Of Poets and Physicians:
Medical and Scientific Thought from the Sicilian School to Dante, 1230-1300

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ABSTRACT

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In my dissertation, I argue that the medical milieu of the 13th century contributed to shape vernacular secular culture. I demonstrate how the historical and scientific contexts of the Italian peninsula, from the Sicilian school of Frederick II and Manfred to the communal realities of Bologna and Florence, testify to the active reception of the works of Aristotle, Galen, and their Arabic and Western commentators in poetic circles. I show how the Italian 13th century was informed by a high degree of intellectual and scientific knowledge, and how the far-reaching penetration of medical sources connects an emerging vernacular culture to the intricacy of urban networks.

Of Poets and Physicians addresses the following questions: what is the contribution of medical literature to Italian poetry of the 13th century? How can the reception of Aristotelian and Galenic physiological theories help us illuminate the way Medieval literature produced its tropes? Why should we consider these cultural and intellectual environments as productive frames of thought for poetical writings? My dissertation addresses these questions in three macro-chapters.

In the first chapter, *On Fluid Memory*, I argue that under the patronage and influence of Frederick II and Manfred, the reception of Aristotle's physiology of the soul informed the tropes of the memory image of the lady engraved into the heart, used by Giacomo da Lentini and the other vernacular poets at court.

In the second chapter, *Minding the Brain*, I study the influence of Galen and Arabic Galenism on the intellectual circles of the second half of the 13th century. I argue that the influence of the Bolognese Galenism of Taddeo Alderotti informed a great part of Guinizzelli's poetry, not only with respect to the phenomenology of love, but also in his views on nobility and natural determinism.

In the third chapter, *All Things Natural*, I combine the Aristotelian discourse on ethics and the Galenic question of temperamental determinism. I analyze how the scientific background on the relationship between bodily balance and the functions of the soul is discussed in Taddeo Alderotti's translation of an epitome of Aristotelian ethics, and how these debates are reframed in the poetry of Guido Cavalcanti, Dante Alighieri, and Cino da Pistoia, by virtue of the relationship between love and reason.

While contextualizing the uses of medical thought in the poetical production of philosophical and poetic authors, I demonstrate how the active reception of scientific theories testifies to the high degree and pervasiveness of medical education in the intellectual circles of the 13th century.

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Ai miei genitori,
e alla loro *infinita* pazienza.

Does the body rule the mind
Or does the mind rule the body?
I don't know...

Steven Patrick Morrissey, Johnny Marr

Medicine and the Early Italian Lyric: An Introduction

In this dissertation, I address a series of questions on the intellectual and material relationship between medical thought and early Italian poetry. There is another deeper, more cogent question that has as yet been left incompletely answered and that I attempt to illuminate: why did the poets analyzed in the course of these pages show such an interest in the medical and scientific philosophy of their times? In truth, difficulty in finding an answer to this question seems to permeate the scholarship dedicated to this field, which has investigated major authors of the 13th and 14th centuries with the aim of unveiling their philosophical and scientific sources, but has less pervasively drawn a wider picture of the *forma mentis* or general intellectual milieu with respect to the same themes.

Starting with the authors analyzed in the course of chapter one (*On Fluid Memory*), the studies on the Sicilian school are clearly tied to the origins of vernacular poetry in Italy, but the historical narrative does not always give justice to the poets' individual scientific contributions. Much of the scholarly attention has been dedicated to the Provençal and French models of the Sicilians, from which they took an interesting selection of themes, language, and images. As I will show in the course of the chapter, French and Occitan sources were available at court, an availability that is not a surprise, if we take into account the fact that Frederick's father, Henry VI, was a courtly poet himself, and that both Henry and Frederick were in contact with the best

Minnesänger of their generations. However, the scientific engagement of the poets of the Sicilian school has been explored in only a few scholarly contributions. A few years ago, Akash Kumar dedicated his Ph.D. dissertation (*Sì come dice lo Filosofo: Translating Philosophy in the Early Italian Lyric*, Columbia University, 2013) to the vernacular engagement with Aristotelian philosophy in the early Italian lyric (his interest does not extend to physiology or medicine), and paved the path to more dedicated studies on the matter. Most recently, two collections of essays investigate the translation of scientific treatises in Sicily and Europe during the Middle Ages.[1]

Of the Greek, Latin, German, Arabic, Hebrew, Sicilian, Provençal, and French volumes that constituted the collection of the Staufen court, as represented in the letter *In extollendis regiae prefecturae fastigiis*, whose analysis opens my first chapter, only a small number can be physically ascribed with certainty to the reign of Frederick II or Manfred, although their presence may well be detected through their use and quotations in the writings of the time.[2] However, as

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[1] See *Science Translated: Latin and Vernacular Translations of Scientific Treatises in Medieval Europe*, eds. M. Goyens, P. De Leemans, A. Smets (Leuven: Leuven University Press, 2008), and *Translating at the Court: Bartholomew of Messina and Cultural Life at the Court of Manfred, King of Sicily*, ed. P. De Leemans (Leuven: Leuven University Press, 2014). See also Fulvio Delle Donne, *La porta del sapere. Cultura alla corte di Federico II di Svevia* (Rome: Carocci, 2019), especially pp. 83-168, albeit he does not investigate at length the presence of scientific knowledge among the Sicilian poets.

[2] The seminal work that links the scientific interests at the Staufen court with Frederick II's own political trajectory is of course Ernst H. Kantorowicz, *Frederick the Second, 1194-1250*, Eng. transl. E. O. Lorimer (New York: F. Ungar, 1957; original German edition, 1927). In more recent times, two volumes are particularly worthy of mention: *Federico II e le scienze*, eds. P. Toubert, A. Paravicini Bagliani (Palermo: Sellerio, 1994), especially for the contributions on scientific and medical topics by M. McVaugh, G. Cavallo, D. Jacquart, and C. Burnett; *Federico II e le nuove culture. Atti del XXI Convegno storico internazionale, Todi, 9-12 ottobre 1994* (Spoleto: Centro italiano di studi sull'alto Medioevo, 1995), especially the essays by P. Morpurgo and C. Burnett. David Abulafia, *Frederick II. A Medieval Emperor* (New York-Oxford: Oxford University Press, 1988) is a controversial biography that aims primarily to scale down the impact of the alleged *stupor mundi* in the culture of the early 13th century, and fails to recognize any originality in the poetry of the Sicilian court.

mentioned above, in the scholarship that studies the poetical production of the so-called Sicilian school, little attention is given to the scientific milieu that must have been available during the poets' activity.

In an important essay on the Sicilian poets published in 1970, Gianfranco Folena acknowledges the cultural interests that were animating Frederick's court. However, although admitting that the poets were actively interested in the received forms of the poetical tradition, he stresses the gap between the flourishing culture of the court and what he sees as the enclosed, fixed images of the Sicilian poets.[3] Folena thus denies any scientific engagement with the cultural environment of the Staufen court to the poets, who according to him limited themselves to the already clichéd metaphors of the most trite Medieval encyclopedism.[4]

This claim remains somewhat present also in the scholarship of Bruno Nardi, who possessed virtually no interest in the scientific background of the Sicilian poets. While being an acute reader of the philosophical implications of Medieval Italian literature, Nardi denies any

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[3] Gianfranco Folena, "Cultura e poesia dei Siciliani," in *Storia della letteratura italiana*, dir. E. Cecchi, N. Sapegno, 9 vols. (Turin: Einaudi, 1970), vol. 1: *Le origini e il Duecento*, pp. 273-347. See in particular p. 294: "Chi consideri dunque l'orizzonte apertissimo della cultura del tempo di Federico II [...] sentirà ancora più forte il divario fra quella cultura e quella poesia, ancora più esili quei fiori di giardino in questo signorile demanio."

[4] Folena, "Cultura e poesia" cit., p. 294: "Sono immagini fisse, decorative, di repertorio: un serio tentativo di sviluppo dialettico in un ricco tessuto analogico di immagini naturali si ha solo in Guido delle Colonne che annuncia da vicino il Guinizzelli, del quale non ha però l'armatura dottrinale."

doctrinal originality to these court poets, and confines the sources of their debates to vague inspiration drawn from various literary and scientific sources.[5]

The most recent monumental edition of the poetry of the Sicilians, promoted by the Centro di studi filologici e linguistici siciliani and under the conjoined care of Roberto Antonelli, Rosario Coluccia, and Costanzo di Girolamo,[6] shows the same scientific dispersion. While many bibliographical pages are dedicated to the Provençal, French, and Medieval sources of the Sicilian poets, scientific and philosophical texts are not treated as primary sources and are accessed only through secondary scholarship. This scholarship, in turn, may be inaccurate, as in the instance of an essay by Bienvenido Morros Mestres. The author affirms that Giacomo "sigue el pensamiento aristotélico-galénico, basado en tres órganos principales [sic!], cuya actividad domina el desarollo de los processos vitales," thus ignoring the problem of the *hegemonikon* that sets apart Galen from Aristotle on the issue. And in the following pages, while discussing this alleged Aristotelian-Galenic physiology of sense perception, Morros Mestres writes that the brain is "concebido como órgano central de los niervos, origen de la sensibilidad y sede de las

[5] Bruno Nardi, "Filosofia dell'amore nei rimatori italiani del Duecento e in Dante," in *Dante e la cultura medievale*, ed. P. Mazzantini (Rome: Laterza, 1983), pp. 1-92, especially pp. 1-13, identifies in Andreas Capellanus the inspiration for Giacomo da Lentini's *Amor è uno disio che ven da core*. His goal is to reconcile Aristotle's cardiocentric physiology with the Galenic medical writings, via the solution described by Avicenna in *Canon*, bk. 1, fen 1, doctr. 6, ch. 1. This argument will be developed more fully by Manuela Allegretto, but without recognition of Nardi's essay, as I show in chapter one.

[6] *I poeti della scuola siciliana*, edizione promossa dal Centro di studi filologici e linguistici siciliani (Milan: Mondadori, 2008). Vol. 1: *Giacomo da Lentini*, critical ed. R. Antonelli; vol. 2: *Poeti della corte di Federico II*, dir. C. Di Girolamo; vol. 3: *Poeti siculo-toscani*, dir. R. Coluccia.

facultades espirituales," which is not even remotely what Aristotle argues in his biological treatises.[7]

While absent from the main critical works on the Sicilian poets, Aristotelian and Galenic medical texts come to the surface of some recent contributions regarding the scientific sources of the Sicilian poets. By correctly interpreting Giacomo's sonnet *Or come pote sì gran donna entrare* [1.22] as an instance of the debates on the psycho-physiology of vision and sense perception, Natascia Tonelli in an essay published in 2000 identifies the *Book of Ten Treatises on the Eye* by the renowned scholar and translator Ḥunayn ibn Isḥāq as the direct source of the poem.[8] This identification is of utmost interest, because it testifies to the exact scientific interests circulating at court during Frederick's reign and to the prevalence in the Sicilian poets of Aristotelian and Galenic physiological issues.

Another important detection of scientific threads in the Sicilian poets is Manuela Allegretto's seminal essay of 1980, *Figura amoris*,[9] in which she argues that Giacomo's trope of the lady's image engraved in the poet's heart is directly related to Avicenna's biological work *De*

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[7] Bienvenido Morros Mestres, "Medicina y literatura en Giacomo da Lentini," in *La poesia di Giacomo da Lentini. Scienza e filosofia nel XIII secolo in Sicilia e nel Mediterraneo occidentale* (Palermo: Centro di studi filologici e linguistici siciliani, 2000), pp. 105-36, citations pp. 107 and 108. See chapter 2 (*Minding the Brain*) and the bibliography cited there for an account of the debate.

[8] Natascia Tonelli, "'De Guidone de Cavalcantibus physico' (con una notarella su Giacomo da Lentini ottico)," in *Per Domenico De Robertis. Studi offerti dagli allievi fiorentini*, eds. I. Becherucci, S. Giusti, N. Tonelli (Florence: Le Lettere, 2000), pp. 459-508, later revised in Ead., *Fisiologia della passione. Poesia d'amore e medicina da Cavalcanti a Boccaccio* (Florence: Edizioni del Galluzzo, 2015), pp. 3-70.

[9] Manuela Allegretto, "Figura amoris." *Cultura neolatina* 40 (1980), pp. 231-42. This essay owes a lot to Nardi's brief remarks mentioned above.

natura animalium. This treatise was translated by Michael Scot during his sojourn in Toledo and was brought with him to the Staufen court when he became Frederick II's personal astrologer.[10] Allegretto's essay is important for our discussion, even though she dwells a great deal on an intermediary of Aristotle, Avicenna. On account of his medical formation, Avicenna reads Aristotle with the eyes of a Galenic physician, and thus there are of course diversions in his work from the doctrine of the Stagirite. Because of her reliance on Avicenna, Allegretto is unable to reconcile the persistent presence of the heart as the center of sensation in the Sicilians and the pivot to the physiology of perception that is the brain in Avicenna's discussion.

By looking at Aristotle's physiological treatises as a direct source of the poetry of the Sicilians, I show that the difficulties of Allegretto's essay concerning the dichotomy of heart and mind can easily be overcome. As I will explain in the course of chapter one, in Aristotelian terms, the mind – conceived as the power that carries on the cognitive faculties of the animal – is not the brain, but the heart. Moreover, Allegretto does not deal with some revealing lexical choices that point directly towards Aristotle's treatises and that will be discussed at length in the course of chapter one.

Building upon this scholarly contribution, in chapter one I will analyze how the Sicilian poets of the Staufen court not only show a scientific expertise in physiological issues of sense perception and memory, but they tend to read their phenomenology of love through the lens of this Aristotelian debate. The preference given to the individual and singular organ of the heart,

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[10] See the recent contributions on the topic by Danielle Jacquart, "La fisiognomica: il trattato di Michele Scoto," in *Federico II e le scienze* cit., pp. 338-53; Charles Burnett, "Michael Scot and the Transmission of Scientific Culture from Toledo to Bologna via the Court of Frederick II Hohenstaufen," in Id., *Arabic into Latin in the Middle Ages: The Translators and their Intellectual and Social Context* (Farnham, UK-Burlington, VT: Ashgate/Variorum, 2009), pp. 101-26; "Master Theodore, Frederick II's Philosopher," in Id., *Arabic into Latin* cit., pp. 225-85.

an Aristotelian point that is going to be discussed in the first parts of the chapter, seems to emulate and almost mirror the concentration of political power in the hands of the monarch, who administrates and regulates the transmission of images. Much like a heart,[11] the emperor and his own physical disposition are at the core of the wellness and health of the entire body-state. The heart, understood in its material component under the aegis of medicine, is thus regarded as the single principle of sensitivity, and the first threshold of human rationality as well.

In the second chapter (*Minding the Brain*), I investigate how retracing the steps of a shared *forma mentis* allows for a deeper understanding of those poets who are generally understood as "minor." Even without packing their lyric poetry with citations from Aristotle or Galen, poets of primary importance the likes of Chiaro Davanzati and Bonagiunta Orbicciani show the widespread repercussions of physiological debates around the principle of human physiology. After a recognition of the presence of Galenic thought in 13th-century medical philosophy, I analyze how the complexities of a "horizontal" understanding of human faculties (as contrasted with a concentration around the heart that was typical in the Sicilian school) opens the way to the possibility of a more nuanced depiction of human interiority and sensitivity. Against the hierarchical role of the heart, monarch and *princeps* among the bodily organs, the differentiation of the Galenic tripartition discussed in the course of chapter two can help illuminate the insistence of later poets on the interplay between mind, heart, soul, will, desire, as expressed in the poetical works of the Sicilian-Tuscans.

The repercussions of Galenic medicine are at the center of my reading of Guido Guinizzelli's poetry, and especially of his relationship with the academic activity of Taddeo

[11] Regarding the relationship between body and state, the reference is obviously to the classic Ernst Kantorowicz, *The King's Two Bodies: A Studies in Mediaeval Political Theology* (Princeton: Princeton University Press, 1957).

Alderotti, the most important physician of the 13th century. The poetry of Guido Guinizzelli has been read primarily through the interpretive lens of Dante, who put his imprint on the entire historiography of the early Italian lyric: Dante's celebration of the illustrious "father of [him] and of the others" who ever sang love in a sweet style (*Pg*. XXVI 97-99), and the earlier celebration of Guinizzelli in the *De vulgari eloquentia* as the "maximus" poet who elevated himself from municipal style and rhetoric, succeeded in persuading critics of the "meaning and substance of ontological reality" of Guido's innovations.[12] While critical evaluation of Gunizzelli has not eschewed the scientific engagement of his poetry, no previous study has attempted to reconstruct the possible influences of medical literature on his intellectual development. As I will show, Taddeo's and Guido's biographies do not overlap just at a superficial level of investigation, but there are a number of interesting repercussions in the ways they both represent two threads of the Bolognese cultural fabric. This fabric still needs to be explored in its own respect, that is, synchronically, or through an accurate historicization.[13]

All things considered, to read Guinizzelli as a father makes us lose track of his life before any begetting, which is where much I intend to put my efforts. While he recognizes the scientific intake of the cultural environment of Bologna, Mario Marti does not work to establish with

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[12] See Mario Marti's entry "Guinizzelli, Guido" in *Enciclopedia Dantesca*, 5 vols. (Rome: Istituto della Enciclopedia Italiana, 1970-76). On the genealogy of Stilnovo as a historiographical concept, see Emilio Bigi, "Genesi di un concetto storiografico: «Dolce stil novo»." *Giornale storico della letteratura italiana* 132 (1955), pp. 333-71, who traces the antecedents to Francesco De Sanctis's formulation in his *Storia della letteratura italiana* (1870), and Teodolinda Barolini, *Dante's Poets: Textuality and Truth in the Comedy* (Princeton: Princeton University Press, 1984), pp. 85-187.

[13] On this historical approach, and the hermeneutic possibilities that such a reconstruction paves, see Teodolinda Barolini, "'Only Historicize': History, Material Culture (Food, Cloths, Books), and the Future of Dante Studies." *Dante Studies* 127 (2009), pp. 37-54.

precision the doctrinal consistency of the images used by Guinizzelli. In his *Storia dello stil nuovo*, Marti's intention is to show the positivist progress of the Italian poetry, thus connecting and tracing the "novelties" in Guinizzelli's style, and their long-lasting influence in the following generations of poets. Although Marti does not subscribe to a chronological order of the poems,[14] his reading is thus limited to the conscious innovations of these poets, and Guinizzelli's attentive eye to the facts of nature is linked to the "coeval Averroistic effort to liberate, through science, the study of nature", an effort that is said to nurture his images.[15] This perspective is certainly interesting despite its imprecisions and confusion, giving us some fresh insight into the intellectual curiosity of the author, whom Marti situates between the established tradition of the Tuscan poets of Guittone's time and a striving towards the new that is still yet to come.[16]

Clear in its conjunction with the intellectual environment of Bologna is Guido Favati's analysis of Guinizzelli's tenzone with Bonagiunta Orbicciani da Lucca in his *Inchiesta sul dolce stil nuovo*. Glossing Bonagiunta's allusion to the abundance of "senno... da Bologna" ["wisdom from Bologna," v. 13], he references the richness of philosophical and medical studies in the

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[14] See Mario Marti, *Storia dello stil nuovo* (Lecce: Milella, 1973), pp. 15-62, 351-76.

[15] Marti, *Storia dello stil nuovo* cit., p. 363: "Il naturalismo di Guinizzelli… si ravviva e s'innerva del pressoché coevo tentativo averroistico d'affrancamento scientifico dello studio della natura, ed ha dietro di sé questa esigenza culturale e ne è ideologicamente sostenuto" [Guinizzelli's naturalism is vivified by the coeval Averroistic effort of scientific liberation of natural study, it has this cultural necessity behind it, and it is ideologically supported by it]. My translation here and elsewhere.

[16] At p. 364 Marti concludes by affirming that "occorrerà probabilmente non forzare la mano nella direzione delle sollecitazioni filosofiche, culturali e storiche, delle quali egli sembra essere suggestivo e immaginoso riecheggiatore, ma tutt'altro che sistematico, anzi piuttosto episodico" [it is better not to insist on other philosophical, cultural, and historical readings, of which [Guinizzelli] seems to be just a suggestive and imaginative echo, but in no systematic or coherent way].

university city.[17] According to Favati, Guinizzelli's poems, and especially his seminal canzone *Al cor gentil*, cannot be fully understood outside of the cultural context of the *Studium urbis*: Bonagiunta's reprimand of Guinizzelli's scientific language testifies to the distance between his philosophical erudition and the Aristotelian language of *Al cor gentil*, which made this new style of poetry so difficult to understand for the masters of the old school.[18] But, as I will show in the second chapter, Bonagiunta's difficulty does not indicate a disengagement of the Sicilian-Tuscan poets themselves from the coeval intellectual milieu.

The relationship between Guinizzelli and the contemporary lyric tradition is carefully assessed by Favati with respect to Guido's engagement with both Guittone d'Arezzo and Sicilian poetry. According to Favati, Guinizzelli uses Giacomo to break away from the dominant styles of poetry of his time, which nonetheless left a decisive mark on his poems.[19] Guinizzelli's reading of the Sicilian school testifies indeed to the active engagement with philosophy and science that was so productive in the poets of the Staufen court. In terms of chronology, Favati dates Guinizzelli's turn to Sicilian motifs in the light of his tenzone with the older Guittone d'Arezzo, placing the turn after 1266, based on the responses Guinizzelli received in his tenzone

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[17] See Guido Favati, *Inchiesta sul dolce stil nuovo* (Florence: Le Monnier, 1975), especially pp. 56-77, 151-174.

[18] Favati, *Inchiesta* cit., pp. 61-68. For an analysis of *Al cor gentil* in its medical references, see below 2.4 Per modum radicis*: Enzo, Taddeo, Guido*, pp. 162-78.

[19] Favati, *Inchiesta* cit., p. 154: "L'esperienza guinizzelliana è dunque comprensiva d'un ricupero lentiniano e, più vastamente, siciliano, ma non come punto di partenza... bensì come via per rompere il guittonismo imperante, nel cui gusto aveva egli stesso composto" [Guinizzelli's experience includes a recuperation of Giacomo da Lentini's style (and, more broadly, Sicilian), not as a starting point, but rather as a way to break through Guittone's pervasive style, under whose aegis Guido himself had written].

with Guittone.[20] I do not want to stress too much a separation between an "early Guinizzelli" and a "later" one, since his poetic biography is not easy to unravel; moreover, given Guido's limited corpus, it makes sense to have a short time span in which he dedicated himself to poetry. As I will show in the last section of chapter two, Guido's engagement with scientific issues (which affect also what the critics usually call his "earlier period") could well be concentrated around the 1260s, at the beginning of Taddeo's academic career.[21]

Italo Bertelli has dedicated much of his critical effort to Guido Guinizzelli and the poetics of the Duecento, and we turn now to his 1983 short monograph, *La poesia di Guido Guinizzelli e la poetica del «Dolce stil nuovo»*.[22] As the concise preface by Luigi Banfi states, Bertelli wishes to redefine the genesis of Guinizzelli's poetics to better assess the ways in which the Stilnovo poets would have seen in him a precursor. But despite recognizing in Guido's poetry a certain philosophical interest – indeed one of the major trends in the Duecento poetry as well –, Bertelli does not dedicate much attention to the exact context of Guinizzelli's scientific endeavors: if the Aristotelian thread is (possibly) a debt towards the penetration of Thomistic thought in Bologna (as if Thomas Aquinas was the only Aristotelian to deserve a reference!), the Neoplatonic and Augustinian inspirations are simply referred to the Franciscan milieu. In summary, Bertelli's lack

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[20] Ibid., p. 155.

[21] See the section 2.4 Per modum radicis*: Enzo, Taddeo, Guido*, pp. 162-78.

[22] Italo Bertelli, *La poesia di Guido Guinizzelli e la poetica del «Dolce stil nuovo»* (Florence: Le Monnier, 1983), where the author condenses the questions already presented in *Poeti del dolce stil novo: Guido Guinizzelli e Lapo Gianni* (Pisa: Nistri-Lischi, 1963), *Cultura e poesia: studi e saggi di letteratura italiana* (Milan: Bignami, 1969), *Esperienze poetiche del duecento e del primo trecento: studi sul «dolce stil nuovo» e sulla letteratura dell'età comunale* (Milan: Bignami, 1980). See also, of the same author, *I fondamenti artistici e culturali del «dolce stil nuovo»* (Milan: Bignami, 1987).

of commitment to the identification of precise philosophical sources in Guinizzelli's poetry is due to the assumption that his poems do not show anything more than "elements of a vaguely scientific nature," drawn essentially from the simplified encyclopedias of the time and the lyric poetry of the previous tradition.[23] According to Bertelli, Guinizzelli was thus able to condense in his readings of the Provençals and Sicilians a scientific culture of which he is unaware.[24]

Bertelli's simplified reading of the scientific knowledge of 13th-century lyric poetry fails to recognize the intertwined relationships and profound inspiration of both poets and philosophers. By reinstating a dichotomy between literary trope and scientific thought (or in Croce's aesthetic terms, poetry and non-poetry), this approach fails to do justice to the interdisciplinary natures of all the authors analyzed in the course of this dissertation.

