ "Liber secundus de causis in homine circa compositione eius" (The second book on the reasons for the composition of man) (Hellinga 1992-, Unit 15, MI 31, 8r).

subtlety; but if the hand is rough and hard to the touch, we know that the complexion of the body consists of heavy humours and, likewise, unrefined spirits, and these are the cause of an unrefined intellect. Therefore, a subtle and very soft hand indicates the temperance of the complexion and the subtlety of humours and, consequently, fine intellect and subtle wit⁴⁰.

Il Perché, *a book of problems*

With his *Il Perché*, Girolamo Manfredi clearly intended to write an encyclopaedic compendium of a didactic nature on a variety of issues impacting on human health. This is confirmed by, first, the use of the vernacular language and not academic Latin and, second, the exposition of the entire work in the form of a question-and-answer format (totalling 568 questions). This traditional Aristotelian format, which Manfredi modified according to the practical system that was popular in scientific and scholastic education during the fourteenth and fifteenth centuries, was, despite its classical precedents, most closely linked with the heuristic methods that had taken root in the universities after having been introduced there by theology faculty⁴¹.

In this regard it is also relevant that the ancient genre of Natural Questions, which enjoyed an uninterrupted development from the twelfth to the seventeenth centuries, was widely used in pre-Salernitan medical lite-

⁴⁰ “II. IV. 11. Perché chi ha la faza piccola è cattivo caldo e aduttore? La faza piccola conseguita capo piccolo, il quale è segno de cativa complexione del cerebro, come è stato dicto; et al capo piccolo seguita calidità de cuor, perché il piccolo cerebro non può refrenare la calidità de esso cuore. Imperò ala faza piccola seguita calidità de complexione e malitia de costumi”.

“II. VII. 3. Perché le mano mollissime e sottile significano molta sapientia e buono intellecto? El maggiore temperamento che sia nel’homo è nela palma dela mano e poi nel residuo de quella, perché in quella consiste il toccare sopra tutti gli altri membri. E perché il toccare consiste nel temperamento degl<i> elementi, di che il segno è che quanto l’humo è più temperato ha migliore sentimento de tacto, imperhò nela mano se manifesta più la complexione del’huomo che in nessuno altro membro quanto al tocare. Perché se la mano è mollissima e che sia temperata e de sottili humori e spiriti, da che procede sapientia e sottilità de intellecto, e se la mano è aspera e dura nel tocare, iudicamo che la complexione de quel corpo è facta de humori grossi e similmente di spiriti rudi, de che procede grosseza de intellecto. La mano adonque sottile e mollissima significa temperamento de complexione e sottilità de humori e, consequentemente, bontà de intellecto e sottilità de ingegno” (Manfredi, 1988, pp. 208 and 213-214).

⁴¹ Bazàn *et al.*, 1985.

rature and Salernitan questions⁴². Following the rediscovery of the pseudo-Aristotelian *Problemata* and their derivatives around the year 1300⁴³, the genre had enjoyed an extended period of popularity, witnessed by the creation of different collections of problems that were widely diffused through manuscript copies and, later, with the printing press. Described by Aristotle as an exercise for dialectical training (*Topica*, 1.11)⁴⁴, these problems were posed – in accordance with the Aristotelian concept of philosophical knowledge as the knowledge of causes – as causal questions, that is to say, questions asking ‘why’, followed by answers.

There are two Latin textual traditions stemming from the Aristotelian *Problemata* that are known of, and these always appear separately in the manuscripts⁴⁵. In the first place, there are the *Problemata Aristotelis* themselves, which constitute a set of around 900 questions grouped into thirty-eight sections⁴⁶. Several Latin fragments of these (*vetustissima translatio*) circulated between the ninth and the thirteenth centuries, and served as the model for the Salernitan questions. The most complete Latin translation in existence of the *Problemata* was made by Bartolommeo da Messina between the years 1258-1266⁴⁷. Copies of Bartolommeo’s translation were accompanied by the *Expositio Problematum Aristotelis*, a commentary that Pietro d’Abano initiated in Paris and finished in Padua in

⁴² The concise question and answer format (*questiones et responsiones*), with few lines of dispute, was the teaching method which spread from Salerno throughout the schools of the Latin West becoming the basis of scholarly dispute about *physica*. On the genre of *questio* in texts on natural philosophy, see Lawn, 1963, 1979 and 1993. For the use of *quaestiones et responsiones* and the *Problemata Aristotelis* in Latin encyclopaedias in the fourteenth and fifteenth centuries, see Ventura, 2006.