Pietro Pelosi investigates this cultural exchange in *Guido Guinizelli: stilnovo inquieto*, which condenses the results of his edition of the poems with commentary.[25] Pelosi argues that

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[23] See Bertelli, *La poesia di Guido Guinizzelli* cit., p. 38: "elementi di vaga natura scientifica." My translations here and elsewhere. A great part of the book is dedicated to the Provençal and Classical references in Guido's poetry, both from an imaginative and an ideological standpoint.

[24] See Bertelli, *La poesia di Guido Guinizzelli* cit., pp. 39-40: "[nelle immagini di Guido si nota] il segno di una cultura mobile e varia, ma in fondo superficiale, riscontrata sui sommari... una sorta di 'congelamento' e di schematizzazione operata dalla tradizione letteraria siculo-provenzale. [Intorno alla cultura letteraria si accorpano i semi di] una cultura [scientifica] altrimenti dispersa e non consapevole" [in Guido's images one can see the symptoms of a varied and mobile culture, but one that is nevertheless superficial, as found in the encyclopedias, a sort of freezing and schematizing of the literary tradition of the Sicilians and the Provençals. Around his literary culture one can see congealed the seeds of an otherwise dispersed culture of which he lacks awareness]. My translations.

[25] Pietro Pelosi, *Guido Guinizelli: stilnovo inquieto* (Naples: Liguori, 2000), and his commentary of Guido Guinizelli, *Rime*, ed. P. Pelosi (Naples: Liguori, 1999). Although in the course of his work Pelosi prefers to use the alternative spelling with short affricate, I will refer to Guido solely by his geminated family name Guinizzelli.

the "aegrotatio amoris" expressed by Guinizzelli in his works is not merely poetic fiction, but the imaginative representation of a *psychomachia* that can find many different expressions in literature, philosophy, and science.[26] Pelosi does not wish to individuate the exact scientific background of Guinizzelli's medical images, but simply points out that this cluster of images is representative of a universal situation of despair vis-à-vis the facts of love. Although the author makes a series of interesting references to Guido Cavalcanti and his description of the phenomenology of love as expressed in *Donna me prega*, especially via Dino del Garbo's commentary to the canzone, in the course of his book there is no specific contextualization of Guinizzelli's poems in the cultural milieu of his times. Rather, the only parallel sources analyzed are from classical philosophical and literary texts. This method does not provide the reader with a clear impression of Guinizzelli's specificities as a poet engaged with medical and scientific ideas about the phenomenology of love, and the overly complicated language throughout the essay does not contribute to the disentanglement of the questions at stake.[27]

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[26] Pelosi, *Guido Guinizzelli* cit., p. 3: "la topica letteraria degli effetti d'Amore, più che essere una fiction poetica, vuole rappresentare una psicomachia, un dramma che si svolge all'interno e all'esterno dell'uomo, con una prevedibilità e una canonicità che solo la letteratura, in quanto tale, può rendere ritualmente estetiche" [the literary tropes on the effects of Love are not just poetic fiction, but they represent a psychomachia, a drama that is played inside and outside the human being, with a quality that is foreseeable and canonic and that only literature can make ritually aesthetic]. My translations here and elsewhere.

[27] *Exempli gratia*, at p. 5 the author writes "La mente, unidimensionalizzandosi, spossessa il cuore, lo riduce a misura del solo ancipite sentimento d'Amore: situazione altamente riduttiva e coattiva, che proprio in questa riduttività, in questo ritaglio d'angolo sofferente e privilegiato, fa trovare al poeta le ragioni di un vivere più intenso ed estremamente reso sensibile ad ogni minima sfumatura" [By unidimensionalizing itself, the mind dethrones the heart, and makes it the measure of the double-edged sentiment of Love. A situation which is highly reductive and forcing, that in this reductivity, in this suffering privileged angle, makes the poet understand the reasons of a more intense way of living, of an extreme sensitivity to every single nuance].

The most recent complete edition of Guinizzelli's poems undertaken by Luciano Rossi presents a thorough introduction to Guido's aesthetic and cultural environment.[28] Rossi underlines the connections between Guinizzelli and the university milieu of Bologna, especially by analyzing book-selling contracts that involved the judge, professors (in particular Francesco d'Accursio, Guinizzelli's own master in the *ars notaria*), and international students of the *Studium*.[29] The university culture is for Rossi the most important intellectual framework through which he reads Guinizzelli's poetry, particularly evident in his Aristotelian background and in his interest for vernacular poetry. Although Rossi does not propose an involvement with the medical school and his scholars, and despite his commitment to the older biographical tradition of the poet, Rossi's introduction successfully paved the way "to understand the genesis of Guinizzelli's intention," by not disregarding "the particular conditions of the city... in the 1260s and '70s..., a crossroads of the intellectual youth of the whole of Europe."[30]

By going back to the historiographical problem of the Stilnovo poets, Donato Pirovano has recently argued in his *Il Dolce stil novo* for a traditional position of "school," with shared

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[28] Guido Guinizzelli, *Rime*, ed. Luciano Rossi (Turin: Einaudi, 2002).

[29] Rossi stresses the importance of French students in the cultural environment of the *Studium*, and proposes to identify the "Magister Iohannes de Mauduno, quondam domini Iohannis, aureliensis diocesis" cited in a loan contract with other French students, as the Jean de Meun of the *Roman de la Rose*, thus showing how both Guido and Jean were colleagues in the same years in Bologna. See Rossi, *Introduzione* to Guinizzelli's *Rime* cit., pp. xvi-xvii, from where the above citation is taken, and the bibliography cited above at note 7. This would moderate the somewhat rigid statement in *La filosofia in Italia al tempo di Dante*, eds. Carla Casagrande, Gianfranco Fioravanti (Bologna: il Mulino, 2016), pp. xix-xx, which separates too neatly the philosophy of the university scholars from the vernacular culture of the time.

[30] Rossi, *Introduzione* cit., p. xv.

premises and solidarity against their detractors.[31] Although Pirovano discusses interesting philological and codicological data,[32] I feel that Corrado Calenda's somewhat rigid refusal of a common experience among the so-called Stilnovisti still applies to our discussion.[33] As Calenda argues, "every one [of the Stilnovo poets] goes his own way, and often with irreconcilable conflicts,"[34] and indeed some of these doctrinal positions are too far apart to live serenely under the same roof. Despite the recognition of a lively critical debate on the consistency of the Stilnovo school, Pirovano looks at the corpora of the poets with a genealogical lens with which I cannot agree. This reading of the Stilnovist experience informs his analysis of Guinizzelli's poetry as well, to whom he assigns the "license of Stilnovist."[35] Now, at this point a logical refutation needs to be brought up: Guinizzelli cannot be simultaneously a "precursor" and a "participant" of the Stilnovo school. And yet, this is the hermeneutic lens through which

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[31] Donato Pirovano, *Il Dolce stil novo* (Rome: Salerno editrice, 2014).

[32] Especially in the chapter devoted to the textual tradition of the Stilnovists, *Il Dolce stil novo* cit., pp. 255-265, with rich bibliography,

[33] Corrado Calenda, "Il dolce stil novo e Dante," in *Manuale di letteratura italiana. Storia per generi e problemi*, eds. F. Brioschi, C. Di Girolamo, vol. 1: *Dalle origini alla fine del Quattrocento* (Turin: Bollati Boringhieri, 1993), pp. 343-74.

[34] Ibid., p. 348: "non c'è nulla che giustifichi la presunzione di una scuola… Ognuno va splendidamente per la sua strada, spesso con conflitti insanabili… dando luogo ad aree, peraltro ridotte, di cavalcantismo o di dantismo minore" [there is nothing that would allow us to presume the existence of a school, everyone goes his own way, and often with irreconcilable conflicts, paving the path for minor derivations in the style of Cavalcanti or Dante]. My translations.

[35] As one can read at p. 278: "possiamo attribuire a Guido la patente di stilnovista soprattutto in virtù del pacchetto di punti guadagnati con *Al cor gentil rempaira sempre amore*" [we can give Guido a "Stilnovist license" mainly thanks to the points that he earned with *Al cor gentil*]. My translations.

Pirovano reads Guinizzelli: on the one hand, he tries to identify the Stilnovo themes and images that are *already* in Guinizzelli; on the other hand, he positively divides his corpus between more *traditional* poems (in which Guido follows closely the Sicilians), and the more *novel* ones that combine praise of *madonna* and religious inspiration. The scientific arguments that can be detected in Guinizzelli's earlier "non-Stilnovist" poetry are thus connected to the previous literary tradition (thus for the magnet and the metaphysics of light), and are not conjoined with the rest of his mature production, making us lose track of the poet's intellectual engagement with contemporary philosophical cultures in Bologna.

Following the steps of Bruno Nardi[36] and Maria Corti,[37] in more recent years a series of works have directed our attention to the intellectual background and philosophical engagement of some 13th-century authors, which is also the focus of chapter three (*All Things Natural*). By looking at both Aristotelian ethics and Galenic somatic determinism, in the last chapter I investigate how the tension between body and soul is generative of a series of questions that reverberate among the poetical discussions on the nature of love and reason.

While the main scholarly focus has been primarily Dante Alighieri and his "primo amico" Guido Cavalcanti, the attention paid to an exact investigation of primary texts, and the philosophical assessment of the scientific awareness of these literary authors, have enriched the

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[36] Among his many publications in both Medieval philosophy and Dante studies, see Bruno Nardi, *Studi di filosofia medievale* (Rome: Edizioni di storia e letteratura, 1960); Id., *Saggi e note di critica dantesca* (Milan: Ricciardi, 1966); Id., *Saggi di filosofia dantesca* (Florence: La nuova Italia, 1967); Id., *Dante e la cultura medievale* (Rome: Laterza, 1983).

[37] See for instance Maria Corti, *Dante a un nuovo crocevia* (Florence, Sansoni, 1981); Ead., *La felicità mentale: nuove prospettive per Cavalcanti e Dante* (Turin: Einaudi, 1983). These two volumes sparked a lot of critical reactions both in the field of philosophy and that of Dante studies, as I will discuss in chapter three (*All Things Natural*) of this dissertation.

conversation in terms of precise hermeneutical problems. By unveiling the lexical richness of Dante's poetry, Nardi was able to define Dante's thought as that of a full-fledged philosopher in verse,[38] who was consciously in communication with the philosophical and scientific authorities of the university masters.

Following the methodology of Nardi, Sonia Gentili's 2006 book on Aristotelian ethics and anthropology in 13th-century Italian literature managed to redirect the conversation around numerous authors and works – Dante, Cavalcanti, Petrarca, but also the *Novellino* and the moral literature of the same century – to a precise Aristotelian framework.[39] As Gentili correctly noted, the philosophical debates of the century cannot eschew the scientific engagement of the masters of arts, and especially the physicians, who acted as true innovators (and mediators) of philosophical culture to and from the vernacular. While working on the first critical edition of Taddeo Alderotti's translation of an epitome of Aristotle's *Nicomachean Ethics*, Gentili addressed specific issues in which medical thought is in communication with an entire cultural spectrum, and more interestingly with the vernacular debates in poetry and prose.

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[38] Not to forget the work of Étienne Gilson, *Dante et la philosophie* (Paris: Vrin, 1939), whose exchange with Nardi's work uncovered some of the most technical aspects of Dante's thought and his "practical" approach to philosophy. See also Maria Luisa Ardizzone, *Guido Cavalcanti: The Other Middle Ages* (Toronto: University of Toronto Press, 2002); Ead., *Dante, il paradigma intellettuale: un'*inventio *degli anni fiorentini* (Florence: Olschki, 2011); Ead., *Reading as the Angels Read: Speculation and Politics in Dante's* Banquet (Toronto: University of Toronto Press, 2016).

[39] See Sonia Gentili, *L'uomo aristotelico alle origini della letteratura italiana* (Rome: Carocci, 2006). Aristotelian thought is at the center of much of Teodolinda Barolini's work on Dante and the early Italian lyric, on which see at least Teodolinda Barolini, "Aristotle's *Mezzo*, Courtly *Misura*, and Dante's Canzone *Le dolci rime*: Humanism, Ethics, and Social Anxiety," in *Dante and the Greeks*, ed. J. Ziolkowski (Cambridge: Harvard University Press, 2014), pp. 163-79; Ead., "Dante on Wealth Management and Society, Between Aristotle and Christian *Cortesia*: From the Moral Canzoni *Le dolci rime* and *Poscia ch'Amor* to *Inferno* 6 and 7," forthcoming in *Medioevo letterario d'Italia*.

Natascia Tonelli too has focused on the medical debates on the physiology of passion with respect to the major authors of both the 13th and the 14th century. By directing her attention to lovesickness and its literary representations, Tonelli reconstructed the medical and philosophical questions addressed by the medical analysis of love-passion, thus uncovering a series of precise points that are in direct consonance with the analysis of this dissertation. Despite the richness of her reconstruction, Tonelli did not work outside of canonical authors such as Giacomo da Lentini, Guido Cavalcanti, Dante, and Giovanni Boccaccio, thus perpetuating once again a dire dichotomy between major and minor authors that does not address the widespread cultural references analyzed in the course of this dissertation.

In the past few years, Paola Ureni has dedicated a series of essays to the relationship between Dante's work and Galenic medicine, with a clear focus on the poetry of the *Commedia*. Following the methodology of philosophical and scientific investigations of early Italian literature that has characterized the scholarship of *dantisti* here discussed (Bruno Nardi, Maria Corti, and Maria Luisa Ardizzone),[40] Ureni's groundbreaking focus on Galenic medicine complements and enriches the contributions of scholars who have worked on adjacent topics in Italian literature, such as Sonia Gentili (on Aristotelian thought and Taddeo Alderotti), and Natascia Tonelli (on phenomenology of love-passion). Ureni's comparative perspective puts

[40] Nardi's interest in Galenic medicine with respect to Dante studies can be read in a series of essays: Bruno Nardi, "L'amore e i medici medievali," in *Saggi e note di critica dantesca* cit., pp. 238-67, on therapy against lovesickness as exemplified in Medieval Galenism; Id., "Filosofia dell'amore" cit., especially p. 9 on the clash between Aristotelian cardio-centrism and the Galenic emphasis on the brain; Id., "Là 've 'l cervel s'aggiugne con la nuca." *Studi danteschi* 21 (1937), pp. 157-65, then in Id., *Nel mondo di Dante* (Rome: Edizioni di storia e letteratura, 1944), pp. 249-257, on the lexical influence of Arabic Galenism and Dante's localization of brain faculties; Id., "L'origine dell'anima umana secondo Dante." *Giornale critico della filosofia italiana* 13 (1932), pp. 45-56, 81-102, and Id., "Origine dell'anima vegetativa e sensitiva nel canto XXV del *Purgatorio*," in *Studi di filosofia medievale* cit., pp. 46-53, which both deal with the nature of the soul and the medical debates.

medicine in conversation with both theology and philosophy, in a move that is also reminiscent of analogous essays by Nardi and Ardizzone. In her work, she unpacks the lexical technicality of the *Commedia*, and shows Dante's debts towards medical science and philosophy. In her essays on Dante, Ureni focuses on the localization of cognitive faculties in the cerebral area (a trait that she correctly identifies as Galenic) and on the implications of this localization vis-à-vis Aristotelian psycho-physiology,[41] while also focusing on the relationship between *complexio* and human happiness.[42]

Most of the scholarship discussed in these introductory remarks, which will be analyzed in greater detail over the course of the dissertation, managed to read against the grain of the early Italian poetic tradition. In a gesture that directly contrasts the rigid dichotomy between "poetic" and "scientific," a comprehensive recognition of the "scientificity" of Medieval Italian poetry can contribute to a deeper understanding of the modes and themes of the poetry itself. As the

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[41] See Paola Ureni-Vittorio Bartoli, "Controversie medico-biologiche in tema di generazione umana nel XXV del *Purgatorio*." *Studi danteschi* 48 (2003), pp. 83-111; Iid., "Sonno e 'animi deliquium' nel viaggio ultraterreno di Dante." *Studi danteschi* 49 (2004), pp. 211-29; Iid., "La dottrina di Galeno in 'sangue perfetto'." *Studi danteschi* 70 (2005), pp. 335-43; Iid, "La morte cruenta di Jacopo del Cassero e di Bonconte da Montefeltro (*Purg*. V 73-102). Una nuova lettura fondata sulla scienza medica medievale." *Studi danteschi* 71 (2006), pp. 9-26; Paola Ureni, "Human Generation, Poetic Creation and Memory: from the *Purgatorio* to the *Paradiso*." *Quaderni d'Italianistica* 21/2 (2010), pp. 9-35; Ead., "Lo 'stupor mentis' a occhi aperti di Vanni Fucci (*If*. XXIV 97-118). Filigrane mediche e scritturali." *Dante. Rivista internazionale di studi su Dante Alighieri* 12 (2015), pp. 55-67.

[42] See Ead., "Aspetti eterodossi nel pensiero medico. Una filigrana galenica nella scrittura di Dante," in *Ortodossia ed eterodossia in Dante Alighieri*. Atti del convegno di Madrid (5-6 novembre 2012), eds. C. Cattermole, C. de Aldama, C. Giordano (Madrid: Ediciones de La Discreta, 2014), pp. 303-24; Ead., "Medicine and Radical Thought: A Possible Galenic Presence in the *Commedia*," in *Dante and Heterodoxy: The Temptations of 13th-Century Radical Thought*, eds. T. Barolini, M.L. Ardizzone (Newcastle upon Tyne: Cambridge Scholars Publishing, 2014), pp. 225-41; Ead., "Medicine and Dante's Political Thought," in *Dante as Political Theorist: Reading* Monarchia, ed. M.L. Ardizzone (Newcastle upon Tyne: Cambridge Scholars Publishing, 2018), pp. 209-22.

pages of this dissertation explore, most of the tropes used by our authors make more sense when they are taken seriously: not chimeras of a literary mind, but actual intellectual references that nurture the poetic fibers of our authors, and that teach us a different way of looking at physiology, the body, and our selves.

Chapter One

On Fluid Memory: Aristotle's Heart in the Sicilian School

1.1 Introduction

The aim of this chapter is to individuate the presence of Aristotelian physiological and psychological writings in the poetry of Giacomo da Lentini and his fellow poets, with the intention to enlighten how these learned members of the court administration were responding to the scientific debates of their times. In these pages, I will investigate the formation of the trope of the image painted or sculpted in the heart and its scientific background, with respect to the reception and discussion of Aristotle's psychological and biological corpus. This trope is of utmost interest also for scholars of Medieval medicine and science, because of three main factors that will be discussed in the course of this chapter. First and foremost, I believe that this scientific thread can shed light on the circulation of unmediated Aristotelian physiological ideas, in a context where most of the attention has been dedicated to much later discussions that originated from the Arabic medical milieu. Secondly, the use of these concepts by the poets of the Sicilian school illuminates the way that Aristotelian psycho-physiology was understood at the Staufen court. Lastly, I believe that this image may well testify to the preference given to Aristotle's biological understanding of the human body over the prevalent Hippocratic and Galenic description of the cognitive faculties, thus extending the public of a clash between medical authorities that has always been ascribed exclusively to the learned university debates.

I will start with a text that might allow us to enter into the cultural habits of the court. The letter *In extollendis regiae prefecturae fastigiis*, attributed variously to the reign of Frederick II or of his son Manfred, is ascribed by part of the manuscript tradition to the epistolary activity of

Pier della Vigna,[1] the infamous *logotheta* of Frederick II, "the one who guarded both keys / of [his] heart and turned them, locking and / unlocking," as Dante will later put it in his *Commedia* (*If.* 13.58-60). Epistle III 67 gives a fresh insight into the material practices of study at the Staufen court. The letter was supposed to accompany a series of new translations from Greek and Arabic texts to the scholars and teachers of the University of Paris (if ascribed to Manfred), or Bologna (if backdated to his father, Frederick II).[2] Although the attribution to Frederick II's reign or his son Manfred's is still under debate, the very fact of this overlapping is revealing of the continuity of learning between the two courts. As a matter of fact, the letter deems "the seasoning of education" ["scientiae condimenta"][3] to be necessary "in the elevation of the dignity of regal office" ["in extollendis regiae prefecturae fastigiis"], with the intention of

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[1] More than one hundred manuscripts reproduce the letter, but the extant sources that are most used in modern editions are. For the version attributed to Frederick II (F): Paris, Bibliothèque Nationale, MS Lat. 8565, 97v-98r; MS Lat. 8566, 106r-107r; and MS Lat. 17912, 61v-62v. For the version attributed to Manfred (M): Paris, Bibliothèque Nationale, MS Lat. 8567, 104v. However, the issue is far from being settled. Drawing from the textual history of the epistle, René Antoine Gauthier, "Notes sur les débuts (1225-1240) du premier 'averroisme.'" *Revue des sciences philosophiques et théologiques* 66 (1982), pp. 321-74, dates the letter to the year 1263, thus a little less than fifteen years after Piero's suicide (†1249). Fulvio delle Donne, *«Per scientiarum haustum et seminarium doctrinarum». Storia dello* Studium *di Napoli in età sveva* (Bari: Mario Adda, 2010), p. 131-32, while also contextualizing the letter during Manfred's kingdom on philological bases, does not exclude a possible pre-dating of a few years. Giuseppina Brunetti, *Il frammento inedito "Resplendiente stella de albur" di Giacomino Pugliese e la poesia italiana delle origini* (Tübingen: Niemeyer, 2010), pp. 137-53, is still skeptical about this later chronology, and attributes the letter to Piero's epistolary, thus during Frederick II's reign.

[2] As a matter of fact, the rubric of the Manfred version simply reads: "Sedentibus in quadrigis philosophice discipline Parisiensis studii doctoribus universis Manfredus dei gracia etc." [Manfred to all the doctors of the Paris studium who sit on the chariots of philosophy"], while the Frederick version underlines a personal engagement of the emperor in the making of the translations, "per eum [Fredericum] nouiter translatos" [through him newly translated]. See Brunetti, *Il frammento inedito* cit., p. 137.

[3] Quotations are from the latest critical edition: *L'epistolario di Pier della Vigna*, dir. E. D'Angelo, eds. A. Boccia, E. D'Angelo, T. De Angelis, F. Delle Donne, R. Gamberini (Soveria Mannelli: Rubbettino, 2014), pp. 638-641. My translations, here and elsewhere.

providing humanity with the means to exercise power according to its licit limits, and to give strength to the execution of justice.

The consignment of philosophical and scientific books to the university masters and pupils is justified by the customary familiarity with learning that is characteristic of the Staufen court, an interest that is fueled both by the general assumption that "every man naturally desires to know" ["omnes homines natura scire desiderant"],[4] and by a personal aptitude to studies of which "we had always been in search since our youth" ["semper a iuuntute nostra quesiuimus"]. The books which the letter allegedly accompanied were "varied compilations from Aristotle and other philosophers" ["compilationes variae ab Aristotile aliisque philosophis"], regarding the disciplines of language and sciences ["in sermocinalibus et mathematicis disciplinis"].[5] These compilations were still preserved at the Staufen court in their original state, that is "in their ancient editions, in Greek and Arabic language" ["sub Grecis Arabicisque uocabulis antiquitus editae"], for they had not yet been translated into Latin up until that moment. This letter testifies to the material cultures that were present at court with respect to philosophical and scientific

[4] Which is of course the incipit of Aristotle's *Metaphysics* I 1, 980a, in the *translatio composita sive vetus*, ascribed to an anonymous translator of the 12th or 13th century who worked on the *vetustissima* translation of James of Venice. See *Aristoteles Latinus*, XXV.1-1a, ed. G. Vuillemin-Diem (Bruxelles-Paris: Desclée De Brouwer, 1970), pp. 89-155, and Gauthier, "Notes sur les débuts" cit., p. 323.

[5] I diverge from the translation of the editor ["compilazioni... sulla dialettica e la matematica"], because "mathematica" may well comprise also disciplines that we now consider as proper to physics or astronomy, forasmuch as "mathematica" is, according for instance to Domenicus Gundisalvi, "speculation of such things that are separated from matter in intellect, but not in being" ["speculatio de hiis, quae sunt separata a materia in intellectu, non in esse," *De divisione philosophia*, ch. 1, ed. L. Baur, in *Beiträge zur Geschichte der Philosophie und Theologie des Mittelalters*, IV/2-3 (Münster: Aschendorffschen Buchhandlung, 1903), p. 15]. Therefore, I prefer to consider *sermocinalis* and *mathematica* as referring to respectively the realms of language (i.e. logic, grammar, dialectics, rhetoric...) and of abstractive/quantitative sciences (i.e. physics, astronomy, and so forth).

treatises, and the care in preservation that was sought by these imperial patrons. According to Giuseppina Brunetti, the mention of these "bookshelves" ["armaria"], which contained the extant "manuscripts" ["volumina"] of the Staufen library, is an actual "manifestation of an historical problem,"[6] that of the consistency and presence of an imperial manuscript collection at court. The interesting plural in which the substantive *armarium* is declined is equally relevant because the prevalent occurrences of the word are in the singular, thus showing that in the Staufen court the manuscript collection must have been substantial.[7] And yet, very few of these volumes have been preserved to the modern era, thus testifying to such a high degree of dispersion that Brunetti links it to the *damnatio memoriae* of the Staufen dynasty post the Battle of Tagliacozzo (1268).[8]

My research analyzes the physiological and psychological tenets of the Sicilian poets and the scientific sources that these poets had available. By starting with a discussion of Giacomo's image of the lady painted in the heart, I will reassess the previous scholarship on the topic and will redirect the debate to the Aristotelian paradigm at stake. In doing so, I will also consider the various interpretative trends on Aristotelian physiology of sense perception and consider the ways in which the poetry of the Sicilian school may give us an insight into this dialectic.

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[6] Brunetti, *Il frammento inedito* cit., p. 139ff. My translations.

[7] Ibid., p. 137ff. On the quantification of Medieval libraries, see also Armando Petrucci, "Le biblioteche antiche," in *Letteratura italiana*, dir. A. Asor Rosa, 7 vols. (Turin: Einaudi, 1983), vol. 2: *Produzione e consumo*, pp. 528-54, in particular pp. 532-33. Brunetti discusses also the possible abodes of the library, since Frederick II never resided permanently in Sicily during his reign. If one of the locations might have been in Palermo or elsewhere (Messina? Puglia?), another "portable" collection must have followed the emperor and his officials during his travels, to execute the bureaucratic functions of the state chancery, and probably to provide the cultural leisure to which they were accustomed.

[8] Brunetti, *Il frammento inedito* cit., p. 136.

1.2 De-Gallicizing Giacomo's *cera*

The attention devoted to the individuation of physiological issues in the phenomenology of love and the theoretical characterization of these medical problems are without doubt two of the main threads that identify the poetry of the Sicilian school.[9] The trope of the image inscribed within the heart of the lover is indelibly related to the poetical production of Giacomo da Lentini, the *Notaro* of the Staufen chancery. Though scarce documentation survives, it is possible to ascribe his poetical and official activity at court already during the second decade of the 13th century. The role of literary founder of the Sicilian school is brought out by the high percentage of intertextual tributes that his fellow poets paid to him.[10]

According to Antonelli, the motif of the image in the heart is already present in the influential troubadour Folquet de Marselha's *En chantan m'aven a membrar* [BdT 155.8] and *Tan mou de cortesa razo* [BdT 155.23], who in turn borrowed it possibly from Bernart de Ventadorn's *Lancan folhon* [BdT 70.24]. However, nor Antonelli nor other scholars in the field

[9] *I poeti della scuola siciliana*, edizione promossa dal Centro di studi filologici e linguistici siciliani (Milan: Mondadori, 2008). Vol. 1: *Giacomo da Lentini*, critical ed. R. Antonelli; vol. 2: *Poeti della corte di Federico II*, dir. C. Di Girolamo; vol. 3: *Poeti siculo-toscani*, dir. R. Coluccia. Every citation from Giacomo da Lentini and the poets of the Sicilian school is from this edition, with reference numbers in square brackets.

[10] Antonelli, *Giacomo da Lentini* cit., shows in his running commentary all the intertextual references to Giacomo in the later poetical tradition. On the metrical methods of Giacomo and his followers, see also Roberto Antonelli, "Rima equivoca e tradizione rimica nella poesia di Giacomo da Lentini. I. Le canzoni." *Bollettino del Centro di studi filologici e linguistici siciliani* 13 (1977), pp. 20-126. See also n. 71 for the exact bibliographical references on Giacomo's biography.

discuss the scientific background of this image.[11] The Provençal tradition is arguably one of the main sources of inspiration in the poetry of the Sicilians, and one to which we have dedicated much critical attention, both for the stylistic and linguistic borrowings and for the history of the manuscript canon that transmits these poems.

Folquet plays without doubt one of the main roles among the models of the Sicilians, and notably for Giacomo, who in *Madonna, dir vo voglio* [1.1] translates quite faithfully Folquet's *A vos, midontç* [BdT 155.4]. The canzone has received a special place in the manuscript tradition of the Siciliani altogether, thus reinstating the crucial role that Folquet and the literary canon that he embodies played in the poetry of the Sicilian school. As a matter of fact, this canzone opens not only the first quire of the Vatican manuscript [V = City of the Vatican, Biblioteca Apostolica Vaticana, MS Vat. Lat. 3793], but it is also placed in a relevant position of the Pisan section of the Laurenziano manuscript [L = Florence, Biblioteca Medicea Laurenziana, MS Redi 9], thus possibly sharing a common archetype for the Sicilians.[12]

It is not surprising then to see that Folquet's poetry informed the trope elaborated by Giacomo. Folquet comes from a poetical trend that, in both the North and the South of France, saw in the semantic constellation of the heart (Occ. *cor*) and the body (Occ. *cors*) the emerging

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[11] Although focusing exclusively on the previous and subsequent literary tradition of the trope, see Antonelli, "Rima equivoca e tradizione rimica" cit., pp. 43-46, 73n; Maria Picchio Simonelli, "Il 'grande canto cortese' dai provenzali ai siciliani." *Cultura neolatina* 42 (1982), pp. 201-38; Francesco Bruni, "Le costellazioni del cuore nell'antica lirica italiana," in *Capitoli per una storia del cuore. Saggi sulla lirica romanza*, ed. F. Bruni (Palermo: Sellerio, 1988), pp. 79-118; Franco Mancini, *La figura nel cuore fra cortesia e mistica. Dai Siciliani allo Stilnuovo* (Naples: ESI, 1988), pp. 41-65; Aniello Fratta, *Le fonti provenzali dei poeti della scuola poetica siciliana. I postillati del Torraca e altri contributi* (Florence: Le Lettere, 1996).

[12] See Antonelli's *cappello introduttivo* to *Madonna, dir vo voglio*, in *Giacomo da Lentini* cit., pp. 5-10, both for the philological issues at stake and the persistence of the debate in the Duecento tradition.

tension of the lyric I, a dichotomy which has been explored at length in the Provençal also thanks to the equivocal rhyme and homophony possible in its linguistic and metrical system.[13]

In *En chantan m'aven a membrar* [BdT 155.8], both "la dolor / e·l mal d'amor" ["the pain and lovesickness," vv. 3-4], are linked by Folquet to the art of singing for *midons*,[14] the very same lady who is inscribed in the heart of the poet: "qu'inz el cor port, domna, vostra faisson" ["that I carry your image, lady, in my heart," v. 9].[15] The troubadour is fated by Love to carry around the image of the lady in his chest, since "Amors [...] el cor vos mi fai portar" ["Love makes me carry you around in my heart," vv. 11-12], but this correlative representation is not just a *signum* that stands for the woman herself. As stated in the second cobla of the canso, the heart bears the lady, not an image of the lady, and if the poet has to endure some sort of pain (likely from unrequited love), the lady will have to suffer the blow as well:

> E pois mos cors, domna, vos a dinz se,
> si mals l'en ve,

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[13] On the history of this dichotomy, and the importance of the Tristan tradition, see Costanzo Di Girolamo, "«Cor» e «cors»: itinerari meridionali," in *Capitoli per una storia del cuore* cit., pp. 21-48. On the poetical debates on love circulating between Bernart de Ventadorn, Raimbaut d'Aurenga, and Chrétien de Troyes, debates that shook the fundamental issues at stake in courtly ideology, and the long-lasting influence of Thomas of Britain's *Tristan*, see Aurelio Roncaglia, "Carestia." *Cultura neolatina* 18 (1958), pp. 121-37; Costanzo Di Girolamo, "Tristano, Carestia, e Chrétien de Troyes." *Medioevo romanzo* 9 (1984), pp. 17-27; Luciano Rossi, "Chrétien de Troyes e i trovatori: Tristan, Linhaure, Carestia." *Vox Romanica* 46 (1987), pp. 26-62.

[14] A theme not extraneous already to Bernart de Ventadorn, who explicitly connects his poetical production (and value) to his love inspiration. See for instance the cansos *Chantars no pot gaire valer* [BdT 70.15] and *Can vei la lauzeta mover* [BdT 70.43]. Square brackets with the acronym BdT followed by a number refer to Alfred Pillet, *Bibliographie der Troubadours*, ergänzt, weitergeführt un herausgegeben von Henry Carstens (Niemeyer: Haller, 1933).

[15] Citations from Folquet's poems are from the following edition: *Le poesie di Folchetto di Marsiglia*, ed. P. Squillacioti (Pisa: Pacini Editore, 1999). My translations here and elsewhere.

puois dinz es, sofrir lo·us cove.

[And since my heart has you inside, lady, should it bear any suffering, since you are inside, you must endure the same pain too, vv. 16-18]

Thus it is evident that what is inscribed into the heart of the poet is something more than a mere internal representation of an external sensorial object: much like a holy relic or the eucharistic wafer, the image in the heart has a direct correspondence to the referee it ought to represent, so that a wrong inflicted to the poet has repercussions on the beloved lady herself.[16] The mystic qualities of this sacred representation in the heart of the poet are reinstated in *Tan mou de cortesa razo* [BdT 155.23], where the image in the heart is described as the internal chamber to which the memory of the poet sought to come back in the absence of the lady:

Qu'ins el cor remir sa faisso,
e remiran et eu languis,
car ella·m dis
que no·m dara so qu'eu l'ai quis
tan longamen.

[For in my heart I see her face, and I suffer while I gaze at it, since she told me that she will not give me what I asked her for a such long time, vv. 41-45]

The face of the woman is so clearly depicted in the heart of the poet that his emotions are stirred as if he were in the actual presence of *midons*. Although in this canso the attention is given more to the internal reflection of the memorial act rather than to the conflation between representation and external object, as I showed in *En chantan*, the elements that will be crucial in the development of the trope in the Sicilian tradition are nonetheless present. The heart is always

[16] On the possible mystical underpinning of courtly love in the Provençal tradition, see Mancini, *La figura nel cuore* cit. On the theological correlation between holy relics and the object of reverence, although in another context and with a different perspective, see Caroline Walker Bynum, *Wonderful Blood. Theology and Practice in Late Medieval Northern Germany and Beyond* (Philadelphia: University of Pennsylvania Press, 2007).

the repository of the poet's memory, and the place where he can inscribe a tangible sign of the presence of the lady in his faculties.

Folquet and the other troubadours certainly imbued the poetry of the Sicilians with their reflection on the faculties of the heart. Nevertheless, as developed by Giacomo and the other Sicilian poets, the trope of the image painted in the heart is charged with a scientific precision and complexity that goes beyond the original Provençal reference. In Giacomo's *Meravigliosa·mente* [1.2], we see once again the image of the lady inscribed in the heart of the poet, as well as the reference to the mnemonic faculty involved in the process.[17] As does the artist with an external model, so the author paints the figure of the beloved in his heart:

> com'omo che ten mente
> in altro exemplo pinge
> la simile pintura,
> così, bella, facc'eo
> che 'nfra lo core meo
> porto la tua figura.
>
> [As the one who paints similarly to the model looks attentively to that external reference, so do I, my beautiful, who carry your figure inside my heart, vv. 4-9]

Giacomo here emphasizes in the comparison ("com'... così...") the proportion between artist and model, and between lover and beloved image. But the trope is not limited to this artistic juxtaposition: in *Madonna mia, a voi mando* [1.13], the formative process of the image in the heart of the poet is rephrased once again in a context that transcends the original Provençal trope and points toward an entirely unforeseen direction.

While Giacomo in this canzone refers back to the creative process of the "pintura" ["painting," v. 6] described in *Meravigliosa·mente*, in *Madonna mia* he extends the trope of the

[17] For a more articulated and physiological reading of these poems, see the section dedicated in this chapter (1.5 Ut animalium pictura*: Sensation and Memory*).

image and describes it in terms of a molding of shapes in wax. The poet remembers the joy he had on the day when he first shaped his wax with a representation of the beauties of his beloved: "in quello giorno / quando ti formai in cera / le bellezze d'intorno" ["on that day, when I shaped into the wax all of your graces," vv. 42-44]. I distance myself here from the paraphrases offered by Antonelli in his commentary, who reads *cera* only as a Gallicism for "face" (from Fr. *chiere*), and justifies his choice by virtue of the phonematic incompatibility with the rhyme *era* ["I was," v. 42].[18] The metrical structure is allegedly forced by the perfect assonance between vowels, which is virtually impossible in this case because, in fact, Lat. CĒRA, "wax," and Lat. ĔRAM, "I used to be," show two different phonetical evolutions in the Sicilian vowel system, the former being /i/ (that is, Sic. *cira*), and the latter /ɛ/ (It. *era*). In order to get a perfect assonance in the rhyme *cèra*:*èra*, the first one must be interpreted as a Gallicism, that is It. *cera*, "face," with an open /ɛ/ sound.

But none of this is absolutely true from a pure metrical point of view. Antonelli himself, in his *Repertorio metrico della scuola poetica siciliana*, assures that the rhymes between open and close *e* and between open and closed *o* do not necessarily imply an incorrect rhyme, but are instances of a true Sicilian rhyme, which in this *Repertorio* he defines as a "rima siciliana del secondo tipo" (rmsic 2).[19] According to D'Arco Silvio Avalle's *Omofonario*, upon which Antonelli's metrical conclusions are based, Sicilian vowels derived from Lat. Ō and Ē (in tonic position) may rhyme both with Ū and Ī (in tonic position), but also with Ŏ and Ĕ (always in tonic

[18] Antonelli, *Giacomo da Lentini* cit., pp. 295-96.

[19] Roberto Antonelli, *Repertorio metrico della scuola poetica siciliana* (Palermo: Centro di studi filologici e linguistici siciliani, 1984), lxi-lxii. All the examples analyzed in the course of his study and relevant to our discussion are listed under the rubric rmsic 2.

position).[20] These phenomena can be interpreted as a reflection of a Latinate pronunciation, in which every *o* and *e* sound has indifferently an open sound, respectively /ɔ/ and /ɛ/.[21]

In addition to this purely theoretical background, there is enough textual evidence in the poetry of the Sicilians to guarantee the validity of this approach. Numerous *Reimbildungen* prove possible these kinds of rhymes, as for instance in Guido delle Colonne's *La mia vit'è sì fort'e dur'e fera* [4.3], where we can read a verse like "anzi distrugo come al foco cera (: uv'era)" ["on the contrary, I melt like wax on the fire," v. 3], or the anonymous *Quando la primavera* [25.8], which shows the opposite phonetic case in the lines "l'amorosa cera (: e la sera)" ["the beloved face, and the evening," vv. 20].[22]

As a result of this clarification, my hermeneutic suggestion for Giacomo's *Madonna mia* of a plainer syntactical construction of *formare* + complement of matter introduced by *in*[23] is strengthened by philological and metrical arguments, while Antonelli's rather convoluted

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[20] See *Concordanze della lingua poetica italiana delle origini*, ed. D'A.S. Avalle, Accademia della Crusca (Milan-Naples: Ricciardi, 1992), vol. 1, p. ccxxviii-ccxxix.

[21] See Gerhard Rohlfs, *Grammatica storica della lingua italiana e dei suoi dialetti* (Turin: Einaudi, 1996; original German edition 1966-69), vol. 1: *Fonetica*, pp. 70ff and 88ff. On the same note, see also Aldo Menichetti, *Metrica italiana. Fondamenti metrici, prosodia, rima* (Padua: Editrice Antenore, 1993), p. 508.

[22] Note that here *cera* must be taken solely as a Gallicism for "face," and thus with an open /ɛ/ sound, while *sera*, "evening," derives from Lat. SĒRA.

[23] See for instance the parallel construction individuated – but then rejected – by Antonelli in Chiaro Davanzati's *Per la grande abondanza*: "fue in terra formata / la gioia del mondo" ["the joy of the world was created on earth," vv. 17-18]. Quotation from Chiaro Davanzati, *Rime*, ed. A. Menichetti (Bologna: Commissione per i testi di lingua, 1965). My translations.

interpretation of the line does not fully render the meaning of the expression.[24] My hermeneutical proposition makes Giacomo's lexical choice of utmost interest, since It. *cera*, "wax," is not just extremely rare in the Italian lyric lexicon, but also in the Provençal corpus, and it has never been associated before with the cognitive faculties of the heart. Data retrieved from Peter Rickett's *Concordance de l'Occitan médiéval*[25] show that Marcabru and Raimbaut d'Aurenga use the word in a gnomic sense in the expression "triar lo mel de la cera" [to separate the honey from the wax], possibly to mean the ability to distinguish between what is good and what is superfluous (but the overall significance of the proverb is difficult to ascertain), while Raimon de Miraval uses it in "ab queirs de cera" ["with pebble of wax"] to denote the malleability of his defense against the hard stones that hit him.

It is thus almost safe to affirm that the image of the portrait engraved in the wax of the heart is not a debt towards the Provençal encyclopedic natural tradition, but rather a telling – and original – innovation of Giacomo's reservoir of tropes. The image however is commonly read as an allusion to the episode of *la salle aux images* portrayed by Thomas d'Angleterre, during the

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[24] As a matter of fact, Antonelli's commentary proposes a reading of line 43 as "ritrassi nel volto, nei sembianti," but the overall meaning of vv. 43-44 (possibly something like "I sketched in the face all of your beauties"? But how could this portrait give the pleasure mentioned in the previous lines?) is not clear and thus left unexplained. Not opposed to my interpretation is Gianfranco Folena, "Cultura e poesia dei Siciliani," in *Storia della letteratura italiana*, dir. E. Cecchi, N. Sapegno, 9 vols. (Turin: Einaudi, 1970), vol. 1: *Le origini e il Duecento*, pp. 273-347, p. 306, who proposes a paraphrases closer to mine, and highlights as well the equivocal rhyme *cèra*:*céra* in Alberto da Massa's *Donna, meo core in parte*, in a context that shows many intertextual similarities with Giacomo: "Sì come ne la cera / quando ['n]taglio si pinge, / così lo vostr'aspetto / e l'amorosa cera / Amore in cor mi pinge, / onde gioire aspetto" ["As when one engraves into the wax, so Love engraves in my heart your appearance and lovely face, hence I wait for my joy," vv. 61-66]. In *Poeti del Duecento*, dir. G. Contini, 2 vols. (Milan-Naples: Ricciardi, 1960), vol. 1, pp. 359-61.

[25] Peter T. Ricketts, *Concordance de l'Occitan médiéval* (Turnhout: Brepols, 2001-). Electronic resource.

end of the third quarter of the 12th century, in the Turin fragment of his *Tristan et Yseut* (vv. 1095-1144).

The episode narrated by Thomas describes the heartbreaking situation in which Tristan finds himself after he married Yseut aux Blanches Mains. Despairing to ever see the other Yseut again (Yseut la Blonde), Tristan has himself built a secret room inside a forest cave where he puts a statue of Yseut and of her attendant Brangien, and in this desolate abode he cries his eyes out in the absence of his beloved. The material presence of a physical substitution of his beloved Yseut is addressed in the long dialogues that Tristan has with the statues. He had these artifacts built,

> Que dire li volt son corage
> Son bon penser e sa fole errur,
> Sa paigne, sa joie d'amor.[26]
>
> [Because he wants to reveal his true heart to them, his nicest feelings and his mad confusion, his love's labors and his joys, vv. 1139-42]

His desperate state is cause by the repression of his love for Yseut, who is still married to King Mark. Thomas analyses in this scene the fragmentation of the self between the body and the heart, a trope that, as we have seen above, is tremendously influential in the troubadour tradition as well: Tristan has the heart of Yseut la Blonde, but cannot have her body; King Mark has the body, but cannot have the heart of his wife. The tension is redoubled and exploited in this figurative creation that is the room of images, where the statue of Yseut stands for the queen, while it truly stands for her physical absence from Tristan:

[26] Quotations from Thomas of Britain are from *Tristan et Yseut. Les premières versions européennes*, dir. C. Marchello-Nizia (Paris: Gallimard, 1995). My translations here and elsewhere.

Entre ces quatre ot estrange amor:
Tut en ourent painne et dolur,
E un e autre en tristur vit,
E nus d'aus nen i a dedeuit.

[Among these four – i.e. Tristan, Yseut, King Mark, and Yseut aux Blanches Mains – there is a painful love: they all feel pain and torment, they all live a melancholic life, and nobody has pleasure from it, vv. 1165-68]

Although well-known among the Sicilian poets, the romance of *Tristan et Yseut* is not the only candidate as a possible source behind the trope of the image painted in the heart, as developed by Giacomo. In the original French text, there is no textual evidence connecting the two tropes together, nor does the situation represented show any kind of resemblance: in the Tristan romance, the statue stands for the distressing absence of the beloved lady; in Giacomo, the portrait in the heart is the mnemonic act of his love joy.

Both Aurelio Roncaglia and Roberto Antonelli individuate in this text the antecedent for Giacomo's trope,[27] and the latter goes on even further in affirming that a later reader of Giacomo, the Siculo-Tuscan poet Guittone d'Arezzo, contaminated these verses with *Meravigliosa·mente* in his poem *Se de voi, donna gente* (vv. 106-110, as copied in L[a]). But the contaminated reception of the Tuscan poet bears no evidence to Giacomo's original dependence on Thomas in *Madonna mia*, since neither in the French romance nor in Guittone is there any

[27] See Aurelio Roncaglia, "La statua d'Isotta." *Cultura neolatina* 31 (1971), pp. 41-67, and Antonelli *ad locum*. Roncaglia explicitly connects Giacomo's image to the *Roman de Tristan* and the "querelle des images" reconstructed in his pages: according to him, it is not possible to understand Giacomo's line without the *Tristan* episode, together with the "philosophy of beauty" read at the Staufen court. Although much of the context evoked is of utmost interest for our discussion, the Aristotelian trace that I analyze in these pages has not yet been taken into account.

reference to wax molding.[28] It does however show Guittone's intertextual relation with Giacomo's *Meravigliosa·mente*, but in a hermeneutical context that underlines merely the artistic meaning of "pintura" (via the allusion to Thomas's statue) and no other physiological understanding of the phenomenology of love.

Based on the metrical evidence that I propose, I therefore discard the Tristan allusion as solely generative for Giacomo's trope of the image molded in the heart of the poet. Instead I argue, thanks also to parallel loci in other poems of the court, that the Sicilians' lexical and rhetorical choices point towards a scientific milieu keen on Aristotelian physiology, not far from the well-known philosophical trends of the House of Hohenstaufen.

The idea of a virgin cognition before sensorial perception is a knot in the study of the functions of the soul that links Aristotle's psychological treatises with his biological and physiological works. Thus, the image painted in the heart of the Sicilian poet does not merely demonstrate reverence for French and Occitan literary models, but shows a fully-fledged use of scientific resources for the representation of sense-perception, memory, and the other internal powers of the soul. In the following pages, I will discuss the hermeneutical conundrum of the Aristotelian primary texts that deal with this issue vis-à-vis the poetry of the Sicilian school, in order not only to enlighten the tight bonds with this philosophical authority, but also to underline the overall interpretation at the core of this reading.

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[28] In Antonelli's commentary *ad locum*, Guittone's poem reads: "una statov'ò, donna, a voi sembrante, / che li me sto davante, / sì como l'omo face a la pentura / de Dio, in sua figura" ("I have in front of me a statue that is like you, my lady, as the one who worships the painted ikon of God," vv. 106-109). While I agree with Antonelli on the Tristan allusion in these verses, I do not take them as evidence for Giacomo's dependence on the Tristan romance: the fact that Guittone is contaminating Giacomo's image with Thomas does not confirm a correct interpretation of Giacomo's original.

1.3 Aristotle's Psycho-Physiological Project

Aristotle described the physiological processes of the human mind in a series of texts that link the psychological treatise *De anima* to a collection of seven short essays (known as *Parva naturalia*) and his other biological works (collectively known in the Middle ages as *Libri de animalibus*). Since the work of the German philosopher Jacob Freudenthal, the common title of *Parva naturalia* has been believed to be a classification made popular by Aegidius Romanus.[29] But the authenticity of such an affirmation has been recently put in serious discussion by Paolo Cosenza in his edition of the treatise with persuasive arguments.[30]

The short treatises of the *Parva naturalia* were circulating in Latin versions as early as the 12th century, thanks to the translations from Greek of James of Venice (the same translator of *De anima*, *Physica*, and the *vetustissima translatio* of *Metaphysica* I-IV.4) and other anonymous scholars, and were revised again on the original Greek by William of Moerbeke in the 13th century. Thus, with the sole exception of the treatise known as *De juventute et senectute* (also comprising the texts of *De respiratione* and of *De vita et morte*), which had been translated only by James and did not enjoy a wide circulation, the other treatises were well known in the Middle Ages and show a bifurcation in the manuscript tradition: a *translatio vetus* (part of that corpus of translations known as *corpus vetustius*), dating back to the first half of the 12th century and executed by James (for *De memoria and reminiscentia*, *De longitudine et brevitate vitae*, and *De*

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[29] See Jacob Freudenthal, "Zur Kritik und Exegese von Aristoteles περὶ τῶν κοινῶν σώματος καὶ ψθχῆς ἔργων (parva naturalia)." *Rheinisches Museum für Philologie* 24 (1869), I (pp. 81-93), II (pp. 302-419).