⁴³ The *Problemata Aristotelis* are set of texts gradually assembled by the peripatetic school sometime before the sixth century A.D., and which were imitated by Soranus, Plutarch, Cassius the Iatropist and the pseudo-Alexander Aphrodisias. See above all Forster, 1928; Blair, 1999a; Lawn, 1963, chap. 7; and also D’Alverny, 1976. Leemans and Goyens, 2006, provides an abundant updated bibliography on the *Problemata* in different periods and languages. Cherchi, 2001, provides a brief history of the genre. For pseudo-Aristotle, see Krayer, 1995; and Krayer *et al.*, 1986. Latin Europe did not discover until the sixteenth century that the author of the *Problems* was not Aristotle: apparently, the Valencian Joan Lluís Vives was the first to point this out (Monfasani, 1999, p. 213).

⁴⁴ Blair, 1999a, p. 175.

⁴⁵ Lawn, 1963; and Blair 1999a, 1999b.

⁴⁶ See the Greek text, with a translation into modern French, in Aristote, 1991-1994. It should be pointed out that, as Blair (1999b, p. 190, n. 5) states, the author of this edition confuses the two textual traditions.

⁴⁷ See Marengi, 1962. In 1264, Moses ibn Tibbon translated the text from Arabic to Hebrew. See Sarton, 1927-1947, 2, pp. 849 and 860; Lawn, 1963, p. 96.

1310⁴⁸. A summary of this work, attributed to Walter Burley (*ca.* 1275-1345), is known to have circulated in England⁴⁹. Later, around 1399, Evrard de Conty, the physician of Charles V, translated the work by Pietro d'Abano into French, strictly separating the text from the commentary⁵⁰. In the first half of the fifteenth century, Giorgio da Trebisonda made a new Latin translation of the *Problemata*, but it circulated less than the one carried out in 1454 by Theodore of Gaza, who dedicated his translation to Pope Nicholas V (who had asked him to translate Aristotle's works) and reorganised the sequence of the problems. Theodor of Gaza's translation was diffused even more widely thanks to the printing press (printed editions include Mantua 1473, Venice 1475, etc.), although in this regard it should not be forgotten that in many of these editions, Gaza's translation was accompanied by Bartolommeo da Messina's commentary, as well as that of Pietro d'Abano, which shows once again that the oldest translations did not disappear from the cultural horizon with the advent of the printing press⁵¹.

Known by the first words of its incipit and consisting of 385 problems distributed into thirty-four sections, the *Omnes homines*⁵² is another impor-

⁴⁸ Pietro d'Abano defines the *problema* thusly: "Est enim questio difficilis aliquod continens quod disputatione solvendum quod et voraginem videtur" (For this is a difficult question which contains something to resolve a disputation which seems an abyss). Pietro d'Abano, *Expositio Problematum Aristotelis*, Paris, Bibliothèque Nationale, Lat. 6540, 1r, according to Cadden, 2001, p. 69, n. 10. On D'Abano's commentary, see Siraisi, 1970.

⁴⁹ For the existence of manuscripts with an abbreviated version of Pietro d'Abano's commentary, see Thorndike, 1955, who does not attribute this tradition to Burley. Cadden, 2001, with abundant bibliography, analyses the commentary by Pietro d'Abano and Burley's epitome focusing on the controversial fourth section relating to sexuality. Van der Lugt, 2006, reconsiders Burley as the author, but this question nonetheless remains open.

⁵⁰ On the French translation, directed to an unschooled audience and certain to have attained notable diffusion given that six manuscripts have survived, see Guichard-Tesson, 1989, and 2006.

⁵¹ On the Renaissance editions of the Aristotelian corpus, especially the *Problemata* and the *De animalibus*, monopolised by the versions of Theodor of Gaza and later by Aldo Manuzio (1495 and 1498), see Monfasani, 1999. For a general overview of the printed editions of works by Aristotle, see Krayer, 1995; and Schmitt, 1983. On Aldo Manuzio, see Lowry, 1978; and Zeidberg, 1998. For the Latin translations by Bartolommeo da Messina and Theodor of Gaza as well as Renaissance Latin commentaries on the *Problemata*, see Ventura, 2008.