[30] See Aristotele, *Parva naturalia*, trad. introd. and comm. P. Cosenza, 3 vols. (Naples: Loffredo, 2013), vol. 1, pp. 37-46. Cosenza ascribed the origins of the title generally to a period between the second half of the 13th century and mid-15th century.

juventute) or by other anonymous translators in the second half of the 12th century (for the three treatises on sleep, namely *De somno et vigilia*, *De insomniis*, and *De divinatione per somnium*; only *De sensu et sensato* is ascribed to a certain Nicholas of Reggio),[31] and a *nova translatio*, part of the project of revision (*corpus recentius*) that William carried forth in re-editing the existing Aristotelian translations, a project to which probably Thomas Aquinas himself gave an important boost.[32]

These treatises of natural philosophy offer a physiological explanation of the cognitive processes described from an analytical point of view in the *De anima*. The treatise on the soul, *De anima*, proposes a coherent and quite complex philosophy of mind, one that still challenges

[31] Not to be confused with the homonymous 14th-century translator of medical texts, according to Griet Galle, "The Anonymous Translator of the *Translatio Vetus* of *De sensu*." *Bulletin de philosophie médiévale* 50 (2008), 105-50. David Bloch, "Nicholaus Graecus and the *Translatio Vetus* of Aristotle's *De sensu*." *Bulletin de philosophie médiévale* 50 (2008), 83-104, proposes however to identify this translator as the Nicolaus Grecus who helped Robert Grosseteste in his Greek-Latin translations, and possibly also as the Nicolaus Siculus who translated Aristotle's *De mundo*.

[32] Since the monumental (and yet ongoing) project of the *Aristoteles Latinus*, the bibliography on the Latin translations of the Aristotelian corpus had become impossible to summarize in just a footnote. For a detailed analysis of the textual transmission of the works, see *Aristoteles Latinus. Codices*, dir. G. Lacombe, 2 vols. (Rome: La libreria dello stato, 1939-55). The groundbreaking works of Lorenzo Minio-Paluello remain still now essential to assessing the philological issues of the translations. See the collection of essays by Lorenzo Minio-Paluello, *Opuscola: The Latin Aristotle* (Amsterdam: Hakkert, 1972). On the transmission and interpretation of the natural treatises, see also *Parva naturalia: saperi medievali, natura e vita. Atti del XI convegno della Società italiana per lo studio del pensiero medievale, Macerata, 7-9 dicembre 2001*, eds. C. Crisciani, R. Lambertini, R. Martorelli Vico (Pisa: Istituti editoriali e poligrafici internazionali, 2004), and *Les Parva naturalia d'Aristote: fortune antique et médiévale*, eds. C. Grellard, P.-M. Morel (Paris: Publications de la Sorbonne, 2010).

philosophers today on their theoretical tenets.[33] What is fundamentally at stake in the interpretation of the Aristotelian texts is the interplay between cognitive faculties and bodily processes, in a direction that anticipates and already overcomes the post-Cartesian issue of the separation between *res extensa* and *res cogitans*.

In an interesting appendix to her study on the physiology of thinking in the works of Aristotle,[34] Giulia Mingucci discusses the reception of his cognitive philosophy in modern and contemporary scholarship. The long-lasting influence of Aristotelian hylomorphism is read as an original solution to the alternative proposals delineated in the course of the 17th and 18th centuries as a response to the philosophy of the Stagirite. Broadly divided into the categories of "dualism" and "materialism," Mingucci traces a history of the reception of Aristotle from René Descartes *Meditationes de prima philosophia* (1641) onward. With hylomorphism, I refer to an understanding of the relationship between body and soul analogous to the one defined by Aristotle between matter (Gr. *hýle*) and form (Gr. *morphé*). The concept is indeed pivotal to the psychological ideas developed by Aristotle in his discussion on the soul, as I will show further in the next pages.

If Descartes's juxtaposition between *res extensa* (i.e., what constitutes the material machinery of the body, subject to the physical laws of nature) and *res cogitans* (i.e., pure

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[33] For instance, *Essays on Aristotle's* De anima, ed. M. Nussbaum, A.O. Rorty (New York: Oxford University Press, 1995) shows how the contemporary interpretations of the Aristotelian text are still part of the modern philosophical debates on the human mind. See also the excellent and explicative appendix "Gli interpreti di Aristotele e le teorie della mente contemporanee," with extensive bibliography, in Giulia Mingucci, *La fisiologia del pensiero in Aristotele* (Bologna: il Mulino, 2015), pp. 269-84, whose scholarship was fundamental for this chapter.

[34] Mingucci, "Gli interpreti di Aristotele e le teorie della mente contemporanee," in Ead., *La fisiologia del pensiero* cit., pp. 269-84.

thinking, an immaterial substance which is free from physical constraints) opens the question of the independence of the mind and its functions, his dualism breaches the Aristotelian understanding of the soul as the fundamental principle of the living powers of the being.

As a way to overcome this irreducible dualism, contemporary philosophy of mind tried to conciliate the two *res* of Cartesianism, in a direction that draws consistently from the original propositions of the Aristotelian texts. If a return to some sort of hylomorphism is a legitimate solution for some of the critics,[35] different understandings of materialism and dualism still pervade the discussion on the mind/body problem. A dualistic approach might see the mind and the body either as two distinct substances, which cooperate in the present time of living of the being (*ontological dualism*), or as two distinct properties of the same substance, which can be described and analyzed from two different perspectives, one psychological and the other physical (*conceptual dualism*). On the other hand, materialism reduces the cognitive functions of living beings to their physical manifestations, either on both the ontological and descriptive level (*reductionist materialism*, *strong materialism*), or merely on the ontological level, whilst admitting some independence on the level of explication (*non-reductionist materialism*, *weak materialism*).

In response to Myles Burnyeat's spiritualist understanding of the Aristotelian mind/body problem, where the perceptive functions of the soul are understood just as "spiritual changes,"

[35] Especially in the works of Richard Sorabji, who radically differs from Myles Burnyeat's (see note below). Sorabji's articulation of a moderate hylomorphism is not as committed as David Charles's theory of inextricability (on which see below), but certainly they both recognize in Aristotle an attention to physical change as much as a formal one. See Richard Sorabji, "Body and Soul in Aristotle." *Philosophy* 49 (1974), pp. 63-89; "Intentionality and Physiological Processes: Aristotle's Theory of Sense Perception," in *Essays on Aristotle's* De anima cit., pp. 195-225; "Aristotle on Sensory Processes and Intentionality: A Reply to Myles Burnyeat," in *Ancient and Medieval Theories of Intentionality*, ed. D. Perler (Leiden-Boston: Brill, 2001), pp. 49-61.

thus negating any sort of physiology of thinking,[36] and responding as well to the dualistic and materialistic approaches delineated above, David Charles pushed Aristotelian hylomorphism even further in his theory of psycho-physiological inextricability.[37] While returning to a painstaking analysis of the *De anima*, Charles argues that Aristotle's understanding of the soul/body relationship shows a formulation that is "inextricably psycho-physical, non-decomposable into two types of activities."[38] Thus to have a correct perception of how a cognitive function of the living being works according to Aristotle, it is not possible to separate at any level the psychological events from its physiological epiphenomena, because "the specific material process is itself inextricably psycho-physical, inseparable in thought from the formal features characteristic" of the mental operation.[39]

In the following pages, I will subscribe to an interpretation of the Aristotelian natural treatises that is based on Charles's theory of psycho-physical inextricability and that has been further developed by Mingucci in her recent monograph on the subject. In this way, my aim is to

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[36] Drawing from Thomas Aquinas's theory of intentionality and Aristotelian commentaries, Burnyeat articulates his interpretation in different contributions, among which see Myles Burnyeat, "Is an Aristotelian Philosophy of Mind Still Credible? (A Draft)," and "How Much Happens When Aristotle Sees Red and Hears Middle C? Remarks on *De Anima* II, 7-8," both in *Essay's on Aristotle's* De anima cit., pp. 15-26, 421-34; "Aquinas on «Spiritual Change» in Perception," in *Ancient and Medieval Theories of Intentionality* cit., pp. 129-53; "*De Anima* II 5." *Phronesis* 47/1 (2002), pp. 28-90.

[37] See David Charles, "Aristotle's Psychological Theory." *Proceedings of the Boston Area Colloquium in Ancient Philosophy* 24 (2008), pp. 1-29, and "Aristotle on Desire and Action," in *Body and Soul in Ancient Philosophy*, ed. D. Frede, B. Reis (Berlin: De Gruyter, 2009), pp. 291-307.

[38] See Charles, "Aristotle's Psychological Theory" cit., p. 1.

[39] Ibid., p. 13.

highlight how Aristotle's philosophy of sensorial perception cannot be separated from his physiological description of sensitive faculties. Mental events happen in an enmattered-for-a-reason organic body. Thus the treatise *De anima* needs to be read in conjunction with the natural books on animals and the *Parva naturalia* to fully grasp its psychology at core. I will also argue that the poets of the Sicilian school understood the Aristotelian treatises in a heavily enmattered fashion (although any subscription to a post-Cartesian interpretation would be an unnecessary stretch), and that the attention given to the physiology of thinking and the bodily components of sensation is an essential part of their reception of the Aristotelian natural philosophy.

As delineated in the second book of *De anima*, the hylomorphic unity described by Aristotle means that the soul is the unifying principle of the mind/body relation, and it guarantees the teleological determinism of the living animal, while realizing the functional endurance of all its parts. Every definition of the soul that Aristotle gives in his treatise restates the function of this unity: the soul is the "actuality of the first kind [i.e. form] of a natural organized body" (*De an*. II 1; 412 b 5-6) which has "life potentially in it" (*De an*. II 1; 412 a 29).[40] The mention of a "natural organized body" is of essential importance for the overall discussion, since it is previously defined as "a body which is organized" (*De an*. II 1; 412 a 29), a definition that translates the original Greek neuter adjective ὀργανικόν, "instrumental, organized for a purpose," and not merely "composed of organs." As explained in *De partibus animalium*, since every instrument and every organ exists and operates for the sake of something, "the whole body must

[40] Translations of the Aristotelian texts are from *The Complete Works of Aristotle: The Revised Oxford Translations*, ed. J. Barnes (Princeton, NJ: Princeton University Press, 1984), with chapter divisions from the Didot edition *Aristotelis Opera omnia graece et latine*, and lines from Bekker's *Aristotelis Opera*, as per usual. Occasional quotations from the original Greek text may occur, and they are all from the Clarendon editions («Oxford Classical Texts»).

evidently be for the sake of some complex action" (*De part. an*. I 5; 645 b 14-20), thus reaffirming the importance of instrumentality that is inherent to a natural body.

The finalistic argument brought forth by Aristotle with respect to the definition of the bodily structure stresses the importance of a full realization in the physiology of human nature (but as we know, in all the operations of Nature as well). As every body is composed of elements, any further aggregation is made for the sake of the proper operation executed by the parts (*De part. an*. I 5; 645 a 33-645 b 1). And as every composition is made for the sake of the formation of the body, ultimately the body is made for all the activities of the living being, i.e. its soul (*De part. an*. I 5; 645 b 15-30). Thus the elements (i.e. earth wind fire and water, taken as the combination of their primary qualities – wet and dry, cold and hot) aggregate "for the sake of" the homogeneous parts (bones, flesh, blood, and such), and these latter are composed in heterogeneous parts (nose, hands, organs, and all the other parts of the body) "for the sake of" the primary functions operated by the parts themselves.

By carrying out the functions of life, the body realizes its proper function, and since in *De anima* Aristotle defines life [Gr. ζωή] as "self-nutrition and growth and decay" (*De an*. II 1; 412 a 14), the basic vegetative functions of the soul are the foundation of all the higher functions of the natural bodies.[41] Living is for the natural body the capacity to grow and decay, to feel and move accordingly, to perceive and think, even though not every body in nature is able to carry out all of these functions (*De an*. II 2; 413 a 21-25).

The soul, in being the thing "by which primarily we live, perceive, and think (*De an*. II 2; 414 a 13-14), is the principle of such faculties, and thus is defined by operations of the natural

[41] A principle also states in *De juv. et sen*. 3, 469 a 5-7: "The functions relative to nutrition exercised by the other parts are ancillary to the activity of the heart."

body. The soul is thus in this sense the "actuality of the first kind" of the potential life inscribed in the organic structure of the natural body, a body that is "somehow [...] made for the soul, and each part of it for some subordinate function, to which it is adapted" (*De part. an*. I 5; 645 b 19-20). As poignantly summarized by Mingucci, if the soul is conceived as form and actuality of an instrumental body, it necessarily implies that the body is appropriate for the functions and the realizations carried on by the soul, to which it is hylomorphically united: the body is thus, as it were, a matter that is appropriated for this specific soul, not any matter.[42] The "appropriateness" of the body for the soul, and the interrelation between the functions of the soul as realizations of the completeness of the body, create an indissoluble link between the two, for the soul is the "substance in the sense which corresponds to the account of a thing [i.e. substance as form; Gr. οὐσία γὰρ ἡ κατὰ τὸν λόγον]," and so "it is what it is to be [i.e. essence as form; Gr. τὸ τί ἦν εἶναι]" for the body described above (*De an*. II 1; 412 b 11-13). These definitions, by referring to the metaphysical concepts of potency and act, cut through any discussion about the unity of body and soul, and makes the *synolon* between the two stand out as inextricable.[43]

As reinstated by Aristotle in discussing the interplay between bodily factors and cognitive faculties in the development of the embryo, "those principles whose activity is bodily [such as sense-perception] cannot exist without a body, e.g. walking cannot exist without feet" (*Gen. an*. II 3; 736 b 22-23). This statement can and should be used also in the discussion on the physiology of the sensitive faculty, since in different places of *Parva naturalia* and other

[42] Mingucci, *La fisiologia del pensiero* cit., p. 37. See also Charles, "Aristotle's Psychological Theory" cit., pp. 13-25.

[43] On the inextricability of body and soul, and the radical hylomorphism to which he is subscribing, see also Charles, "Aristotle's Psychological Theory" cit., pp. 28-29.

biological treatises, Aristotle explores which parts of the body are at work in sense-perception, and most importantly in the retention of what is collected and stored in memory after perception. And thus in the investigation of the physiology of thinking, Aristotle pays attention to the localization and description of the body parts involved in the cognitive faculties of sensation and memory. Between the biological and psychological treatises, Aristotle demonstrates clearly that movement and sensation are strictly related to one another.

The work *De motu animalium* is precisely dedicated to the source of movement in animals, and it is assumed by Aristotle that the origin of it is in the heart. With the alternating contractions and relaxations of the cardiac region, the animal has a physical principle that accounts for its movement, and since the alteration in the physiological systoles and diastoles is subject to the possible reactions to the environment (for instance, fear or desire), sense-perception accounts for movement as well, while originating in the same bodily part: as Aristotle writes, "the sensorium is in our opinion in the center too; and so, if the region of the origin is altered through sense-perception and thus changes, the adjacent parts change with it and they too are extended or contracted, and in this way the movement of the creature necessarily follows" (*Mot. an*. 9; 702 b 20-24). Located in the center of the animal, the principle of sensation can justify movement through all the limbs and parts of the body of the animal (by means of the *pneuma*),[44] and thus the cardiac area is charged with the physical explanation of the source of both locomotion and perception.

[44] Although from a functionalist perspective, on *pneuma* as a connective principle between sensation and movement, see Martha Nussbaum, "The *Sumphutun Pneuma* and the *De Motu Animalium*'s Account of Soul and Body," in *Aristotle's* De Motu Animalium, ed. and transl. M. Nussbaum (Princeton: Princeton University Press, 1978), pp. 143-64.

As explained in *De anima*, sense-perception is a sort of alteration and movement happening in the natural body, since "sensation depends [...] on a process of movement or affection from without, for it is held to be some sort of change [Gr. ἀλλοίωσίς τις] of quality" (*De an*. II 5; 416 b 33-34). This explanation is given again by Aristotle in terms of movement from potency to act (*De an*. II 5; 417 a 6-9), or from a state of privation (i.e. ignorance) to a state of possession (i.e. knowledge; *De an*. II 5; 417 a 20-417 b 2). The process of being acted upon by the sensible object [Gr. πάσχειν] exists thus in a sort of alteration of the senses themselves, in which they become similar (potency → act) to the things perceived (already in act). The change that affects sensation is in the actualization of the potency already intrinsic to the senses, by means of a principle that states the identity between sensors and sensible things, since "what has the power of sensation is potentially like what the perceived object is actually," meaning that, "while at the beginning of the process of its being acted upon the two interacting factors are dissimilar, at the end the one acted upon is assimilated to the other and is identical in quality with it" (*De an*. II 5; 418 a 3-6). While it is yet dissimilar to the perceived object, perception holds in potency what is already in act in the object perceived. Aristotle's definition of sensation is thus linked to the correct apprehension of this "some sort of change" that he describes in *De an*. II 5. As pointed out by Giovanna Giardina, Aristotle's semantic caution both references back to his other physical books (namely, for a theory of becoming and alteration, *Physica* III 1-3 and *De generatione et corruptione* I 7-9), while stressing the differences between the alteration inherent to sense-perception, and alteration per se.[45] What happens in the senses during perception is not

[45] See Giovanna Giardina, "Sensazione e alterazione in Aristotele, *De anima*, II 5." *Documenti e studi sulla tradizione filosofica medievale* 25 (2014), pp. 29-65. While discussing both Burnyeat's and Sorabji's analysis of these passages, Giardina carefully distinguishes between a physical alteration (i.e. movement) and metaphysical alteration (i.e. entelechy) of the sense-organ.

an alteration that entails the destruction of opposing qualities (as in the process of heating some cold water, where the quality of coldness is destroyed and replaced by the opposed quality of hotness), but more of a potency already present in the sense itself that becomes activated: the sensitive soul runs towards its own entelechy, and realizes its own potency of possessing the thing perceived, while being already in a state of act in and of itself.

This elucidation somewhat clarifies the puzzling passage of *Physica* III 3, 247 b 1-13, where it is stated that thought is a "state of rest" and a "standstill," for it is necessary to understand in what way the term "becoming" is used in different contexts: "there is no becoming of the actual use and activity of these states, unless it is thought that there is a becoming of vision and touching and that the use and activity in question is similar to these" (*Phys*. III 3; 247 b 6-8). The sensitive soul is already entelechy of the body, as we have discussed above, thus being act of the organic body. But in sense-perception, to this state of rest another perfection is added, as it were, where the senses can finally fully realize their own individual dispositions "in the use and activity" of the sensory power. As Aristotle concludes, "it is evident, then, from the preceding argument that alteration and being altered occur in sensible things and in the sensitive part of the soul and, except accidentally, in nothing else" (*Phys*. III 3; 248 a 5-8), thus arguing for a position that sees in the soul the unmoved mover of sensorial alteration.[46]

[46] See Giardina, "Sensazione e alterazione in Aristotele" cit., particularly pp. 63-65. See also Philip van der Eijk, *Medicine and Philosophy in Classical Antiquity: Doctors and Philosophers on Nature, Soul, Health and Disease* (Cambridge: Cambridge University Press, 2005), pp. 219-20, although he stresses too rigidly the distinction between cognitive and physiological components.

1.4 A Mechanics of Sense-Perception

Sense-perception can thus be described as some sort of movement, in the same fashion as imagination is said to be a movement resulting from a sensation in act (*De an*. III 3; 428 b 10-20). In being a sort of alteration in the sensors, which are somehow affected by the external object that is being perceived, there is a movement from potency to act and a transfer of perception that accounts for understanding. As explained in *De sensu et sensibilia*, "perception is due to a process set up by the perceived object in the medium between this object and the sensory organ; due, that is, to contact, not to emanations" (*De sens*. III; 440 a 18-20). While being altered by the external object, the potency of the sensor is actualized by the contact itself, which produces an impression that is eventually elaborated by sensation. But where in the body does this alteration take place? In his study on the medical physiology of mind, Philip van der Eijk further analyzes the alleged cardio-centrism of Aristotle's biological and psychological works.[47] According to van der Eijk, it is not correct to postulate the localization of the cognitive faculties in the heart of the animal, since Aristotle never discusses the physical location of the highest psychic faculty of the *noûs*: "Aristotle was credited in late antiquity with the view that 'the soul,' or at least its leading principle (the *archē*), is seated in the heart. We will see that this is a misrepresentation of Aristotle's views, which, strictly speaking, leave no room for location of the highest psychic faculty, the *nous*."[48] The argument proposed by the scholar however seems to be ill-suited, because Aristotle's definition of the soul, as we have seen, cannot be reduced to its mere noetic faculty, which pertains just to humans in the rational soul.

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[47] See van der Eijk, *Medicine and Philosophy in Classical Antiquity* cit., especially pp. 119-35, 206-37.

[48] Ibid., p. 122.

There is another spectrum of psychological potencies that van der Eijk overlooks, and that are indeed referenced by Aristotle as placed in the heart. Just for the start, there are instances in which Aristotle speaks of the heart as the *archē* of the body and, as I have briefly mentioned above, as the central sensorium of the animal. As van der Eijk is forced to admit, in *De partibus animalium* the different sizes of the heart are interpreted in light of the different behavioral characteristics of the animals and their emotional susceptibility (*De part. an*. III 4; 667 a 10-20), while the quality and consistency of the blood has an influence on the nature of sense-perception and the intelligence of the animal (*De part. an*. II 2, 648 a 2-5; II 4, 650 b 20-25; II 10, 656 b 3-5). But even though the Aristotelian position on the sensitive foundations of cognition is well known, van der Eijk still argues that, on the basis of the separable, impassible, and unmixed quality of the intellect described in *De anima* III 5, the nature of thinking cannot be placed in the heart. That argument does not seem entirely correct also because the cognitive process needs to be connected with the sensitive basis of perception in order for it to first happen: as Aristotle says, "imagination is different from either perceiving or discursive thinking, though it is not found without sensation, or judgement without it" (*De an*. III 3; 427 b 14-15).[49] Hence the passionate defense of a non-corporeal theory of cognition in Aristotle falls once again within the false paradigm shown above, and does not come to terms with an intrinsic psycho-physical nature of thinking.

As explained by Aristotle, the external sensible object is perceived by the senses: every single one of the five senses perceives what is proper to it, i.e. color is perceived by sight, sound by hearing, and so forth. In order for sensation to take place, it is necessary that the sensor

[49] See also the analogous statement of *De mem. et rem*., 450 a 1: "without an image thinking is impossible;" and *De an*. III 7, 431 a 17: "the soul never thinks without an image."

receives the impression of the sensible through the aid of its medium, because, as expressed already in *Physica*, "it is impossible to move anything either from oneself to something else or from something else to oneself without being in contact with it" (*Phys*. VII 2; 244 a 14-b 1). As argued by Mingucci, the need for an intermediary between sensor and sensed object is instrumental to the inherently psycho-physiological qualities of sensation, since in every perception a sensor is subject to the act of a determined object, meaning that the sensor is in potency what the object is already in act.[50] The senses need to be affected by the medium, which can thus assume the qualities of the external object. For instance, in the eyes the medium is transparent "in order to" receive any possible color, since transparency can be actualized and give way to chromatic difference. The potentiality inherent to the sensors is on the same order as the "instrumentality" of the different parts of the body, with respect to the functionality of the whole animal. For this reason, perception can be understood as the entelechy of the sensors, their "completion" [Gr. τελείωσις].[51] The object is starting to assume a tridimensional quality with respect to its different features. But for the perceiving subject, in order to grasp the totality of perception, it is necessary to collect and process all the different sensorial data in one unitary image of the object. This part of the soul receives what has been already processed by the senses and re-composes it in one single dimension.

What results at the end of the first degree of sensation is an impression stored in the sensors of what the external object is about. This impression remains somewhat vaguely active in

[50] On *De an*. II 11, 424 a 1-2, and the physical nature of sense-perception, see Mingucci, *La fisiologia del pensiero* cit., pp. 113-33.

[51] On the meaning of this "completion," see Mingucci, *La fisiologia del pensiero* cit., p. 132. See also Giardina, "Sensazione e alterazione in Aristotele" cit., pp. 63-65.

the senses themselves, since "a sense is what has the power of receiving into itself the sensible forms of things without the matter [Gr. ἄνευ τῆς ὕλης], in the same way in which a piece of wax takes on the impress of a signet-ring without the iron or gold" (*De an*. II 12; 424 a 18-20).[52] The analogy of the signet-ring in wax is quite revealing of the attitude of Aristotle in this respect. The impression processed by the senses is not a symbolic "scar" left on the sensor, but a trademark that reproduces the essence of the external object in the malleability of wax. This "sensible form of things," now deprived of the material substance of the perceived object, is what can be elaborated further: "the cognition of these objects is effected by the primary faculty of perception [Gr. πρῶτον αἰσθητικόν], and memory even of intellectual objects involves an image and the image is an affection of the common sense," while memory belongs essentially "to the primary faculty of sense-perception" (*De mem. et rem*. 1; 450 a 10-13). Aristotle is returning to a discussion of the faculties of the common sense as described in other passages about sensation in his biological works.

Although for three of the senses (sight, hearing, smell) the localization seems to be in the proximity of the brain, what is said regarding the sense of touch and taste pertains also to sight, smell, and hearing (*Juv*. 3, 469 a 5-23; 4, 469 a 23-27). The quality of the medium proper to touch and taste is similar, since "the organ of touch consists of earth, and the faculty of taste is a particular form of touch" (*De sens*. 2; 438 b 29-30). This is stated because what is perceived by touch and taste is received together with the medium, and not solely "by means of" it: "in the perception of objects of touch we are affected not *by* but *along with* the medium; it is as if a man

[52] See Mingucci, "La cera di Aristotele: un'immagine aristotelica di filosofia della mente." *Philosophia* 7/2 (2012), pp. 87-116, for an articulation of the image in Aristotle and a semantic comparison with other philosophical texts. See also Mingucci, *La fisiologia del pensiero* cit., pp. 113-44.

were struck through his shield, where the shock is not first given to the shield and passed on to the man, but the concussion of both is simultaneous" (*De an*. II 11; 423 b 14-16). Aristotle needs to preserve the analogy between these two kinds of perception and the others because all five senses are said to be "internal." Thus touch is not different from hearing or sight, since thanks to their placement, there is "a complete analogy with all the other senses" (*De an*. II 11; 423 b 24).

The medium communicates the impression to the sensors for sight, smell, and hearing, but for touch and taste the external object impresses its image directly on the sensor, without the need of an intermediary. The communication of images is nonetheless instrumental to the perception of the external object, but its processing and storage is an internal matter, and pertains to the center of sensations, which is the heart. Even though mistakenly considered in relation to some of the senses by other physicians (*Juv*. 3; 469 a 5-23), the brain has no participation whatsoever in the cognitive process of sense-perception, being just a "counterpoise" for the hotness of the heart: "the sensory organ of both touch and taste is closely related to the heart. For the heart, as being the hottest of all the bodily parts, is the counterpoise of the brain" (*De sens*. 2; 439 a 1-2).

Aristotle's polemical remarks are known to be directed towards a physiological trend manifested in some of the works of the Hippocratic corpus. The encephalo-centric theory, while preserving an explanation of the physiological processes of sensation in tune with the spare hints of Alcmaeon and Anaxagoras, further elaborates the connection between sensors and the brain in works of the Hippocratic corpus such as *De locis in homine*, *De morbo sacro*, and *De natura*

hominis.[53] The Stagirite challenges this view in his anatomical and scientific investigations, by arguing for the centrality of the heart in sense-perception, and by disproving the Hippocratic dogma of the origins of the veins in the brain. By addressing directly Polybus's anatomical description of *De natura hominis* 11, Aristotle rewrites the history of the brain as it had been written until then, and points out the critical mistakes of his predecessors: "There are also some writers on nature [...] who all alike agree in assigning the head and the brain as the starting-point of the veins. And in this opinion they are mistaken" (*Hist. an*. III 3; 513 a 9-12). Deprived of its function as one of the directive principles of the human body, the brain is now just a necessary cold element to counterbalance the hotness of the heart, and its living qualities, as I shall show below. Thus, while arguing for the centrality of the heart in the cognitive processes of the animals, Aristotle is still trying to have it both ways to some extent, and assigns to the brain the regulatory function of cooling down the hot principle of the heart. This point is further strengthened in *De partibus animalium*, in which Aristotle discusses the qualitative interplay between heart and the brain, and the *archē* is reinstated to be located in the heart, given its hotness and its essential connection with the blood and the veins: "the heart is a part of the vessels and their origin [...] for its central part consists of a dense and hollow substance," always "full of blood, as though the vessels took thence their origin;" its cavities are such "to serve for

[53] For a thorough analysis of the emergence of an encephalo-centric physiological theory, see Paola Manuli-Mario Vegetti, *Cuore, sangue e cervello. Biologia e antropologia nel pensiero antico* (Pistoia: Petite plaisance, 2009), especially pp. 41-72, 163-210; Michael Frampton, *Embodiments of Will: Anatomical and Physiological Theories of Voluntary Animal Motion from Greek Antiquity to the Latin Middle Ages, 400 B.C.-A.D. 1300* (Saarbrücken: VDM Verlag, 2008). See also van der Eijk, *Medicine and Philosophy in Classical Antiquity* cit., pp. 119-35, with extensive bibliography. The issue is discussed in chapter 2 (*Minding the Brain*), especially pp. 102-57. Recently Paola Ureni, "Lo 'stupor mentis' a occhi aperti di Vanni Fucci (*If*. XXIV 97-118). Filigrane mediche e scritturali." *Dante. Rivista internazionale di studi su Dante Alighieri* 12 (2015), pp. 55-67, showed the importance of this physiological debate in the *fictio* of the *Commedia*.

the reception of the blood," whose retention "may serve to protect the source of heat" (*De part. an*. III 4; 665 b 33-666 a 3). Interconnected with the qualities of the blood, the heart is responsible for the living functions of the animal, its sensory abilities, and its locomotive soul.

1.5 *Ut animalium pictura*: Sensation and Memory

The analogy between the process of sense-perception and the shaping of the impression of a signet-ring in wax is dependent on the physiological description that I have just delineated. As individuated by Mingucci,[54] Aristotle uses the image of the wax in pivotal moments of his biological and psychological opus to describe the mechanics of sense-perception and memory storage. In the pages that follow I will contextualize them according to their reception by the poets of the *Scuola siciliana*.

1.5.1 The Physician

In *De anima* II 12, Aristotle describes the affection of the sensors by means of the movement exercised by the external object as the figure of a signet-ring in malleable wax. This is related to the potentiality inherent to the matter of wax, and its malleability, for the substance can sustain the molding of the shape as far as its depth goes. Aristotle's analogy then puts on the same level the potency of the sensors, always ready to be actualized by the impression of some external sensory object – thus, an "instrumental" body keen on serving the functions of the soul and vice versa –, with the capacity of the matter, since the nature of wax is "made-for-its-impression." The perfect equilibrium represented by the matter of wax is analogous to that of the

[54] Mingucci, "La cera di Aristotele" cit., where the author investigates also the importance of the wax in the history of technics and philosophy before the work of the Stagirite.

different media involved in sense-perception: "if an object is dipped into wax," Aristotle says, "the movement goes on until submersion has taken place, and in stone it goes no distance at all, while in water the disturbance goes far beyond the object dipped" (*De an*. III 12; 435 a 2-3).[55]

Aristotle goes on to say that different elements are appropriately distributed in accordance to their function in the process of perceiving. For instance, in the case of sight, insomuch as the air is affected by the different qualities of the object seen, the eyes receive these qualities if the medium (i.e. air) is continuous and uninterrupted to the furthest point in them, "just as if the impression on the wax were transmitted as far as the wax extends" (*De an*. III 12; 435 a 9-10).

The analogy between physiological processes of cognition and the seal in wax is used once again by Aristotle in the treatise on memory and recollection. Memory is defined as "knowledge or perception apart from the objects," since in the memorative faculty the sensitive impressions grasped and elaborated by sense-perception or thought are stored and recollected (*De mem. et rem*. 1; 449 b 19-20). Time is intrinsically tied to the memorative act, because memory is a faculty of the soul dealing with things once perceived, and hence it does not have to do with present or future time: as Aristotle explains, "only those animals which perceive time remember, and the organ whereby they perceive time is also that whereby they remember" (*De mem. et rem*. 1; 449 b 28-30). In his commentary and edition of the biological works of the philosopher, Diego Lanza refers to other passages (*De juv*. 3, 469 a 10-b 3; *De part. an*. II 10, 656 b 24-25; *De gen. an*. II 6, 743 b 24) in which Aristotle identifies the heart as the central

[55] On this point, Mingucci, "La cera di Aristotele" cit., pp. 91-94 refers also to *Meteor*. IV 9, 386 a 18-22: "Some things, e.g. copper and wax, are impressible, others, e.g. pottery and water, are not. The process of being impressed is the sinking of a part of the surface of a thing in response to pressure or a blow, in general to contact. Such bodies are either soft, like wax, where part of the surface is depressed while the rest remains, or hard, like copper."

sensorium and thus the organ common to the perception of time and memory.[56] But neither *De juventute* nor the analogous passages in *De partibus animalium* or *De generatione animalium* discuss how the perception of time takes place from a physiological standpoint.

In the books on *Physics*, having already summarized the definition of time as "number of motion in respect of the before and after" (*Phys*. IV 11; 219 b 1), Aristotle posits the problem of the existence of time outside a perceiving subject. If time is indeed "number," that is "what is counted or countable" (*Phys*. IV 11; 219 b 6), and then not an item by which a count is made, a counting subject is needed for time to exist as such. But since "if nothing but soul, or in soul reason, is qualified to count, it is impossible for there to be time unless there is soul," and consequently, if it is possible to posit the existence of a movement outside of a perceiving subject, then time would be the number of that type of movement, but just accidentally, and not substantially (*Phys*. II 11; 223 a 25-26). Therefore, time exists qua a soul is able to perceive it as movement in time.

To have a better understanding on how this issue is related to sense-perception, we must go back once again to *De sensu*, where Aristotle discusses how the infinite divisibility of space and time affects perception of them. In *De sensu* 7, it is argued that space and time, being the former a good linear representation of the latter, are perceived in a similar way. However, during the perception of a segment of space or a fragment of time – both being indefinitely divisible –, it is possible to posit the existence of a certain quantity that is not perceivable for its smallness. The totality of perception would not be affected, since the subject "perceives in a certain part or

[56] See Aristotele, *Opere biologiche*, eds. D. Lanza, M. Vegetti (Turin: UTET, 1971), p. 1123, 4n, with reference to the commentaries to the *Parva naturalia* edited by Jules Tricot (Paris: Vrin, 1951) and John Beare (Oxford: Clarendon Press, 1908). These passages have been analyzed in detail in the previous pages of this chapter as well.

perceives a part of the line, after the fashion in which one sees the whole earth by seeing some given part of it, or walks in a year by walking in some given part of the year" (*De sens*. 7; 448 b 7-9). But if in the remaining part the subject did not perceive anything, still it is possible to argue in favor of the perception of "the whole object and during the whole time simply because" some part of it is sensed (*De sens*. 7; 448 b 9-10). While it may be impossible to have a complete perception of the whole, "all magnitudes are perceptible, but their actual dimensions do not present themselves immediately" (*De sens*. 7; 448 b 12-13). Thus, there is no indivisible part so small not to be perceived as part of the perceivable whole, nor any "portion of time is imperceptible" (*De sens*. 7; 448 b 17).

Aristotle tackles this alleged collateral problem because he is trying to argue for the possibility of the perception of two (or more) simultaneous sensations. Simultaneity would posit the existence of two distinct quantities "in a time one and indivisible relatively to one another" (*De sens*. 7; 448 b 19-20). But if no portion of time is so small for the subject not to be able to perceive it, therefore simultaneous perception of different sensorial items is indeed possible, and features a faculty of the common sensorium capable of discerning multiple simultaneous sensorial data. As discussed in the previous pages, in order to have a whole understanding of the external object, it is necessary to posit the existence of one unitary principle of sensation, individuated by Aristotle in the common sensorium. Thus, "one can perceive numerically different objects simultaneously with a faculty which is numerically one and the same, but not the same in its account" (*De sens*. 7; 449 a 19-20). As I have showed above, this faculty exists in the heart of the animal for different reasons, whence it is possible to also conclude that the same

sensorial potency of the soul is both aware of the time and space, and is responsible for the discernment of sensitive data.[57]

After this survey account, I believe it will be clearer why Aristotle finds the heart to be the location for the sensitive faculties, designated for both sense-perception and the perception of time and memory. As argued in *De memoria et reminiscentia*, the mnemonic power works in a way similar to that of imagination (Gr. φαντασία). While stressing again the combination of memory with the common faculty of the "first sensor" (Gr. πρῶτον αἰσθητικόν) – a formulation that is analogous to that of common sensorium (Gr. κοινὴ αἴσθησις) in certain contexts –,[58] Aristotle intertwines the elaboration of images resulting from sense-perception with the creation of memorial data to be eventually stored: thus, considering that "memory [...] involves an image and the image is an affection of the common sense," it can be said that memory "belongs incidentally to the faculty of thought," but "essentially [...] to the primary faculty of sense-perception" (*De mem*. 1; 450 a 10-14). To remember is to have memory of perception, and for this reason the storing and possessing of sensorial images is instrumental for the eventual recollection of its parts. Aristotle's analogy with artistic and technical endeavors is in this respect of utmost interest: "we must conceive that which is generated through sense-perception in the

[57] For a complete account of all the Aristotelian references to the common sensorium – a term that I prefer over "common sense," which may lead to confusion, given the different meaning in English – see Pavel Gregoric, *Aristotle on the Common Sense* (Oxford-New York: Oxford University Press, 2007). Gregoric frames the uses of the term into a psycho-physiological account, with a description of the functions involved in the common sensorium as well. See also Stephen Everson, *Aristotle on Perception* (Oxford: Clarendon Press, 1997), especially pp. 56-102, 139-86, in which the author tries to contrast Burnyeat's spiritualist account on change and alteration.

[58] See Gregoric, *Aristotle on the Common Sense* cit., pp. 65-125, in which he analyzes the terminological nuances of the expression in Aristotle, and argues that, although employed with respect to sense-perception, it "has not yet crystallized into a technical term" (p. 125).

soul, and in the part of the body which is its seat, – viz. that affection the state whereof we call memory – to be some such thing as a picture" (*De mem*. 1; 450 a 29-30).

This passage is the most interesting one for our discussion with respect to the reception of Aristotelian psycho-physiological concepts in the Sicilian school, especially thanks to the evident semantic influence and intertextuality that the lexical choices operated on the poets of the Staufen court.

In the course of the creation of sense-images through perception, this "picture of some kind" (Gr. ζωγράφημά τι) is the thing that is stored in memory, as it was for the seal impressed in wax analogous to perceiving: as Aristotle explains, "the process of movement stamps in, as it were, a sort of impression of the percept, just as persons do who make an impression with a seal" (*De mem*. 1; 450 a 30-31). The picture evoked in the original text is not any reproduction, but it is the vivid recounting of life-like nature: the ζωγραφήματα are called such because semantically they are pictures inscribed (Gr. γράφω) in matter, but taken directly from life experience (Gr. ζωός or ζωή).

This particular acceptation is faithfully rendered by James of Venice[59] in his Latin translation as "image of some living being" (Lat. *animalium pictura*), thus stressing the distinct

[59] Quotation from the Latin translations of Aristotle are from the edited volumes of *Aristoteles Latinus*, under the care of the Union Académique Internationale (Bruges: Desclée de Brouwer, 1943-). The still ongoing project can be accessed online or through CD-Rom at the *Aristoteles Latinus Database* (ALD), a collaborative project between the Union Académique, the *Aristoteles Latinus* Centre, and the Centre "Traditio Litterarum Occidentalium."

qualification that this image must have had for his Medieval readers.[60] Once again, the parallel between what happens in sensation and what is engraved in the faculty of memory goes back to the old image of the signet-ring in wax. It is worthwhile to quote again the passage to show exactly how James translated it: "the process of movement stamps in, as it were, a sort of impression of the percept, just as persons do who make an impression with a seal [Gr. καθάπερ οἱ σφραγιζόμενοι τοῖς δακτυλίοις]" (*De mem*. 1; 450 a 30-31). The parallel with the artists (or notaries?) who sign with rings in wax, which in Greek is rendered by a participle present middle-passive of the verb σφραγίζω, "to enclose, to authenticate (a document) with a seal," is once again faithfully rendered by James with another participle, "sicut sigillantes anulis."[61]

Aristotle also underlines the symbolic nature of memory in the ways these images affect the subject. Since what is impressed in memory is not the external object, nor the sense stimulus in itself (which both properly are not anymore, memory being the possession of a past perception), the mnemonic image stands for, as it were, what was once external and perceived.

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[60] The entire paragraph reads: "Manifestum enim est quoniam oportet intelligere huiusmodi aliquid fieri per sensum in anima, et in parte corporis habentis ipsam, ut animalium pictura, passio est cuius et habitum dicimus memoriam esse" ["it is in fact clear why we must think that which is produced through sensation in the soul, and in the part of the body that possesses it, (to be) some sort of a picture of a living being – an alteration whose state we call memory"]. My translations here and elsewhere.

[61] The rest of the sentence reads: "ut figura quedam vel motus sensibilis, sicut sigillantes anulis" ["as an image of some sort or a sensitive movement, as those who enclose (documents) with their signet-rings"]. James of Venice is well aware of the parallel loci in which Aristotle uses the image of the ring in wax, because of the consistent translations of those passages. With respect to the passage of *De anima* II 12 describing sense-perception as an engraving of an image without the matter of the object, James translates that it happens "ut cera anuli sine ferro et auro recipit signum" ["as wax receives the seal of the signet-ring without the iron or the gold"]. And in *De anima* III 12, while mentioning the appropriate materiality of wax as a parallel for the depth of the impression engraved by sensation, James renders "sicut si in cera signum ingrederetur usque in finem" ["as if a seal would penetrate in wax as deep as it is allowed to"].

As a painting on a wall stands both for the external reference (sign meaning something), and for the figure itself (sign *qua* sign), the double nature of the memory-image (Gr. μνημόνευμα) is "both something in itself and relative to something else" (*De mem*. 1; 450 b 25), of which the subject is aware in order to possess the memory of the thing.

As I have just discussed, the stamp left by the signet-ring in wax is inherently connected to the natural capacity of the element to be impressionable by means of a force inflicted to it. This natural potency however is perfectly balanced in wax on account of its own elemental nature (as explained in *Meteor*. IV 9; 386 a 20-22), but it is subject to different variables in the animals given their changing and individual qualitative balances. Hence, Aristotle warns his audience of the different effects to which memory could be exposed when this balance is not perfectly possessed: "in those who are strongly moved owing to passion, or time of life, no memory is formed; just as no impression would be formed if the movement of the seal were to impinge on running water" (*De mem*. 1; 450 b 1-3). Accidents like illness or other temporary affections may nullify the mnemonic process insomuch as they can affect the natural pliable quality of the matter. The "memorial sensor," so to speak, could be too forgiving or too rigid for the seal to be impressed, as can be seen with the youth and the elderly, or with the swift-minded or the slow-witted: as explained by Aristotle, "both very young and very old persons are defective in memory; they are in a state of flux, the former because of their growth, the latter, owing to their decay. Similarly, both those who are too quick and those who are too slow have bad memories. The former are too moist, the latter too hard, so that in the case of the former the image does not remain in the soul, while on the latter it is not imprinted at all" (*De mem*. 1; 450 b 6-10).

The somatic qualities of the mnemonic act are what concern Aristotle the most in this brief treatise – to which he devotes the final paragraphs of the work. While investigating the differences between the act of storing in memory, and the physiological process that leads to recollection, Aristotle concludes that the latter is a potency existing solely in human being, because it is "a mode of inference" (*De mem*. 2; 453 a 10): in being "a sort of investigation" (*De mem*. 2; 453 a 12), recollection is connected to the capacity of the subject to deliberate and make an informed decision. As Diego Lanza notes in his commentary, the Aristotelian notion of recollection is based on the reconstruction of the causality existing between memory and its cause, and it is thus based on the awareness of the symbolic nature of the mnemonic impression and the passivity that generated it.[62]

The cognitive process that is involved when something comes back to the mind of the subject is then the final part of a mental syllogism deliberately construed for this purpose. Nevertheless, in this treatise Aristotle stresses the bodily features of such a process, since "recollection is a searching for an image in a corporeal substrate" (*De mem*. 2; 453 a 15). When it is impossible to recollect a mnemonic image, the cause is individuated in the inability of maintaining control over the physiological processes of recollection. The series of stimuli undertaken by the subject in order to find the image stored in memory might be affected by the corporeal unbalances of the mnemonic organ, as for "those who have moisture around that part which is the centre of sense-perception," for this humidity, "once [it] has been set in motion it is not easily brought to rest, until the idea which was sought for has again presented itself, and thus the movement has found a straight course" (*De mem*. 2; 453 a 23-25). As for the act of impressing an image into memory, remembering is affected by the bodily variables of the

[62] See Aristotele, *Opere biologiche* cit., p. 1138, 30n.

malleability of its parts. If the sensorial region is in an unbalanced state, the impulse of recollection cannot hit the mark.

Aristotle does not need here to name explicitly the heart as the seat of the memorial faculty, firstly because it is already clear from other passages of his works (and this one makes no exception), secondly because the data that he is providing to his audience are not subject to divergent interpretations. When Aristotle states that "those whose upper parts are abnormally large, as is the case with dwarfs, have abnormally weak memory, as compared with their opposites, because of the great weight which they have resting upon the organ of perception" (*De mem*. 2; 453 a 31-453 b 2), he assumes his reader knows already that the organ of common perception is the heart, and that this interpretation is strengthened by the assumption that gravity affects the cardiac region more under certain physical situations.[63]

Van der Eijk questions this instability in the biological works of Aristotle, by arguing that "this has perhaps to do with his indebtedness to a medical tradition which supplied a lot of material which he could simply take for granted."[64] While this might be certainly true, given the importance of scientific investigation and historical assessment of previous scholarship in the field as testified by the Aristotelian corpus, we must also take into account that the entire opus of Aristotle works in some respect as a whole "system," even with its internal inconsistencies and problematics. Aristotle – or whoever recollected his philosophical work – perhaps did not feel the need to re-assess an entire physiological or psychological problem because it would have

[63] And see also the conclusive statements of *Juv*. 3, 469 a 10-14: "all sanguineous animals have the supreme organ of the sense-faculties in the heart, for it is here that we must look for the common sensorium belonging to all the sense-organs. These in two cases, taste and touch, can be clearly seen to extend to the heart, and hence the others also must lead to it."

[64] See van der Eijk, *Medicine and Philosophy in Classical Antiquity* cit., p. 230.

been clear already to his audience to what topic he was make reference. As in the case of the semantic precision discussed by Giovanna Giardina above, there are linguistic clues scattered throughout the corpus that make patent the thought process leading to such conclusions. Hence, it is impossible to agree with van der Eijk regarding a lack of commitment in the individuation of a "specific type of causal relationship" (the references brought by the author are *De motu an*. 7, 701 b 10-24; 10, 703 a 15; *De gen. an*. II 3, 736 b 30-35) in the bodily changes that accompany psychic activities,[65] since these cross-references are a testament to an investigation that aims at a coherent systematic project.

I believe that these passages, condensing a psycho-physiological discussion that, as I have showed, encompasses the treatise on the soul, the biological works, and the short treatises on physiology, were read and received with enthusiasm by Giacomo da Lentini and the other poets of the Sicilian court (via Giacomo or not), specifically in the creation and exploitation of the image of the lady engraved in the heart of the poet. We must not overlook the fact that these poets were almost all professional document-makers and signers: Giacomo's activity as notary of the Staufen chancery is well documented between the end of the second decade of the 13th

[65] See van der Eijk, *Medicine and Philosophy in Classical Antiquity* cit., p. 235: "Thus apart from saying that bodily changes 'correspond with' or 'accompany' psychic activities, which does not commit itself to a specific type of causal relationship, we may go further and say that bodily states and processes *act* on psychic powers or activities just as well as psychic powers may be said to 'inform' bodily structures." This instance of moderate hylomorphism, as I have argued in section three of this chapter (1.3 *Aristotle's Psycho-Physiological Project*), still conceptually distinguishes between bodily components and psychic activities.

century and the 1240s;[66] Ruggeri d'Amici was *giustiziere* and imperial captain; Guido delle Colonne was *iudex*, as attested in the manuscripts; Odo delle Colonne almost certainly was part of the chancery, and maybe from Guido's same family; Pier della Vigna needs no introduction with respect to his professional career in the Staufen court; Iacopo Mostacci was *dominus* and *miles* of the court; Frederick II himself was not extraneous to the legal activities of his court; Ruggerone da Palermo is probably notary and translator from Arabic to Latin; Giacomino Pugliese might be part of the same entourage as well; jongleur Ruggeri Apugliese was the son of a Sienese notary; Mazzeo di Ricco might well had a legal education; Percivalle Doria was a nobleman and imperial *podestà* in Asti, Arles, and Avignon; and Folco di Calavra signed Frederick II's will.[67] They were thus particularly familiar with the ordinary and material practices of signet-rings and wax seals. Indeed, the analogy individuated by Aristotle is for the Sicilian poets not a mere image of philosophical literature, but an actual frame of reference in their everyday life.