⁵² *Omnes homines naturaliter scire desiderant, scribit Aristoteles, philosophorum princeps, primo Metaphysicæ* (All men naturally wish to know, wrote Aristotle, the prince of philosophers, in the first [book] of the *Metaphysics*). The reference to the first book of the *Metaphysica*, an essential book for any intellectual wanting to study natural philosophy, is correct. Blair 1999b, pp. 190-197.

tant textual tradition (some twenty medieval manuscripts and about a hundred editions from the modern era have been conserved)⁵³ that circulated under the title *Problemata Aristotelis*. It was compiled anonymously between the end of the thirteenth century and the beginning of the fourteenth, no doubt in Germanic regions. In testimony of its popularity are the many surviving translations of this text into German, French and English. Unlike the first textual tradition described above, this collection of problems avoids more complex explanations and simplifies the text by following the model of the *problemata* attributed to Alexander Aphrodisias. Because its structure allowed for various editorial adjustments, we can therefore compare the surviving copies to determine the extent to which the genre was subjected to deletions and additions that suited the requirements and tastes of either the copyists, their clientele, or the editors of the printed volumes; such manipulations are all the more evident in the vernacular versions of the work⁵⁴.

During the fifteenth and sixteenth centuries, various authors compiled collections of problems, in Latin as well as diverse vernaculars⁵⁵. Brian Lawn made reference to several Italian authors of these collections: Hieronimo Garimberto, Ortensio Lando, Bartolommeo Paschetti, and, of course, Girolamo Manfredi. The first of these composed *Problemi naturali e morali*, printed in Venice in 1549 and translated into French in 1559⁵⁶. Ortensio Lando (ca. 1512-ca. 1553) wrote *Miscellanæ questiones* in Latin, printed in Venice in 1550, which he later translated into Italian with the title *Quattro libri de dubbi con le solutioni a ciascun dubbio accommodate*, of which a translation was printed in Venice in 1552, and for which he drew upon the pseudo-Aristotelian *Omnes homines* with abundance⁵⁷ as well as Manfredi's *Il Perché*⁵⁸. Confirming the success of this Italian version are the several printed editions (Venice, 1555, 1556; Piacenza 1597), the French (1558) and English (1566, 1596) translations, and the imitations of the work during the sixteenth century, such as the *Dubbi morali et naturali* (Genoa, 1581) by Bartolommeo Paschetti (fl. 1578-1616), a work which quite nearly constituted a complete

⁵³ The latter is dated 1686; see Blair, 1999b, p. 188.

⁵⁴ Blair 1999b studies the different Latin editions of the text, its publishing variations, and its translations.

⁵⁵ Lawn, 1963, esp. chps. 7 and 9.

⁵⁶ Lawn, 1963, p. 138.

⁵⁷ *Quattro libri de dubbi con le solutioni a ciascun dubbio accommodate*. La materia del primo e naturale, del secondo e mista (benche per lo piu sia morale) del terzo e amorosa, & del quarto e religiosa. See Lawn, 1963, p. 101, 139. About the author, see Melzi, 1848-59, 2, p. 391.

⁵⁸ Zanotti Carney, 2008.

translation of the *Omnes homines*. The Castilian Jerónimo Campos also imitated it in his *Sylva de varias questiones naturales y morales* (Antwerp, 1575)⁵⁹.

With regard to Girolamo Manfredi and his *Liber de homine* – the first in the *problemata* genre to employ the vernacular language⁶⁰ – Brian Lawn pointed to the content of the work and its relationship with the literary genre of problems:

It will be seen that the contents cover roughly the same ground as do those of the pseudo-Aristotelian *Problems*, and indeed many of the questions are nothing more than brief epitomes of these problems. But Manfredi has added much new material, culled from later sources, particularly in the chapters dealing with dietetics, which contain a long didactic poem on this subject. Again, although many of the questions are Salernitan, through having been derived from common Greek sources, the answers do not correspond to the Salernitan ones, being either pseudo-Aristotelian, or derived from the later Arabic-Latin translations⁶¹.

It is difficult to venture a hypothesis as to exactly which Latin translation Manfredi used as the basis for his collection of problems. Among his potential sources are also the collections by the pseudo-Alexander Aphrodisias and Cassius the Iatropist. But we can at least try to demonstrate, albeit in a general way, the ways in which Manfredi manipulated his textual source.