1.5.2 The Poets

Let us now return to the poetry of Giacomo da Lentini, and see how the Aristotelian ideas discussed above work in poetry. I will first discuss the presence of these Aristotelian references

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[66] See Antonelli's introduction in *Giacomo da Lentini*, pp. xxxvi-xl. For other documentation of Giacomo's life and professional activity, see Laura Sciascia, "Lentini e i Lentini dai Normanni al Vespro," in *La poesia di Giacomo da Lentini. Scienza e filosofia nel XIII secolo in Sicilia e nel Mediterraneo occidentale* (Palermo: Centro di studi filologici e linguistici siciliani, 2000), pp. 18-31; Ernest F. Langley, *The Poetry of Giacomo da Lentino, Sicilian Poet of the Thirteenth Century* (Cambridge, Mass.: Harvard University Press, 1915), pp. xv-xix, 131-35.

[67] Of the other poets of the court, all the biographical information is found in the *cappelli introduttivi* to the individual poets in Di Girolamo's edition of *Poeti della corte di Federico II* cit.

in the programmatic canzonetta *Meravigliosa·mente* [1.2], briefly analyzed in the beginning section of this chapter. The incipit takes up the entire first settenario with an adverb of wonder, setting the stage as unique and tantalizing. The experience of love and its emergence is at the core of the entire poem, but in this case the focus is on the physiological pattern of the mnemonic act involved in love-passion. The tension is all in the contrast between the first and the second half of the canzonetta, and the shift is in the middle of the fourth stanza (v. 34). While in the beginning, the poet celebrates how the image of the lady is created and active in the secret parts of his soul, thus verbalizing the successful movement from the outside to the inside,[68] via the senses, the second half is about the unattainable manifestation to the exterior of what is happening in the inside of the subject.

As already noted above, the poet compares himself to an artist who draws a figure from life,

> com'omo che ten mente
> in alto exemplo pinge
> la simile pintura.
>
> [As the one who paints similarly to the model looks attentively to that external reference, vv. 4-6]

The poet carries the image of the lady ("la tua figura," v. 9) in his heart ("'nfra lo core meo," v. 8), as a portrait taken from life. The relationship between the image inscribed in the heart and the external model is immediately one of mimesis, and the lexical choices used here and echoed elsewhere are all pointing towards the clarification of this similarity: the model ("exemplo," v. 5) gives way to a painting that is similar ("simile," v. 6) to it, and what is carried

[68] On the allocutive orientation of Giacomo's poetry, and the dichotomy between interior and exterior that semantizes the heart as the former, see Raffaele Pinto, "La parola del cuore," in *La poesia di Giacomo da Lentini* cit., pp. 169-92.

in the heart is a faithful reproduction of what appears in reality, "painted as you appear" ("pinta como parete," v. 11).[69] As I have discussed above, Aristotle compares the physiological process that generates an image to be stored in the cardiac memory to the artistic endeavor of a painter who reproduces from life: the *animalium pictura*, which translates the product of "one who paints from life or from nature" (Gr. ζώγραφος).

The image is not limited to the lines analyzed above. This process originates from the desire of the lady (v. 19): the image is a necessary reproduction that can be stored in the memory of the poet and recollected at any time. The poet is mesmerized by this memory continuously, as explained in vv. 2-3: "un amor mi distringe / e soven ad ogn'ora" ("a love clings to me, and I am always in the process of remembering it"). Because of this intense yearning, the poet paints "an image that resembles you" ("una pintura, / [...] voi simigliante," vv. 20-21), and the similarity is so striking that the image stands for the lady herself:

> e quanto voi non vio
> guardo 'n quella figura
> e par ch'eo v'aggia avante.
>
> [And when I am not in your presence, I gaze at that image, and it is like having you right in front of me, vv. 22-24]

The accurate internal representation of what is grasped by the senses is kept in the internal chambers of memory, and the active meaning of this image is like that of a sacred relic. The devotion for the image painted in the heart bolsters the love of the poet, as much as the holy

[69] I agree with Antonelli in his commentary *ad locum* when he corrects Agamben on the meaning of this *parete* to be taken as a second person plural of the verb *parere*, "to appear, to manifest oneself," and not "wall, fresco." Giorgio Agamben adopts his idiosyncratic reading in *Stanze. La parola e il fantasma nella cultura occidentale* (Turin: Einaudi, 1977), a much-quoted essay on psychological representation and its relationship with love-passion that is however not very informed on the facts of Medieval philosophy and its reception.

image of a saint, or one of their limbs, enhances the faith of the believer. The analogy between poet and artist is now deflected towards a parallel between lover and zealot: both cannot access the material evidence of their beloved object, thus they both need some sort of correlative to gaze and worship in order for them to survive in their cult.

This overlap between lay, philosophical culture, and high theological creed is one device that will extensively exploited by Giacomo in the course of his poems (with a pinnacle in the sonnet *Io m'aggio posto in core a Dio servire* [1.27]). Hence, as the poet creates an image in his heart, so does "om che si crede / salvare per sua fede" ("one who believes can be saved thanks to his faith," vv. 25-26). This second analogy is particularly worth mentioning for the conflation between sacred and profane that connects different poems together: here in *Meravigliosa·mente* the poet is an alter Paul, for whom faith is "sperandorum substantia rerum, argumentum non parentum" ("substance of the things which must be hoped, and proof for those which are not evident," *Heb* 11:1),[70] and the image in the heart can be taken as a legitimate holy relic to which hope and yearning can be addressed. Elsewhere in *Amando lungiamente* [1.12], the poet would be satisfied even with "alcun bon motto" ("even a single word," v. 31) to do his lady justice for the love he feels, as the Christian liturgy of communion echoes the parallel passage in *Luke* 7:6-7: "non enim dignum sum ut sub tectum meum intres [...] sed dic verbo et sanabitur puer meus" ("I am not worthy enough for you to enter under my roof, but just say a word and my child will be healed"). Should this not be the case, and the poet would be cast away from his lady's protection, he would be in the same despair as he who lacks God's protection celebrated in *Ps*. 24 (vv. 57-70). This thread can be detected also in the series of three "paradisiac" sonnets of *Io*

[70] Quotations of the Latin Vulgate are from *Biblia Sacra Vulgata, Editio quinta* (Stuttgart: German Bible Society, 2007). Translations are mine here and elsewhere.

m'aggio posto in core, *Lo viso mi fa andare allegramente* [1.28], and *Eo viso e son diviso da lo viso* [1.29], which demonstrate Giacomo's natural penchant for a generic syncretism that will characterize Italian literature of the 13th and 14th centuries with a blend of holy scriptures and philosophical authorities.[71]

The quasi-programmatic manner of *Madonna, dir vo voglio* [1.1] makes evident some of the most important themes in Giacomo's poetry. The physiological process of memory is framed within an Aristotelian reference that renders this poem fundamental for showing the different sources employed by Giacomo in his tropes.

The incipit declares immediately the reasons for such a song: the poet wants to narrate the genesis of his love to his lady "despite her immense pride" ("inver' lo grande orgoglio," v. 3). The heart is unsurprisingly at the center of the process narrated in this canzone, referenced already in the first stanza with a pathetic vocative that shifts the attention of the reader from the other main actor of the scene, the lady. For the first four lines, the dynamic has been established between the I of the poet, and the You of the lady, connected via the one-way sentiment that gave birth to the poem. "My heart" – "lo meo core" (v. 5) – overwhelmingly captures the scene for the rest of the stanza (and of the poem, truth be told), and the centrality of the poet's vital and cognitive faculties permits the interchange between the organ and the lyric subject.

While in the opening lines the pride of the lady seems to be directed to the poet and his pressing urge to tell his feelings, the last lines of the first stanza show how the disdain is actually directed towards the heart, who is the real agent of this entire scene:

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[71] On this trend in Giacomo's poetry, see also Rossend Arqués-Raffaele Pinto, "La invenció del sonet i la cultura a la Sicilia de Frederic II." *L'Avenç* 195 (1995), pp. 42-45. The authors argue that Giacomo's definition of love as expressed in the tenzone with Jacopo Mostacci and Pier della Vigna (on which see below) is a parody of *Luke* 6:45.

... lo core meo
more più spesso e forte [...]
per voi, donna, cui ama,
più che se stesso brama
e voi pur lo sdegnate.

[My heart dies more often and more harshly for you, my lady, whom it loves, and yearns for more than itself; but you reject it nonetheless, vv. 10-15]

The relationship established in this canzone between the bodily heart and the self of the poet is a running theme for Giacomo, and one exploited in many ways in the course of his poetry. Most of the cognitive powers of the subject are centered in the heart, to the point that, although impossible to express in language, his love cannot be thought by the heart in a way that renders justice to the quality of the sentiment: "sì com'eo lo sento / cor no lo penseria né diria lingua" ["Nor the heart, nor the tongue can express exactly what I feel," vv. 19-20]. The seat of the mental faculties that allow the poet to express his feelings are compressed in the heart, where the main scenario is set already. The heart is responsible for the depth of this love impossible to re-tell, because "zo ch'eo dico è nente / inver' ch'eo son distretto" ["what I said is nothing, compared to what takes hold of me," vv. 21-22], and it is semantically interchangeable – "tanto coralemente" ["so heartedly/deeply," v. 23] – with the most secret and internal parts of the subject. In the heart, the natural adynaton of an inextinguishable fire finds its source in the unrequited love for the lady – "foc'aio al cor non credo mai si stingua, / anzi pur s'alluma / ... / vivo 'n foco amoroso" ["The fire that I have in my heart won't be extinguished, on the contrary, it will be more and more persistent, and I live in a fire of love," vv. 24-30] –, as the salamander that is accustomed to dwell in the blaze.

The third stanza restates the impossibility to express "la propria cosa" ["the exact *quid*," v. 36] that the subject feels about love. As shown in the previous lines of the poem, this definitional issue is related to the faculties of the heart: what is felt, is felt by means of the heart,

and what is thought, is thought by it as well. Thus, since "lo cor mi fa sentire" ["the heart makes me feel it," v. 38], the poet testifies to his incapacity to represent in words what is real in his heart, comparing himself to a man who itches who cannot remove the itch (vv. 37-40). The investigation of an appropriate referent for what is felt is the issue at stake in this canzone, and one to no avail: since "lo non-poter mi turba" ["my 'inability' bothers me," v. 41], the poet is analogous to the painter who, like a new Penelope, "pinge e sturba" ["paints and destroys," v. 42]. The nonsensical search for a verbal correlative is parallel to the idle project of the artist who paints and destroys his endeavor, frustrated by the distance between what is created and what is in reality:

> ... e sé riprende,
> che non fa per natura
> la propïa pintura.
>
> [And he scolds himself, because he cannot reproduce reality in his painting, vv. 44-46]

This attempted artistic reproduction makes the poet aware of the distance between creation and reality. Being the only representation that he can afford, he should not be blamed for his failure, for he is like the sailor who holds onto the scattered pieces of his ship when he is drowning at sea (vv. 47-48). The contrast between a successful and failed "pintura per natura" is a thread that links these lines to the coordinated passages of *Meravigliosa·mente* and *Madonna a voi vi mando*; this trope shows the closest lexical intake from the Aristotelian source analyzed above. To recapitulate: the *animalium pictura*, or again "pintura per natura," is the best representation possible of the external reality, and yet it is just a mere impression of a sensation that is always already limited by the potency of our senses. Giacomo frames this issue as the love distress of a lover who cannot think about his lady in an appropriate fashion.

In its overwhelming position at the center of the subject, both physically and mentally, the heart's desire creates a tangible weight on its very self that might almost crush it. The poet must address sighs and tears to his lady, in order to ease the physiological tension on his chest, which is about to collapse:

> che s'eo no li gittasse
> parria che soffondasse,
> e bene soffondara,
> lo cor tanto gravar in suo disio.
>
> [Because should I not throw my sighs away, it would feel like suffocating, and rightfully the heart would thus suffocate in its desire, vv. 57-60]

The material substance of the heart is featured again at the end of the canzone, where the poet wishes for its organ "made flesh" ("come 'ncarnato tutto," v. 75)[72] to come out of his body and stand silently in front of the lady: "vorrei ch'or avenisse / che lo meo core 'scisse / ... / e non facesse motto a voi, sdegnosa" ["I would like to see my heart come out of my chest, and stand silently in front of you, my disdainful lady," vv. 73-76]. The absence of dialogue and the eerie representation of linguistic impotency are the visual referent of all the lexical instances of *core* of this canzone. The heart truly stands for the bleeding subject in distress, and its silence is the aporetic ineffability sought in the poem, as much as the heart is not able to carry through with the sentiment for the lady in utterable words.

Proceeding through the works of Giacomo da Lentini, we see once again a thread that links the poems analyzed so far to the canzonetta *Madonna mia, a voi mando* [1.13]. This thread

[72] Brugnolo analyzes the Biblical intertext of John 1:14 ("et verbum caro factum est") in the image of the embodied heart. See Furio Brugnolo, "'Accessus' ai Siciliani. «Madonna, dir vo voglio»." *Siculorum Gymnasium* 53 (2000), pp. 113-33, especially p. 119.

is the search for the unattainable, most distant desire which is the trademark of Giacomo's poetry, as Antonelli puts it in his introduction.[73]

The tension developed in the canzonetta relies on a shift between past and present: between on the one hand the past time of memory, when love first was born and experienced, when the image of the lady was first created in the heart and when great joy was given to the poet to remember, and on the other hand the present time of singing, which indulges in the plethora of his "sospiri" ["sighs," v. 2] as a means to recollect the mnemonic image of his lady. Then, in the past, the poet "era [...] amante / e lealmente amava" ["I was you lover, and I loved faithfully," vv. 5-6], but in a despairing silence burdened with fear. The voicing of his passion was impossible ("non vi porea mai dire," v. 4), for the angst hindered him from manifesting visible signs of his love ("però ch'eo dottava / non vo facea sembrante," vv. 7-8). But this sweetly recollected memory is the source of his present poetry-making, and it is fed by the hope of instilling some love in his lady. Hence, the hearts would communicate to each other, since the poet begs Love to pierce into his lady's heart with his song: "eo prego l'Amore / ... / li mei sospiri e pianti / vo pungano lo core," ["I beg Love so that my sighs and crying may pierce into your heart," vv. 13-16]. The very song surging from the heart's memory is represented in the sixth stanza:

> In gran dilettanz'era
> madonna, in quello giorno
> quando ti formai in cera
> le bellezze d'intorno.

[73] Antonelli stresses the internal proximity of the poetic, absent object, as phrased in *Madonna mia, a voi mando*, *Meravigliosa·mente*, and *S'io doglio non è maraviglia*, where "quell'essere 'lontano' eppure interiormente vicino [...] costituisce la cifra forse più significativa della ricerca lentiniana." See *Giacomo da Lentini* cit, p. 285.

[I was in great joy, my lady, on that day when I shaped all of your beauties into the wax, vv. 41-44]

I have already argued for the meaning of line 43 as "to shape a form into wax," both for metrical reasons that justify this reading, and for the Aristotelian context alluded to in this trope.[74] Giacomo is longing for a connection between hearts, the subjective correlatives and the alternative I of his poetry (as in the direct speech of *Dal cor mi vene* [1.5], vv. 56-63), for his heart is the bodily organ charged with the sensorial image of the lady. That image is formed "in cera," as the signet-ring in wax of the Aristotelian analogy, in an effort to materially and philosophically describe a perceptive and memorial process resting on a scientific foundation.

The heart is the topic source of love also in the opening verses of *La 'namoranza disiosa* [1.6], which is an interesting instance of Aristotelian psychology in the wake of the parallel passages of *Madonna, dir vo voglio*, *Meravigliosa·mente*, and *Madonna mia, a voi mando*. This love passion took its origin in the heart of the subject, who affirms how "dentro a lo mi' cor è nata" ["it was born inside my heart," v. 2]. The fourth stanza shows the scientific rigor with which Giacomo analyzes the process of image-formation "without the matter," as I have shown in the previous sections of this chapter. Once the lady, so "meravigliosa" ["marvelous," v. 25], has been stored in the memory of the poet through the perfection of her sense-image – "quand'i' v'ò ben affigurata," ["when I created an image of you," v. 26] (a verse that should be related to *Meravigliosa·mente*, v. 9), she no longer appears as the external, material object. Instead she is now an internal figuration that stands for the object, "other" than what she appears in reality: "ch'altro parete che 'ncarnata" (v. 27). Hence, Giacomo is representing in his heart a *signum* of

[74] See the pages dedicated to a tentative reading of the poem in the second section of this chapter (1.2 *De-Gallicizing Giacomo's* cera).

his lady, in which the dis-incarnate features of the lady make her an imagined composite in memory, destitute of bodily components as sense-perception process requires.

This Aristotelian physiological thread can be detected also in other poets of the Staufen court, who make explicit reference to Giacomo via intertextuality, or who shift the original trope in original ways.

In Pier della Vigna's *Amor, da cui move tutora e vene* [10.3], the positive outcome of love passion is described with images expanded from models taken from Giacomo. In the peace of a finally conquered love, the heart "tenesi contento" ["rejoices in its satisfaction," v. 49], but this state of being is inconceivable for the heart itself, least of all for the tongue to utter. Since "non si poria pensare per core / com'à tutte bellezze a compimento" ["it would not be possible to think through the heart how she has the ultimate beauty," vv. 55-56], the poet resolves to keep an ineffable silence, because "lingua non pò avere in parlamento / di dire più che 'l core sia pensatore" ["the tongue cannot express more of what the heart is thinking," vv. 59-60]. Piero is referring to Giacomo's specific trope of the "thinking heart," an image that shows the predilection for an Aristotelian reading that conceives the heart not just as the repository of the sensitive pleasure of love, but also the failed origin of thinking and speaking, because the object thought is unattainable in its perfection.

In the same fashion, Piero's *Amando con fin core e con speranza* [10.5], a *planh* perhaps dedicated to Isabella of England, Henry III's sister and late wife of the Emperor Frederick II,[75] takes off with tropes on the phenomenology of memory that are familiar already to the reader of Giacomo. The joy of love already preserved in the heart is something from which the poet never

[75] Gabriella Macciocca's commentary on this poem accounts for the lexical and semantic convergences between the *planh* and the epistle written by Piero on occassion of Isabella's death in 1241. See *Poeti della corte di Federico II* cit., pp. 311-22.

departs – “da la cui rimembranza / lo meo coraggio non diparto mai” [“from the memory of which I never move my heart,” vv. 5-6] –, since the image of the lady is so profoundly inscribed in his heart (“sì m’èste sua figura al core impressa,” v. 9) that not even corporal death, and thus the cessation of a material, external existence, can cause it to deteriorate. The lady is still living in the cardiac memory of the poet, in a figurative modality not distant from the analogous tropes used by Giacomino Pugliese in his *planh Morte, perché m’hai fatta sì gran guerra* [17.1], and the memory of this love is so strong that it seizes the poet in an everlasting passion even after the death of the beloved:

> Donque vivendo eo
> vegio del danno meo
> servendo Amor, cui la morte fa guerra,
> e a lui serviraggio
> mentre ch’eo viveraggio:
> in suo domin remembranza mi serra.
>
> [So while I live, I see my harm in being at Love’s service, to whom Death is at war, and I’ll be serving him while I live: memory keeps me in his dominion, vv. 43-48]

But this love-service that lasts beyond the death of the lady is left in an insurmountable aporia, because if the lady is not there anymore, and she is left in a mnemonic image preserved in the heart of the poet, her tangible beauties can be recollected only in cognition, and no longer through the present tense of sense-perception. Love is thus, eventually, destined to die of un-consumption, and cannot survive just in the past tense of memory: “tutte bellezz’e assise, / senza le quale Amore in me non regna” [“all of her beauties, without which Love cannot reign in me,” vv. 59-60].

A further instance of intertextuality with respect to the image formed into the heart of the poet is in Iacopo Mostacci’s *A pena pare ch’io saccia cantare* [13.3], where we can see a persistence of a scientific lexicon in the phenomenology of love and sense-perception. The desire

narrated by the poet, which occupies his entire faculties, is processed through the heart into an image, and stored in its cavities: "un disïo mi tene occupato / ... / che dentr'al core sta sì ymaginato, / ch'altro non penso né mi par vedere" ["a desire keeps me occupied... it resides so formed in an image in my heart, that I cannot think of anything else, or see," vv. 31-36]. Quite rare in the Italian lyric lexicon of the time, "ymaginato" (v. 35) refers to the philosophical process of formation through sense-perception and the residual impressions of the images. As for example discussed in the anonymous translation of *De insomniis* (especially in chapter 3), the memory of sensation can still produce an effect on the sensitive power of the soul as if it were present. That is particularly evident when the subject is asleep, because he then cannot distinguish between actual sensation and residual sensation, so that his judgment is obfuscated.[76] The translator rendered the entire process of formation of an image in sense-perception and the material possession of it as *ymaginatio*. Iacopo's "disio" is thus a persistent sensorial image that clouded his senses through the cavities of his heart and annihilates his judgment to the point that his obsession prevents him from even seeing other things.

The Aristotelian trope of the image formed into wax is thus eventually connected to a physiological discussion of mnemonic powers, again highlighting the tight connection between the philosophical texts and the poets of the Sicilian court.

The tenzone between three members of the Sicilian school – namely, Iacopo Mostacci, Pier della Vigna, and Giacomo da Lentini himself – tries to scholastically determine the nature of love and its human manifestations, in a poetical exchange that delves deeply into the issues at

[76] The process of residual memory that resurfaces in dreams as described by Aristotle will be discussed at length in the final pages of this chapter (see 1.6 *Bloody Transmissions*), with exact references to the poets that take on this trope and elaborate it in their images. This brief remark here is only to show the scientific precision of Iacopo's lexical intake.

stake in this chapter. As the conclusive part of the tenzone, Giacomo's sonnet shows the Scholastic *determinatio* sought by Iacopo in his original question of *Solicitando un poco meo savere* [1.19a]. This theoretical tenzone, and especially Giacomo's final solution to the problem, shows how deeply the heart is physically understood as the central sensorium of the sensitive soul, and how its phenomenology is tied with an Aristotelian physiological understanding of perception.

Iacopo's first doubts were about the definition of the nature of love,[77] and its effects on the will, since, although love "no parse ni pare" ["never showed nor shows itself in a physical manifestation," v. 8], its powerful consequences on human beings are indeed evident: as a matter of fact, "amor à potere / e li coraggi distringe ad amare" [Love has power, and forces the hearts to love," vv. 5-6]. Iacopo's reticence in granting such immense powers to the hearts of humans is justified by the fact that Love is not materially apparent,[78] and thus he resolves to limit Love's origins to "a passion that seems to be originating from pleasure" ["amorositate / la quale par che nasca di piacere," vv. 9-10].

Pier della Vigna's *Però ch'Amore no si pò vedere* [1.19b] tries to give a solution to the philosophical aporia individuated by Iacopo – Love does not appear "visibilemente" ["visibly,"

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[77] See also how the same question is framed by the main character of Tommaso di Sasso's *D'amoroso paese* [3.2], whose search for a definition of love burdens the lovesick with its pressing urgency: "son divenuto paccio troppo amando / e moro considerando / che sia l'Amore, che tanto m'allaccia: / non trovo chi lo saccia..." ["I became insane loving too much, and now I'm dying considering what Love is, this thing that ties me so much: I cannot find anybody able to answer me," vv. 15-18].

[78] A problem of which also Stefano Protonotaro is aware in his *Assai mi placeria* [11.2], since he can see Love's effect, but not its tangible substance: "Amor sempre mi vede / ed àmi in suo podire, / m'eo non posso vedire / sua propïa figura" [Love watches constantly over me, and has me under its power, but I cannot see its own figure," vv. 14-17].

v. 8], thus many believe it be "nïente" ["nothing," v. 4] –, by creating an analogy between the effects of Love on humans and the power of the magnet on iron (vv. 9-14).[79] But the final argument is left to Giacomo to determine.

Giacomo agrees with Iacopo's first assumption that links the origin of love to the overflowing of pleasure – "per abondanza di gran piacimento" ["because of an excessive pleasure," v. 2] –, but he moves to introduce also the connection between sensorial perception and the faculties of the heart. Since "li occhi rapresentan a lo core / d'onni cosa che veden bono e rio, / com'è formata naturalemente" ["the eyes communicate to the heart everything that they see, good or bad, in the way they are formed according to the laws of nature," vv. 9-11], the heart is thus considered the ultimate end-point of sense-perception, consistent with an Aristotelian understanding of sensitive faculties. The natural formation of the sense-images starts from the impression of the sensors (in this particular case of love, the eyes, but Giacomo is open to other senses too, as described in vv. 5-6), that communicate ("rapresentan," v. 9) an almost crude representation of the external object ("d'onni cosa che veden," v. 10) to the heart, in a first stage of discernment that as yet pays no attention to moral distinctions.[80]

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[79] On the magnetism in the Italian lyric tradition of the Middle Ages, see the dissertation of Akash Kumar, *Sì come dice lo Filosofo: Translating Philosophy in the Early Italian Lyric* (Columbia University, 2013), pp. 51-94, and here 2.5 *Avicenna's* forma specifica *and Guinizzelli's* cor gentil, pp. 179-99.

[80] See Bruno Nardi, "Filosofia dell'amore nei rimatori italiani del Duecento e in Dante," in *Dante e la cultura medievale*, ed. P. Mazzantini (Rome: Laterza, 1983), pp. 1-92, especially pp. 1-13. The heart is individuated as the first stage in the process of discernment also in Giacomo's sonnet *Molti amadori la lor malatia* [1.23]: "chi non à consiglio da suo core, / non vive infra la gente como deve" ["the one who does not have judgment coming from his heart, does not live among people as they should," vv. 10-11].

The heart is always considered the central knot of all sensations and the common place through which imagination and cognition can take place. Giacomo underlines this sensitive faculty of the heart with a constellation of words like "nutricamento" ["nutriment," v. 4] and "concepitore" ["conceiver," v. 12], words that stress the importance of the heart not just as a mere collector of sense-images but as the active physiological medium by which thinking and perceiving can take place. Coherent with Aristotle's explanation of the powers of the sensitive soul, the heart conceives "amorositate" – antecedent of the demonstrative "zo" in v. 2 – via the sense-images nestled and engraved in its malleable matter and provides sustenance to this love with the memory of the original perception – "li occhi imprima generan l'amore" ["at first the eyes generate love," v. 3]. This perception is still active on the lover by means of recollection, since "lo core li dà poi nutricamento" ["the heart eventually nurtures it," v. 4].[81]

The process described by Giacomo becomes a standard also for other poets of the court. Arrigo Testa's *Vostra orgogliosa cera* [8.1], for instance, is in perfect agreement with Giacomo's

[81] Giacomo's tenzone is not the sole instance of theoretical definition on the nature of love. While showing inter-textual reference to both Giacomo and other poets of the court, the anonymous canzone *Con gran disio pensando lungamente* [25.26] takes its lead from the logical determination of "Amor che cosa sia" ["what Love is," v. 2], but it goes on tackling also the more accidental features regarding the place where it is originated ["donde," v. 3], and how it comes to be ["come prende movimento," v. 3]. The origin is stated to be in the "verace piacimento" ["honest pleasure," v.12], that brings "pensieri" ["thoughts," v. 16] to the heart. Here the sensorial images coming from the eyes are contemplated and nurtured ["fiorisce e mena frutto," v. 19] by desire.

On the same trend, also another anonymous, philosophical sonnet like *Non truovo chi mi dica* [25.27] engages with the definition of Love ["chi sia," v. 1], its place in the subject ["ove dimori," v. 2], its causal origin ["di che cosa è nato," v. 2], and the logical argument behind its *nominatio* ["perché la gente il chiama per segnore," v. 3]. Assertively affirming that nobody understood this subject before, the poet then states that three are the reasons by which the heart is held captive, i.e. "piacere e pensare e disïanza" ["pleasure and thinking and desire," v. 12], and from these three causes Love takes its source.

phenomenology of love as described in his theoretical sonnet, *Amor è uno disio che ven da core*. As developed in the second stanza of Arrigo Testa's canzone, love derives from "fin piacimento" ["honest pleasure," v. 25], which comes from the sight of the beloved ["vista," v. 27]. The images collected by the senses are nurtured and expanded by the faculties of the heart ["in cor lo nudrisce, / sì che dentro s'acresce," vv. 28-29]. The visual impression that is collected and fed by the sensitive and mnemonic powers of the heart gives origin to a full-fledged, cognitive form, in the exact lexicon of natural philosophy: the image is collected in the cardiac region, "shaping the form of its quality" ["formando sua manera," v. 30]. This process is ultimately responsible, in a climactic moment that affirms the natural necessity of the passion, for the passion's external manifestation. The subject cannot but comply: as rays of light from a luminous source, Love "poi mette fuor sua spera, / e·ffanne mostramento" ["eventually manifests its light, and make it patent to the outside," vv. 31-32].

A similar process of the phenomenology of love is in other sonnets of Giacomo, as in *Sì come il sol che manda la sua spera* [1.21], where the arrows of love piercing the lover through his eyes are compared to the rays of light piercing the eyes and reaching the internal collector of sense-images. The sunlight "passa gli ochi e va da l'altra parte" ["passes through the eyes and reaches the other side," v. 4], thus stressing the transparent quality of the sense organ apt to receive the sensorial impression of light. In the same fashion, Love passes through the eyes and reaches the heart to destroy it: "passa per gli occhi e lo core diparte" ["passes through the eyes and breaks the heart in two," v. 8]. The analogies created in the natural images used in the first quatrain of the sonnet are thus mirrored in the second quatrain: as the sunlight goes through the diaphanous object, and as the image in the mirror is reflected in the retina of the eyes, so Love pierces through the eyes (which work just like the diaphanous object or the mirror) and reaches

the heart of the lover, who does not expect such a blow ["in tal loco che l'omo non spera," v. 7]. The heart is thus the collector of Love's attack just as a sensor is the medium through which sensation can take place, and the analogy is well framed in an Aristotelian physiological system which locates the common sensorium in the heart of the animal.

Although Manuela Allegretto, in analyzing the anonymous canzone *Come per dilettanza* [49.21], argues that the trope of the mirror used to described the faculty of sight is a clear reference to Avicenna,[82] I would argue rather for Aristotle. Given the entire web of natural images used and the frame that highlights the importance of the diaphanous element in sensorial perception, I believe the direct reference is the analysis of vision given by Aristotle in *De anima* II 7 and III 7, where almost all the elements present in the first quatrain of the sonnet (light, diaphanous object, retina, medium of the eye) are used by the Stagirite to explain the mechanics of sight.

Guido delle Colonne is also a very important poet in this development, in particular with respect to the physiological unbalances of the heart as a possible variable in the formation of sense and mnemonic images. It is not difficult to image Guido as one of the most scientific poets of the Sicilian court, especially thanks to the physiological explanation of love and sense perception that he gives in the canzone *Amor, che lungiamente m'ài menato* [4.4]. As is declared in the last stanza of the canzone, Love is responsible for the foolhardiness of those who were once so wise ["Amor fa disviar li più saggi," v. 53], and for the unethical disequilibrium that is a consequence of this passion: "chi più ama men à in sé misura, / più folle è quello che più s'innamora" ["the more one loves, the less one possesses measure, and the one who loves the

[82] Manuela Allegretto, "Figura amoris." *Cultura neolatina* 40 (1980), pp. 231-42, especially pp. 237-38.

most is more folly," vv. 54-55]. The perception of something deemed pleasurable is at the core of this process – "Amor non cura di far suo' dannaggi" ["Love is not bothered by the possibility of giving distress," v. 56] – for it changes the natural quality of the hearts in such an unbalanced heat that there is nothing cold enough to temper it: "a li coraggi mette tal calura, / che non pò rafredare per fredura" ["it heats up the hearts so much, that they cannot be cold down by anything," vv. 57-58]. Responsible for this upset state are the "messaggi" ["messengers," v. 59] that reach the heart through the eyes, echoing Giacomo's theoretical definition of love that we have just seen: "gli occhi a lo core sono gli messaggi / dei suoi incominciamenti per natura" ["the eyes are the messengers to the heart of the first symptoms of love, according to natural explication," vv. 59-60]. Guido explains the root of love ("incominciamenti," v. 60) and its dramatic repercussions in accordance with the laws of physics ("per natura," v. 60).

Another physiological account of the phenomenology of love and sense-perception, with acute cross-reference to Giacomo, is the canzone *Ancor che·ll'aigua per lo foco lasse* [4.5]. Although the use of *sportare* (probably from Occ. *desportar*, "to move") is a singular choice in the lexical context of the Sicilians, Guido's line "lo spirito ch'i' aggio, und'eo mi sporto" ["the spirit that I possess, with which I move myself," v. 62] sheds some ulterior light on the Aristotelian context evoked in the poem.[83]

In the fourth stanza of *Ancor che·ll'aigua*, Guido is explaining how the "spirito che porto" ["the spirit that I carry, v. 59] is not his anymore, given the harsh pain that he had to suffer for his lady, so that he "fora già morto / tant'ò passato male tuttavia" ["I would be dead

[83] Corrado Calenda, in editing and commenting the poetry of Guido delle Colonne in the volume *Poeti della corte di Federico II* cit., pp. 106-07, argues that the overall meaning of the stanza is very uncertain, and that the poem lacks a sufficient connective logic to allow a better understanding. I do not agree with him, and I believe Guido is more than knowledgeable in his philosophical argumentation, as I hope to show in these pages.

already, such is the pain I had to constantly suffer," vv. 60-61]. I propose to read in this "spirito" a reference to the locomotive *pneuma* that accounts for movement in the Aristotelian treatise *De motu animalium*, as the connective, material power originating in the heart that generates movement in the animal.[84] The spirit that moves Guido's body originated from his beloved lady, who instilled with the passion that she generated a plethora of movements in his cardiac region and now inhabits his heart for his own pleasure:

> lo spirito ch'i' aggio, und'eo mi sporto,
> credo lo vostro sia,
> che·nnel meo petto stia
> e abiti con meco in gran diporto.
>
> [The spirit that I possess, with which I move myself, I think belongs to you, (the same spirit) which stays in my heart, and pleasurably dwells with me, vv. 62-65]

As extensively described in the rest of the stanza, as soon as the poet saw his beloved lady, "li vostri occhi piagenti / allora m'addobraro" ["your beautiful eyes redoubled me," vv. 70-71]. What does it mean to say that the lady's eyes "redoubled" the poet? The visual spirits who – as explained already by Giacomo – pierced through his eyes and were collected in his heart were added to the original spirits already possessed in the cardiac region, thus "doubling" them ("addobraro") and forcing him to carry on living and loving. Guido is in total agreement with Giacomo in his tenzone with Iacopo Mostacci and Pier della Vigna, and considers visual

[84] On the treatise in the physiology of Aristotle, see the third section of this chapter (1.3 *Aristotle's Psycho-Physiological Project*). Although entirely unavailable in Latin language until William of Moerbeke's translation in the 1260s, *De motu animalium* was nevertheless known to Albert the Great through an anonymous translation that he found during his travels in Southern Italy, as testified by his paraphrase *De principiis motus processivi*. See the reconstructed edition, based on Albert's text and Greek sources, *De motu animalium. Fragmenta Translationis anonymae*, ed. P. De Leemans, *Aristoteles Latinus XVII.1.III* (Turnhout: Brepols, 2011).

perception at the core of love phenomenology, with the heart as the ultimate collector of sense-images and "nutricatore" of the passion by means of recollection.

But in this particular stanza, Guido adds interesting, natural details that inform us of his Aristotelian background. In arguing that the visual spirits of the lady were added to the vital spirits of his soul, Guido is here describing a physiology coherent with that of his fellow poets at court and in accordance with the biology of Aristotle. By means of his extensive natural knowledge, Guido reminds us that the *pneuma* in the cardiac region, which has now been charged with the presence and yearning for the lady, is also responsible for the lover's movement, because it is the medium through which the locomotive soul can act in the body. As explained in *De motu animalium*, since thinking and imagination "produce the forms which bring them about," they also "produce that which bring about the affections" (*De mot. an*. 11; 703 b 19-20). And since the heart is the central sensorium, the cardiac region is thus "altered though sense-perception and thus changes," with the result that "the adjacent parts change with it and they too are extended or contracted, and in this way the movement of the creature necessarily follows" (*De mot. an*. 9; 702 b 20-24). Once collected through the eyes, the visual images of the lady, in stirring a passionate reaction in the locomotive spirit of the poet, are added to the natural spirits which carry on the movement of the animal, and thus the feelings of the lover are coordinated with his attachment for his beloved.

The heart is considered both a collector for sense-images and repository of memory also in other poets of the court. As Rinaldo d'Aquino states in the very incipit of the canzone *In gioia mi tegno tuta la mia pena* [7.7], he reveres any imaginable outcome of love passion – even the negative ones like pain and suffering – as a source of "gioia" ["joy," v. 1]. Since the passion originates from the everlasting power of memory, it is able to receive nourishment from the

images preserved in the heart even in the darkest times: as Paris did with Helen of Troy during the most challenging moments of war, "così fac'io, membrando per ognora" ["so do I, always remembering," v. 4]. The memory in the heart is the origin of both pain and joy, but the poet is not bothered with this tearing contrast, since the heart "non cura [...] s'à pene, / membrando gioia che vene" ["does not care if it has sorrows, in remembering the joy that will eventually come," vv. 5-6]. Being such a central organ in the cognitive faculties of the subject, the heart is even able to overcome the time aporia of remembering things that are still to come.

Ruggeri d'Amici's *Lo mio core che si stava* [2.2], which can be rightfully labeled as a canzone "of the pensive heart," elaborates from a cognitive standpoint the Aristotelian centrality of the heart as the organ proper to the sensitive soul. In *Lo mio core che si stava* and this author's other extant canzone, [85] thinking and recollecting are both elaborated as a complex process that involves the cardiac region from the very opening lines of the poem: "Lo mio core che si stava / in gran pensero" ["my heart, that was so overwhelmed with thoughts," vv. 1-2] was in such frail a situation and on the verge of death because of the remembrance of the past joy with the lady – "quando mi rimembrava / del vostro amor [...] / al core sofria gran pene" ["when I would remember your love, my heart suffered great sorrows," vv. 8-11]. Since this is a canzone of departure, the distance between the poet and the beloved, who gladly reciprocated his passion – "la gioia nostra / che faciavamo noi insembra" ["our joy, that we would do together," vv. 26-27]

[85] See Ruggeri's *Sovente Amore n'à ricuto manti* [2.1]: "Di lei sovemmi, ca ten lo mi' core, / e non me ne poria giamai partire, / però che saria corpo sanza vita" ["I remember of her, who has command over my heart, and I cannot be away from it – the heart, or the memory of the lady? –, for I would be a lifeless body," vv. 37-39]. In his commentary *ad locum*, Aniello Fratta is inclined to take the *ne* of line 38 as referring back to the heart of the relative, but it may well refer to the act of recollection presented in line 37, thus stating the indissoluble link between memory of the lady and living powers of the subject.

–, is the source of a despondent memory that physically burdens the heart wit thoughts,[86] so that "lo cor me ne sta pensoso" ["the heart is overwhelmed with thinking," v. 28].

Two poets to whom I turn now show an original, semantic overlap between faculty of judgment and the organ of the heart. At first sight, it might be assumed that these two poets are distinguishing between the powers of the mind – and thus, the cognitive processes involved – and the sensitive soul of the heart, in an imbalance already discussed by Allegretto in her essay.[87] But I believe that an attentive reading of these works manifest a coherence with the Aristotelian physiological system that I have delineated in these pages, as well as an original take on their fundamental tenets.

The anonymous canzone *Già non m'era mestiere* [25.13] dramatizes the tight relationship and the tension between eyes, heart, and judgment, all called into action in the phenomenology of love. Since the eyes revealed themselves as traitors ["gli ochi miei traditi," v. 2] when they consented to see the beloved lady, the poet is now in utmost distress. As soon as the poet saw the lady for the first time, he lost his heart, which was taken away captive by the eyes ["gli ochi il m'ànno raputo," v. 9], eventually to be given as a gift for the beloved. After the consignment of his heart, the poet is "ismaruto" ["dismayed," v. 13] and "nnon [...] intero" ["incomplete," v. 14], even more so because the eyes left him together with the stolen heart: "da me son dipartuti / con grande tradimento / gli ochi e 'l core per vero" ["with great treason, the eyes and the heart have truly departed from me," vv. 15-17]. The poet has nothing left to which he can appeal if not his

[86] In Medieval Italian *pensare/pensiero*, a derivative of Occ. *pensier*, preserve part of the original Lat. PENSO, "to weigh, ponder," therefore stressing once again the materiality of the thought process.

[87] See Allegretto, "Figura amoris" cit., pp. 241-42. See also above 1.2 *De-Gallicizing Giacomo's* cera.

own judgment ["senno," v. 25], which he addresses as his companion-advocate against his misfortunes ["mio avantiparlieri," v. 27]. But when he tried to look for his judgment inside him, he could not find it, because it departed together with the eyes and the heart: "m'àve abandonato, / e ora èste acordato / con quei tre rubatori" ["it abandoned me, and now it is in collusion with those three thieves," vv. 43-45]. The lady is thus in possession of the eyes, the heart, and the judgment of the poet: as we have seen in the other lyrics of this chapter, these three elements are tightly connected, and one cannot live without the others. For a reader who is used to consider the heart as the repository of the memory, but also the origin of the faculty of judgment, it would be more than natural to consider it an accessory in the crime depicted in this canzone, on account of the cognitive and physiological proximity of the two.

Giacomino Pugliese pairs for the first time an apparent contrast between the mind and the heart in his poems, as a sort of characteristic feature of his style.[88] The canzone *Tutor la dolze speranza* [17.2] features the dichotomy between heart and mind, treating them as two independent entities, as in this entreaty to his lady: "in fallare non aggie cor né mente" ["do not consider betraying me, either in your heart or in your mind," v. 45]. But still, Giacomino seems to state a direct correspondence and relation between the heart and the mind in *La dolce cera piasente* [17.6], where he affirms that the sight of his beloved "lo cor m'allegra e la mente" ["brings joy to both the heart and the mind," v. 3], and "lo cor mi trae di martiri / e ralegrami la mente" ["it takes my heart out of the pain, and cheers up my mind," vv. 31-32]. Apparently, for

[88] On the dichotomy between *mente* and *core*, and the physiological shift between a patently Aristotelian cardio-centrism in which the heart is not a metaphor of interiority, but an actual physical place where cognition takes place, and the localization of thought in the brain of the animal, which triggers a more nuanced understanding of the faculties of the heart, see chapter 2 (*Minding the Brain*), especially 2.3 *A Galenic System Towards Reconciliation*, pp. 143-63.

Giacomino the heart feels, while the mind thinks,[89] but the two activities cannot be conceived as together and one, even though their movements can be two sides of the same coin.

As I have shown in this section, the elaborate trope of the image carved into the heart of the poet as developed by Giacomo da Lentini formulates an array of collateral images that are related to the same physiological paradigm, described by Aristotle in his natural books. The heart is understood in its material and psycho-physiological features and its functions are devised by some of the Sicilian poets not out of mere, fictional imagery, but directly from the texts of natural philosophy.

1.6 Bloody Transmissions

The persistence of an Aristotelian influence in the Sicilian poets can be detected also in the role that blood plays in the system of the *Parva naturalia*.

The physiological processes of transmission of sensorial and memorial data interest not only the cardiac area, but the entire body as well. Aristotle's three short treatises on sleep and dreams (*De somno et vigilia*, *De insomniis*, *De divinatione per somnium*) analyze both the bodily and psychological components of these functions. The alternation between the states of wake and sleep is described as an alternation between actuality and potentiality of sense perception in the *synolon* of body and soul, because "waking [...] consists in nothing else than the exercise of sense-perception, the inference is clear, that that in virtue of which animals perceive, is that by which they wake, when they are awake, or sleep, when they are asleep" (*De somn. et vig.* 1; 454 a 5-6). So the animals who have the ability to perceive are also able to sleep and be awake, while

[89] See for a deeper contrast Giacomino's *Quando veggio rinverdire* [17.7]: "al cor sento ond'io mi doglio, / madonna, per gelosia, / 'l pensamento mi fa orgoglio" ["I feel it in my heart, whence I suffer, my lady, out of jealousy, and the mind is unfriendly to me," vv. 20-22].

those without perception are not, because "both these [i.e. sleep and wake] are affections of the activity of the primary faculty of sense-perception" (*De somn. et vig*. 1; 454 a 22). Once again, Aristotle reiterates the centrality of the heart and its faculties in the physiological processes of the animal. The alternation is necessary in order for the sensitive powers to function properly, since an uninterrupted state of perception would render the animal impotent. During sleep, the sensors are inactive just accidentally, meaning that they are still able to operate, but their sense-images are not collected and reorganized by the common sensorium. Sleep thus "does not consist in the mere fact that the senses do not function or that one does not employ them, nor even in the inability to exercise the sense-perception," insomuch as these activities are still in potency of the sensors, but the inactivity is only "in the primary organ with which one perceives objects in general" (*De somn. et vig*. 2; 455 b 4-10).

Perception and movement share the same place of origin with the principle of sleep and wake (*De somn. et vig*. 2; 456 a 1), and the alternation between these two living statuses is dependent on the conservation of the natural humidity of the region and its heat. But the heart is also located in the center of the body in order to exercise the nutritive function necessary to growth at its best, as explained in *De juventute*: "the source of the sensitive soul, together with that connected with growth and nutrition, is situated in this organ [*scil*. the heart] and in the central one of the three divisions of the body" (*De. juv*. 3; 469 a 23-27). Hence the cardiac region is part of a system that processes and administrates nutrition throughout the entire body of the animal. During digestion, the food is transformed into its hot and wet qualities, is administered into blood, and tends to rise up towards its natural living principles (i.e. the heart). But as we have seen earlier, the heart's warm qualities are counterbalanced by the cooling activity of the brain, thus the nutrients precipitate down towards the chest area again due to condensation, and

this induces a lack of sensibility in the central sensorium on account of this compression: “fits of drowsiness are especially apt to come on after meals; for the matter, both the liquid and the corporeal, which is borne upwards in a mass, is then of considerable quantity. When, therefore, this comes to a stand it weighs a person down and causes him to nod, but when it has actually sunk downwards, and by its return has repulsed the hot, sleep comes on, and the animal is presently asleep” (*De somn. et vig*. 3; 456 b 23-28). The natural cooling down of the nutritive elements in blood and its weight provokes a qualitative change in the middle area of the body, which becomes heavier and colder, thus making inactive the sensitive powers of the heart. What is left in blood from the nutrients is naturally condensed by the coldness of the brain, as happens when the humidity of the air is transformed again into rain: “as moisture turned into vapour by the sun's heat is, when it has ascended to the upper regions, cooled by the coldness of the latter, and becoming condensed, is carried downwards, and turned into water once more,” so the humidity in the nutritive blood is forced to condense and thicken, and it is carried down towards the common sensorium (*De somn. et vig*. 3; 457 b 30-33). With its alternations in fluidity, the blood is an active part in the sensitive process, and its nature can alter or facilitate the activity of the senses.

As I have discussed above, Aristotle already treated this issue in the anatomical books, where he describes the differences in cognitive aptitude between animal species. Since there is diversity in the quality of the blood not only from a species to another, but also in the same animal (*De part. an*. II 2; 647 b 31-648 a 4), sense-perception and intelligence too are related to the substance of blood. A purer and thinner blood facilitates the operation of the senses and all the cognitive processes of the animal, while the earthier the blood is – and thus, the heavier and denser it gets – the more the animal’s intelligence is negatively affected. Differences in animal

sensibility work as the natural alternation in the status of wake and sleep does. Precise sensibility and keener intellect are proper to a thinner and more fluid substance, while a dense and cold blood affects perception and the other cognitive abilities (*De part. an*. II 4; 650 b 20-24).

Sleep is then "a sort of concentration, or natural recoil, of the hot matter inwards" (*De somn. et vig*. 3; 457 b 1-2), where this natural heat is weighted down by the remainders of the nutritive process. The animal remains asleep for the time necessary for the blood to digest its nutrients and separate its residual turbidity from the other purer components (*De somn. et vig*. 3; 458 a 22-25). Aristotle also discusses the constitutional differences between individuals in these terms, where the tendency to sleep is favored by the rigidity of the veins or a bodily formation that impedes the natural resurgence of heat in the cardiac region (*De somn. et vig*. 3; 457 a 1-32).[90]

The quality of the blood, its material constituents and its fluidity are all variables in the sensitive process of the animal. This explanation is given during a physiological discussion on dream-making from the residual sense-images of the day. In *De insomniis*, Aristotle links the faculty of perception to the generation of dreams and to the creation of judgments while sleeping: "dreaming is an activity of the faculty of sense-perception, but belongs to this faculty *qua* imaginative" (*De insom*. 1; 459 a 21).[91] Now, even though an explicitly textual reference to

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[90] See Jurgen Wiesner, "The Unity of *De Somno* and the Physiological Explanation of Sleep in Aristotle," in *Aristotle on Mind and the Sense: Proceedings of the Seventh Symposium Aristotelicum*, ed. G.E.R. Lloyd, G.E.L. Owen (Cambridge, UK: Cambridge University Press, 1978), pp. 241-80; van der Eijk, *Medicine and Philosophy in Classical Antiquity* cit., pp. 169-205.