Girolamo Manfredi trained professionally in northern Italy (Bologna), the area where the didactic method of the *quæstio* had attained the status of an autonomous genre⁶². In order to compile his *Liber de homine*, Manfredi started with an extraordinarily diffused work, a Latin collection of problems; from these problems he selected those which seemed to him the most suitable, classifying them, expounding on them, rearranging them, added some new ones and omitting those which did not interest him (there were many to choose from: as we have already mentioned, the *Problemata Aristotelis* contained 900 problems, the *Omnes homines* 385, and the *Liber de homine* 568). In creating his work, Manfredi acted both as *compiler*

⁵⁹ Lawn, 1963, pp. 101-140. Jerónimo Campos, *Sylva de varias questiones naturales y morales, con sus respuestas y soluciones, sacadas de muchos auctores griegos y latinos*. The work was printed later in Valencia in 1587. See Palau i Dulcet, 1948-77, note 41501; López Piñero *et al.*, 1981-86, notes 234-35.

⁶⁰ Cherchi, 2007, p. 107, also made this observation.

⁶¹ Lawn, 1963, p. 112.

⁶² It is known that the *quæstio* and the *disputatio* as didactic methods were implanted progressively throughout the Universities of Western Latin Europe, with different success in different areas. See Jacquart, 1985, p. 297.

and *commentator*, two of the four ways of writing a book that were standard in the Middle Ages, having been described by Saint Bonaventure in his prologue to Peter Lombard's *Libri sententiarum* (1250-1252)⁶³. Writing – an activity that was generally understood to include translating, which in turn cannot be separated from the academic practices of commentary and gloss⁶⁴ – meant rewriting and updating the *auctores* of tradition in order to enter into dialogue with that very tradition; for this reason, Manfredi felt able to state freely in the prologue of the *Liber de homine* that his work was a translation from Latin to Italian⁶⁵.

As a demonstration of this, let us examine the problem at the beginning of the first section of the pseudo-Aristotelian *Omnes homines*⁶⁶, dedicated to medical questions, which corresponds to the first *perché* in Manfredi's book⁶⁷: "Why are great excesses unhealthy? Is it because they produce a surplus or a lack? For indeed, that is where illness lies⁶⁸." If we compare this text with the first problem in the *Liber de homine*, we can see that Manfredi has lengthened the problem quite noticeably. But in order to do this, he required models, as we can see by reading the first problem with the commentary by Pietro d'Abano as it appears in the 1501 Venice edition⁶⁹, which contains both Bartolommeo da Messina's translation as well as Theodor of Gaza's:

⁶³ See Parkes, 1976. The four categories of Saint Bonaventura include the *commentator* (who writes what others have written adding his own material with the aim of explaining), the *compiler* (who writes what others have written adding things which are not his: *addendo, sed non de suo*), the *auctor* (who uses the material of others but also his own material, fully aware that his text is the most important and that other people's texts serves to confirm his own words) and the *scriptor* (who simply transcribes what others have written).

⁶⁴ Copeland, 1991.

⁶⁵ In the prologue in Latin, dedicated to Giovanni de Bentivoglio, Manfredi says: "cum rerum naturalium causas hinc id diligent investigatas & eductas in maternum sermonem de latino traduxi opus idcirco magis comune ratus" (because the causes of natural things are here diligently investigated and researched, I have translated this work from Latin into the mother tongue so that may be better known universally) (Hellinga, 1992-, Unit 15, MI 31, 1v). Manfredi, 1988, does not transcribe the prologue.

⁶⁶ We shall use as our point of reference the French translation of the *Problèmes* in Aristote, 1991-94. From here come the following quotes.

⁶⁷ Cherchi, 2007, p. 117.

⁶⁸ "I. 1. Pourquoi les grands excès sont-ils malsains? Est-ce parce qu'ils produisent un excédent ou un défaut? Or, c'est cela la maladie" (Aristote, 1991-1994, 1, p. 9).

⁶⁹ *Problemata Aristotelis cum dpulici [sic] translatio[n]e antiqua Theodori Gaze, cu[m] expo[sitio]ne Petri Aponi. Tabula [...] Petrum de Tussignano per alphabetum. Problemata Alexa[n]dri Aphrodisei [per Georgius Ualla[m] in latinum translata]. Problemata Plutarchi*, Venice, Bonetus Locatellus, 1501, 1v (Barcelona, Biblioteca de la Universitat de Barcelona, hereafter BBU).

Problem 1. Old translation: On what account do great excesses generate illness, or, how do these provoke excess and shortage and then become illness? New: Why do great excesses have such power to provoke illness and why is it sure that both excess and shortage will cause some illness that will take hold?

This is the reason why great excesses either diminish according to the greater or lesser degree of the temperament in absolute terms, or they are bound to provoke illness from a temperament related to some individual. It is worth noting that these superabundances or excesses constitute about six non-natural causes, as doctors call them, which are impossible for our body to keep away from, since they are within us: air, food and drink, evacuation and repletion, sleep and vigil, movement and rest, and the passions of the soul called accidents, which also occur in bodies according to Galen in the treatise on the causes of the Tegni, measured in quantity and quality. [...]⁷⁰

Sections 31 through 34 of the pseudo-Aristotelian treatise are dedicated to the eyes, the ears, the nose, and the mouth. Chapters 3 through 6 of the second part of the book by Manfredi, by comparison, deal with the eyes, the mouth, the ears, and the nose, in this sequence. The following table shows which of the eighteen problems on the nose contained in section 33 were used by Manfredi in his chapter 6. It can be seen that he used only eleven and that he combined two of them (problems 2 and 8) into one of his questions:

Pseudo-Aristotelian	Manfredi
Section 33	II, 6
1	
2	8
3	6
4	7

⁷⁰ “Problema I. Antiqua translatio: Propter quid magne superabundantie egritudinales aut quare superabundantiam vel defectum faciunt, hec autem erat egritudo. Nova: Cur exuperantie nimie committendi morbi vim habeant, an quare vel excessum vel defectum efficiant quæquidem re morbum consistere certum est.

Que est causa quod magni excessus sive recedant secundum plus aut secundum minus a temperamento absoluto vel a temperamento alicui relato sunt nati inducere egritudines. Notandum est quod iste superabundantie sive excessus consistunt circa sex causas non naturales dictas a medicis quibus impossibile est corpus nostrum non approximare, quæ sunt continens nos: aer, cibus et potus, inanitio et repletio, somnus et vigilia, motus et quies et passiones anime dicta accidentia, que etiam occurrunt corpori secundum Galienum in Tegni tractatu de causis quantitate et qualitate mensuratis tempore relicto. [...]

5	
6	4
7	
8	8
9	
10	5
11	9
12	11
13	
14	12
15	13
16	10
17	
18	

If we compare section 3 of the *Problemata*, dedicated to the use of wine and intoxication, and the second chapter of the first part of *Il Perché*, which deals with drink, we notice that Manfredi has lengthened his source:

III.24. Why are drunken people more prone to tears? Is it because they become hot and humid? Because they are incapable of controlling themselves, they are moved by trifles.

I.II.21. Why do drunks constantly have tears in their eyes?

Wine generates superfluous moisture in the head, which nature does not allow to remain there, but unburdens the brain, which is a principal part, by sending it to other places; and because the eyes are more porous, it opens the way towards them. And they are also easier to pass through and are of a weaker composition. Thus moisture is sent mostly to them as tears, and this is the reason why drunks for any trifle, such as cold or smoke, are moved to tears, their eyes being more prone to them because of the abovementioned reasons⁷¹.

⁷¹ “III. 24. Pourquoi les gens ivres ont-ils la larme plus facile? Est-ce que parce qu'ils deviennent chauds et humides? Ils sont donc capables de se maîtriser, si bien qu'ils sont remués par de petites choses” (Aristote, 1991-1994, I, p. 68).

“I. II. 21. Perché ali ebrii lacrimano al continuo gli ochi? El vino genera molte humidità superflue nel capo, le quali gravandolo non può la natura retenerne, ma descargando il cerebro, chè membro nobile, le manda ad altri luoghi; e perché gli ochi sono più porrosi apre le vie a quei. Et anco sono più passibili e di debile compagine: imperò tal humidità

In this next example, Manfredi combined into a single question two problems from section 32 dealing with the same subject. Here are the two original questions from the section on ears:

XXXII.3. Why do divers cover their ears with sponges?

Is it to prevent the sea, moving violently, from making their eardrums burst? For, in this manner, their ears do not fill of water as they otherwise might.

XXXII.11. Why are divers' ears less likely to burst if they take the precaution of pouring oil into them?

The explanation that their ears would burst has been stated above and the oil poured down their ears makes the sea water that enters them more fluid, and when one has rubbed the inside of the ear it has the same effect as on the body's surface, and that is the reason why it does not burst⁷².

In the fifth chapter of the second part of the *Liber de homine* we see how Manfredi synthesized the two questions:

II.V.2. Why are the eardrums of those swimming in the sea less likely to burst if they have previously poured some oil into them or covered them with a piece of sponge?

The sponge around the ear prevents the sea from damaging it and the oil poured into the ears lubricates the water that enters them; the very soft and lubricated water does not have a harsh impact, thus preventing bursting⁷³.

vanno più tosto ad essi per modo di lacrime; e questa è la casione per la quale gli ochi deli ebrii per ogni facil cosa, come è vento fredo o fumo, se inducono a lacrimare, perché gli ochi loro sono più disposti a lacrimare per la casion predicta" (Manfredi, 1988, pp. 104–105).

⁷² "XXXII. 3. Pourquoi les plongeurs fixent-ils des éponges autour de leurs oreilles? Est-ce pour que la mer qui se précipite avec violence, ne leur fasse pas éclater les oreilles? Car ainsi, les oreilles ne s'emplissent pas d'eau, comme elles le feraient si les éponges n'étaient pas là" (Aristote, 1991-1994, 3, pp. 62–63).

"XXXII. 11. Pourquoi les oreilles des plongeurs risquent-elles moins d'éclater, s'ils prennent la précaution d'y verser de l'huile? La cause qui fait éclater les oreilles est-elle celle qui a été donné plus haut, et l'huile versée dans les oreilles rend-elle plus fluide l'eau de mer qui y pénètre ensuite, comme cela se produit pour la surface du corps, quand on s'est frotté d'huile? Une fois rendue plus coulante l'eau ne produit pas de choc à l'intérieur de l'oreille, et c'est pour cela qu'elle ne la fait pas éclater" (Aristote, 1991-1994, 3, pp. 64–65).

⁷³ "II.V.2. Perché le orechie se rompeno manco a quei che nodano nel mare se prima infundeno del'olio nele orechie over se tengono un poco de sponga circa quelle? Le sponghie poste circa le orechie si proibisseno la percussione del mare a quelle e l'olio infuso nele orechie fa lubricare l'acqua che va a quelle; e l'acqua lubrica e mollissima per l'olio non può fare gran percussione, de che non seguita roctura" (Manfredi, 1988, p. 209).

With the examples cited above, we have attempted to show how Girolamo Manfredi organized, rearranged, lengthened and selected from his textual source – the collections of problems – in order to compile his *Liber de homine*. There is still, however, another question to resolve: what inspired Manfredi to unite a health regime and a physiognomy treatise in one volume? Clearly not a collection of problems. As we have seen, the *Problemata Aristotelis* are classified into thirty-eight sections and the *Omnes homines* into thirty-four. Although the initial sections of this last text are related to the chapters of Manfredi's treatise on physiognomy – the first section is dedicated to hair, the next to the head, then the eyes, the nose, the ears, the mouth, the teeth, the tongue, the palate, the neck, the humerus and the arms, the hands, etc.⁷⁴ – this does not determine its two-part structure. The idea does not come from the *Problems* by Alexander Aphrodisias either⁷⁵. Our hypothesis regarding Manfredi's inspiration for grouping these two texts into one volume will be argued in the next article.

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⁷⁴ We used Ps.-Aristotle, *Problemata Aristotelis* [*Omnes homine*]; Marco Antonio Zimara, *Problemata*; Alexander Aphrodisias, *Problemata*, Lyon, 1561 (BBU). Marco Antonio Zimara, *Problemata*; Ptolemy, *Geographia*, Bologna, 1462 [=1477], in Hellinga, 1992-, Unit 3, ip 01082000.

⁷⁵ Alexander Aphrodisias, *Problematum Alesandri Aphrodisei libri duo; Problemata Plutarchi*, Valencia, 1554 (BBU). The first text bears no relation to the two books of *Il Perché* by Manfredi. The *Problemata Plutarchi* have no divisions. The edition by Alexander Aphrodisias quoted in the note 75 contains 151 problems without any kind of classification.

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Antònia Carré
acarrep@uoc.edu

Lluís Cifuentes
lluiscifuentes@ub.edu