[91] See also what Aristotle affirms in *De somno et vigilia*: "some persons move in their sleep, and perform many acts like waking acts, but not without an image or an exercise of sense-perception; for a dream is in a certain way a sense-perception" (*De somn. et vig*. 2; 456 a 24-26). Aristotle clearly links the faculty of dreaming to the imaginative power of the sensitive soul.

the heart has not been made in this chapter of the treatise, it logically follows from what Aristotle says in the rest of his corpus that dreams too – in being an activity of the sensorial faculty – are related to the region of the heart of the animal, where sense-perception, movement, and imagination originate. Not in disagreement with what we have already seen in other treatises of the *Parva naturalia*, the relationship between dream-making and sense-perception is strengthened by the permanence of sense-images in the subject even after the external object has ceased to affect the sensors (*De insomn*. 2; 460 b 1-26). If, as we are told, sense-images are created like impressions in wax,[92] these can still affect the perceiving subject through the persistency of the sensitive stimuli. As Aristotle explains, "any appearances whatever present themselves, not only when its object moves a sense, but also when the sense by itself alone is moved, provided only it be moved in the same manner as it is by the object" (*De insomn*. 2; 460 b 24-25). Thus, if some sort of impression is still active in the subject, a certain margin of error is to be taken into consideration, because what is perceived might not correspond to what is actually in reality, as when a shadow of the sun is still visible through the shuttered eye-lid (*De insomn*. 2; 459 b 6-16).

Aristotle is very careful in describing how the permanence of these sensorial stimuli is at the origin of dreams: while during the day these dormant impressions are shadowed by the continuous flow of sense-images coming from outside, "just as a smaller is beside a larger fire,

[92] See the discussion in the fifth section of this chapter (1.5 Ut animalium pictura: *Sensation and Memory*).

or a small beside great pains or pleasures" (*De insomn*. 3; 461 a 2),[93] during sleep the individual sensors are inactive because of the torpidity resulting from the residual digestive matter weighing on the cardiac region. When then the subject is still sleeping, but the blood is becoming purified again – since, as we have seen, when the blood is too murky and dense sense-perception is muffled –, this collection of latent sensations re-emerges on the surface and "causes an image to present itself, and makes the dreamer think, owing to the effect borne in from the organ of sight, that he actually sees, and owing to those which come from the organ of hearing, that he really hears; and so on with those also which proceed from the other sensory organs" (*De insomn*. 3; 461 a 24-30). The surfacing of dreams then is part of the complex circulatory system described in the other physiological treatises on sleep, a system that connects the digestive functions with the natural alternation of wake and sleep, sensorial perception, and mnemonic activity.

Blood is always an essential element in this description, since for Aristotle it functions as a medium for these sense-images to re-appear. Although recognizing the difficulties of the text, van der Eijk is overly cautious in not considering blood as an active instrument in this process, and proposes an alternative reading in which the blood itself is the impediment for the images to resurface. The dynamics are however unclear between sense-images and the fluidity of blood: if during sleep the blood re-descends towards the heart, thus allowing sensation to emerge from its latency, where are these images stored in the first place? Van der Eijk's argument does not seem

[93] See also *De divinatione per somnium*: "For the movements which occur in the daytime are, unless very great and violent, lost sight of in contrast with the waking movements, which are more impressive. In sleep the opposite takes place, for then even trifling movements seem considerable" (*De div. per somn*. 1; 463 a 7-10). This last treatise on sleep is very clear in delineating a rational-scientific explanation of dream-making, and thus rejecting the divine nature of oneiromancy. This attitude is not too distant from that of the author of *On sacred disease*, who explains epilepsy in medical terms and not by means of demonic causes.

very illuminating in this respect.[94] According to Mingucci, who also is in tune with the commentaries of David Ross, David Gallop, and Pawel Siwek, blood itself seems to be the best candidate for the vehicle that transmits sensations through the body to the common sensorium.[95] As explained by Aristotle, "when one is asleep, in proportion as most of the blood sinks inwards [i.e. to the heart], so the internal movements, some potential, others actual, accompany it inwards" (*De insomn*. 3; 461 b 11-12). The text goes on to argue that these stimuli are like "the artificial frogs in water which rise to the surface as the salt becomes dissolved" (*De insomn*. 3; 461b 15). When the impediment to their floating on the surface gives way, these latent sense-images "begin to move in the blood which remains in the sensory organs," since they are like "the remnant of a sensory impression taken when the sense was actualizing itself" (*De insomn*. 3; 461 b 17-22). Dreams are thus made of the stuff of sensorial images, lingering in the sensors and impossible to discern during day activity, or when the blood is too turbid and agitated, but ready to emerge during sleep, as soon as the blood grows calm and shares this residual perception with the common sensorium.

This physiological analysis of sense-images preserved in blood after perception took place and the understanding of blood as a material vehicle for images to be transported around the body is productive of a series of tropes in some poets of the Sicilian school, in tune with the

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[94] See Aristotle, *Parva naturalia III. De insomniis. De divinatione per somnium*, ed. with commentary by P. van der Eijk (Berlin: De Gruyter, 1994), *ad locum*.

[95] See Mingucci, *La fisiologia di Aristotele* cit., pp. 140-44; Aristotle, *Parva naturalia*, ed. W.D. Ross (Oxford: Clarendon Press, 1955), p. 278; Aristotle, *On Sleep and Dreams*, ed. D. Gallop (Peterborough, ON: Broadview Press, 1990), p. 152; *Aristotelis Parva naturalia: Graece et latine*, ed. P. Siwek (Rome: Desclée, 1963), p. 234, 65n.

Aristotelian description of sense-perception and memory as analyzed previously, with respect to the image inscribed in the wax-heart of the poet.

The trope of an image resurfacing from the heart in form of tears, and creating a "tempest" of external manifestations of pain and discomfort, is already present in the opening lines of Giacomo da Lentini's *discordo Dal cor mi vene* [1.5]. The "rosata" ["dew," v. 2], an analogical representation of the tears of the poet, covers the eyes and the face of the subject, and in being a sincere symptom of the distress felt by the poet, it comes directly from the heart. In this unwilled separation from the lady – as a matter of fact, he is "pur aspetando" ["continuosly in wait," v. 11] –, the distressed memory of the beloved is the only tangible object that can be contemplated by the poet, and the physicality of these mnemonic images informs the tears that flow incessantly from his face: "la rimembranza / di voi, aulente cosa, / gli ochi m'arosa / d'un'aigua d'amore" ["the memory of you, perfumed thing, bathes my eyes in a water of love," vv. 23-26]. This image is the load-bearing pillar of the *discordo*, and it is explained as the natural consequence of the sensorial images stored in the heart while waiting – "ca pur aspetando, / in voi 'magginando" ["for while in restless wait, contemplating the image of you," vv. 11-12] –, images that are now actively recollected and re-lived in the absence of the lady.

The heart is the always-awake organ of memory – "ca·ss'io veglio o sonno piglio, / lo mio cor no 'nsonna" ["for if I am awake or at sleep, my heart is sleepless," vv. 72-73] –, meaning that also in the waving alternation of wake and sleep, the cardiac region is potentially overwhelmed with the quantity of sense-images recollected from the senses. At the center of the self's perception, memory, and recollection, the heart is one of the voices of this fragmented lyric I, as represented in the direct dialogue of the third stanza. The heart is the distressed interlocutor of the poet, and in the alleged silence of its paralipsis – it says "non ti rispondo" ["I will not

answer you," v. 56] –, followed by a fair amount of talking, it manifests the urge to warn against the dangerous fallout of an enduring separation from the lady: "ben ti confondo / se tosto non vai / là..." ["I will be your demise, if you do not go there at once," vv. 57-59]. Giacomo is using the idea of an array of fluid mnemonic images in this *discordo* to represent the physicality of his tears and their material connection with the recollection of the beloved lady.

But the poem in which the Aristotelian treatises on sleep are most present and employed is undoubtedly Re Enzo's *S'eo trovasse Pietanza* [20.2]. This famous canzone, composed by Frederick II's natural son Heinrich/Heinz, while held captive in Bologna (1249-1272) – and with whom probably Bolognese poets collaborated in the writing/re-elaboration of this poem –, summarizes and concludes the concepts variously analyzed in the course of this chapter. Indicative too of the movement towards the North undertaken by Sicilian poetry in the course of the second half of the 13th century, Re Enzo has been rightfully labeled by Gianfranco Contini as a key figure in the introduction of the Sicilian modes in the upcoming capital of Stilnovismo.[96] In his canzone, the heart, sensible receptacle of all sensation, is put in relation with sense-perception, the elaboration of images and their memorial retention, by means of the substance of blood, which is able to haul the sensible images on account of its fluidity and balanced temperament.

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[96] See *Poeti del Duecento*, ed. G. Contini, 2 vols. (Milan: Ricciardi, 1960), vol. 1, pp. 155-56. On the figure of Re Enzo and his relationship with Bologna and Bolognese intellectuals, especially Taddeo Alderotti and Guido Guinizzelli (with which the second chapter of this dissertation will also deal), see Bologna, *Re Enzo e il suo mito*, ed. A.L. Trombetti et alii (Bologna: Deputazione di storia patria, 2001). On the Staufen heritage in the city and Re Enzo, see also Anna Laura Trombetti-Budriesi, "La figura di Re Enzo," in *Federico II e Bologna* (Bologna: Deputazione di storia patria, 1996), pp. 203-40; Armando Antonelli-Riccardo Pedrini, "Appunti su Re Enzo nella cronachistica bolognese tra il XIII e il XIV secolo," in *Federico II e Bologna* cit., pp. 241-94; on the literary context in Bologna during the 13th century, see Luciano Formisano, "Aspetti della cultura letteraria a Bologna al tempo di Federico II," in *Federico II e Bologna* cit., pp. 107-38.

As explained in the third stanza, the pain felt and remembered by the poet is collected in the heart as if it were an excessive liquid accumulation, and from there it is distributed to the rest of the body, in order for it to feel the original painful feelings:

> Ecco pena dogliosa
> che nel meo core abonda
> e sparge per li membri,
> sì ch'a ciascun ne vien soverchia parte.
>
> [There is my aching pain, which overflows in my heart, and is distributed in my limbs, so that each of them receives an excessive amount of distress, vv. 29-32]

The heart is so full of torments that it cannot have a moment of rest, like the incessant motion of the sea-waves: "giorno non ò di posa, / come nel mare l'onda" ["I do not have a moment of rest, just like the waves in the sea," vv. 33-34]. The poet is amazed by the natural resilience of his heart, which is still in one piece – "core, che non ti smembri?" ["my heart, how is that you are not dismembered yet?" v. 35] – even after the continuous strikes to which it has been subject: "tutti quei pensamenti / ca spirti mei divisa, / sono pene e dolore" ["all those thoughts that divide my spirits, are pain and sorrow," vv. 43-45]. The physiological features originate, as is traditional, from the movements of the cardiac region, so that "'l natural colore, / tuto perdo, tanto il cor sbatte e lagna" ["I lose my natural complexion, such are the sufferings and lamentations of my heart," vv. 49-50]. And it is even more interesting for our physiological reading to note that in the Sicilian tradition of this canzone, preserved in Giovanni Maria Barbieri's *Dell'origine della poesia rimata* (ed. Girolamo Tiraboschi, Modena: Società Tipografica, 1790), a collection that bequeaths the supposedly original Sicilian language in

which these poems were written, line 49 actually reads "natural caluri" ["natural heat"],[97] therefore linking the distressing pain of memory to a physiological alteration in the heat of the heart, linked, as we have seen, to the transmission of sense-images throughout the body of the subject.

The disheartening last cry represents once again the overflowing pain felt in the heart, and the superabundance of blood in the entire region: "che è zo, che no mori, / poi ch'à sagnato il core?" ["how is it so, that you do not die, since the heart is bleeding?" vv. 52-53]. The heart is bleeding on account of the excessive emotions recollected in its chambers, the very areas responsible – as we have seen in the previous lines – for the propagation of perception throughout the body, and the reliving of the impressions as they were stored in the sensorium. By means of the imaged perception and the recollection of sensation, the heart is understood by Re Enzo as the psycho-physiological central organ of the cognitive faculties of the animal, by way of an array of Aristotelian texts that are productive of the images used in his canzone.

In the course of this chapter I have shown that the poets of the Sicilian school understand the organ of the heart physically as the central sensorium of the human body. Moreover, the poetry of this school elaborates a series of tropes that derive – often verbatim – from the physiological description of the heart's functions, as delineated by Aristotle in his biological treatises. In this respect, Giacomo da Lentini *in primis*, but also his other fellow poets at court, were reacting to and reworking an anatomical idea in their writings, in order to give material presence to the interiority emerging in their lyrics. This system, as I have shown in the course of

[97] On the ecdotic problem of this line, see Rosario Coluccia, "L'edizione dei «Poeti della Scuola siciliana». Questioni vecchie e nuove." *Studi di filologia italiana* 72 (2014), pp. 11-36, especially pp. 13-16.

my analysis, shows a coherent effort in the approach to the reception and translation of Aristotelian physiology, and sets apart the poetry of the *Scuola siciliana* from the more widespread medical literature of the time. As I will show in the following chapters, Sicilian poetry utilizes an array of biological texts that had already been proved insufficient in describing the sensorial faculties of the human body, and yet these poets are unashamedly old-fashioned in the centrality they give to the powers of the heart.

Chapter Two

Minding the Brain: Medieval Galenism in the Sicilian-Tuscans and Guido Guinizzelli

2.1 Introduction

The poetry of Giacomo da Lentini and his fellows showed us how the intellectuals of the Sicilian court actively responded to Aristotelian physiology of sensation, in creating an array of images that revolve around cardiac functions and around their effects upon the rest of the body. As I briefly mentioned at the end of chapter one, Aristotle's description of cognitive processes is not the only viable solution to the relationship between body and mind; indeed, it is a physiological theory against which specialized medical literature had to respond when the powers of the brain were regarded with more attention. In the course of this chapter, I will first propose a reading of the Galenic medical sources with respect to the localization of the cognitive powers in the cerebral area, and the ways in which a clash of authorities was voiced in the debates of Italian poetic circles. On the one hand, the heart started to lose the strict bodily connotation it possessed in Sicilian poetry, and gained a more nuanced – but often shifting – set of properties. On the other hand, once detached from the physiological processes of the heart, the cluster of terms referring to the mind shows an unprecedented entanglement of meanings that will pave the way for the intellectualization of passion as seen in the poetry of the last quarter of the 13th century.

Second, I will trace the long-lasting influence of Galenic literature in the poetry of Guido Guinizzelli di Magnano (1230s-1276), judge and prosecutor of the city of Bologna, and one of the main literary points of reference of the new schools of poetry. I will also consider Guinizzelli vis-à-vis the achievements of the medical school of Taddeo Alderotti (1206/1215-1295), the "dux medicorum" of the 13th century. The attention devoted to the physiology of love in the poetry of Guinizzelli testifies to the early reception of Taddeo's scientific endeavors, and will allow me to explain some interpretative cruces in their literary and intellectual biographies.

Before moving to Galenic physiology, I will linger a moment on the cultural webs of Bologna in the second half of the 13th century. Towards the end of the previous chapter, I proposed a physical reading of Re Enzo's canzone *S'eo trovasse Pietanza* that underlined the dialogue between Frederick II's natural son and the Aristotelian treatises on sleep and dreams.[1] Although the attributive question surrounding this poem is far from settled,[2] it is nonetheless inspiring, from a hermeneutical point of view, to see how far from the intellectual centers of the Sicilian school the influence of Aristotle's natural books could prove influential. The complicated attribution of the poem, which can be safely assumed to have been written in Bologna during the years of Re Enzo's imprisonment,[3] is indicative of the cultural connections in the city during the second half of the century: part of the manuscript tradition relates the name of Semprebene as the author (erroneously spelled Nascimbene in the Vatican manuscript), while the

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[1] See above, 1.6 *Bloody Transmissions*, pp. 89-100.

[2] On the debated authorship of the canzone, see Corrado Calenda's *cappello introduttivo* to *S'eo trovasse Pietanza*, in *I poeti della scuola siciliana*, edizione promossa dal Centro di studi filologici e linguistici siciliani, (Milan: Mondadori, 2008), vol. 2: *Poeti della corte di Federico II*, dir. C. Di Girolamo, pp. 729-31, with ample bibliography.

[3] In his commentary, Calenda follows the traditional attribution to Re Enzo (p. 731), recently revamped by Stefano Rapisarda, "Ipotesi di ricollocazione tematica di due testi della Scuola poetica siciliana: è sicuro che «S'eo trovasse Pietanza» di Re Enzo e «Meglio val dire» di Rinaldo d'Aquino parlano d'amore?," in *La lirica romanza del Medioevo. Storia, tradizioni, interpretazioni*. Atti del Convegno triennale della Società Italiana di Filologia Romanza, Padova-Stra, 27 settembre-1 ottobre 2006, ed. F. Brugnolo, F. Gambino (Padua: Unipress, 2009), pp. 699-720. See also Rosario Coluccia, "L'edizione dei «Poeti della Scuola siciliana». Questioni vecchie e nuove." *Studi di filologia italiana* 72 (2014), pp. 11-36.

rest variously attributes the lyric to Re Enzo, alone or in collaboration with Semprebene, or even with Guido Guinizzelli.[4]

As proposed by Guido Zaccagnini, Semprebene seems to be identifiable with a Bolognese notary and (possibly) poet, son of Ugolino di Niccolò della Braina, and nephew of a physician named Niccolò.[5] The collaboration, whether or not simultaneous with the writing of the poem, between the illustrious captive and the city notary (later substituted in the manuscripts with the more famous poet Guido), can give us an insight into the fervent intellectual circles of Bologna. While Enzo was being held prisoner in the *Palatium Novum* (which almost immediately took the name from his noble tenant), his charismatic figure gathered around himself some of the most prestigious people active in Bologna at the time, whose names will recur often in the course of this chapter.[6] Situated north of Piazza Maggiore, where some of the important families of the city had their headquarters, Palazzo Re Enzo is the visual and infrastructural center of the cultural lives of Bologna, around which family clans, legal professionals, and poets had to converge in their daily routine. Although the recent scholarship of Armando Antonelli, Luciano Rossi, and Giorgio Inglese has uncovered the connections between

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[4] For a *stemma codicum*, see Franca Brambilla Ageno, *L'edizione critica dei testi volgari. Seconda edizione riveduta e ampliata* (Padua: Antenore, 1984), pp. 299-301, who suggests an active collaboration between Re Enzo and the notary Semprebene, or a later intervention of the latter.

[5] See Guido Zaccagnini, *Per la storia letteraria del Duecento. Notizie biografiche ed appunti dagli archivi bolognesi* (Milan: L.F. Cogliati, 1913), pp. 49-54.

[6] On the legend of Re Enzo in Bologna, see Anna Laura Trombetti Budriesi, "La figura di Re Enzo," Armando Antonelli-Riccardo Pedrini, "Appunti su Re Enzo nella cronachistica bolognese tra il XIII ed il XVI secolo," and Franco Bergonzoni, "Il Palazzo di Re Enzo in Bologna," all three in *Federico II e Bologna* (Bologna: Presso la deputazione di storia patria, 1996), respectively at pp. 203-40, 241-294, 295-300.

legal professionals, literary circles, and university culture,[7] this network still remains largely unexplored with respect to the contribution of the physicians to the emerging cultural milieu in the vernacular.[8] Totally uncharted territory are the connections between Guido Guinizzelli with the professional activity of Taddeo Alderotti, which might well have been catalyzed by the presence of Frederick II's son in Bologna. As I will argue in the following pages, the medical curriculum of Taddeo Alderotti has to be put into communication with Guido Guinizzelli's professional biography in order to shed light on the cultural trends of their times. Around Palazzo Re Enzo, Taddeo and Guinizzelli had possibly a chance to network: as I will show, Guido Guinizzelli's legal advice was sought in some penal charges that involved other inmates of the prison, while Taddeo Alderotti was one of Enzo's personal physicians. These three figures were all deeply invested in the relationship between science and vernacular tradition: Enzo as the son of Frederick, and a poet himself; Guinizzelli as the initiator of a scientific trend in lyric poetry that will characterize the following decades; Alderotti as an important contributor to the shaping of philosophical prose through his writings and translations.

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[7] See for instance Armando Antonelli, "Un processo bolognese del 1286 contro il magister Tommaso d'Arezzo." *Per leggere* 15 (2008), pp. 5-13; Id., "Nuovi documenti sulla famiglia Guinizzelli," in *Da Guido Guinizzelli a Dante. Nuove prospettive sulla lirica del Duecento*. Atti del Convegno di Studi (Padova-Monselice, 10-12 maggio 2002), ed. F. Brugnolo, G. Peron (Padua: Il Poligrafo, 2004), pp. 59-106; Luciano Rossi, "La posizione storica del giudice-poeta," and Giorgio Inglese, "Appunti sulla canzone 'Al cor gentil': 'inselva' e altro," both in *Intorno a Guido Guinizzelli*. Atti della giornata di studi (Università di Zurigo, 16 giugno 2000), ed. L. Rossi, S. Aloatti Boller (Alessandria: Edizioni dell'Orso, 2002), respectively at pp. 9-20, 57-68.

[8] Recent scholarship on the contribution of the medical milieu to the vernacular culture in Sonia Gentili, *L'uomo aristotelico alle origini della letteratura italiana* (Rome: Carocci, 2005), and Natascia Tonelli, *Fisiologia della passione. Poesia d'amore e medicina da Cavalcanti a Boccaccio* (Florence: SISMEL-Edizioni del Galluzzo, 2015).

Albeit interested in the scientific images used by Guinizzelli in his poetry, scholars have treated them mostly as simple references that would be equally good in any situation, as if writing philosophical poetry were the same anywhere in the Italian peninsula. A careful historicization of some passages in Guido's poetry can give us some interesting perspectives on his natural interests. Let us take for instance one of Guinizzelli's debated sonnets, *Sì sono angostïoso e pien di doglia*.[9] As proposed by his latest commentator, in this poem Guinizzelli seems to lament his civic exile in terms that are akin to those of love lyric, in a form that harks back to the Provencal and French models (think of William of Aquitain's *Pos de chantar m'es pres talenz* [BdT 183.8]) and that will later inspire Guido Cavalcanti's *Perch'i' no spero di tornar giammai*.[10] Although plain in its poetic style, the sonnet is hermeneutically complex,[11] especially in the second quartina, which reads:

> Disnaturato son come la foglia
> quand'è caduta de la sua verdura,
> e tanto più che m'è secca la scoglia
> e la radice de la sua natura.
>
> [I lost my nature as the leaf when it falls from the branches, and even more so for in me it is dried both in the bark (?) and in the root of its nature, vv. 5-8]

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[9] Guido Guinizzelli, *Rime*, ed. Luciano Rossi (Turin: Einaudi, 2002). All references to Guinizzelli's poems are from this edition. My translations here and elsewhere.

[10] See Rossi's *cappello introduttivo* to the poem, pp. 58-59. On Cavalcanti's intertextual reference, see Michelangelo Picone, "Addii e assenza. Storia di un motivo lirico dai trovatori a Petrarca." *Vox Romanica* 53 (1994), pp. 34-48.

[11] A point that Furio Brugnolo highlighted in the entire poetical corpus. See Furio Brugnolo, "Spunti per un nuovo commento a Guido Guinizzelli," in *Intorno a Guido Guinizzelli* cit., pp. 37-56.

In his commentary for *Poeti del Duecento*, Gianfranco Contini takes the last word of the poem ("torto," v. 14) generally as "injustice" done against the author – so great a tort to cause the distress expressed in the verses. While rightfully stressing the importance of the scientific engagement of Guido's poetry as part of his personal reading of the Sicilian style (especially Giacomo and Guido delle Colonne), Contini does not go along with affirming that Guido's natural inspirations go beyond any imaginative novelty.[12] Hence, according to him, *Sì sono angostïoso* remains eccentric with respect to the rest of his mature production (exemplified by the canzone *Al cor gentil*, and the sonnets in praise of *madonna*), and he does not put it into contact with the other references to the rest of the corpus.

The commentary edition by Robert Edwards does not resolve the troublesome interpretation of the second quartina, in which Guido, "facing separation, whether from his beloved or his homeland, [...] sees himself, as a torn leaf, dry bark, or a root pulled from the earth."[13] Edwards, by emphasizing the importance of correctly identifying the terms of the similitude, furthers a political interpretation of the sonnet: since nothing in the poem, according to him, clearly refers to a situation of love distress, Guido must have had in mind his exile instead. Even though a political interpretation might well be possible for the sonnet, in view of

[12] See the *cappello introduttivo* to "Guido Guinizzelli," in *Poeti del Duecento*, ed. G. Contini, 2 vols. (Milan-Naples: Ricciardi, 1960), vol. 2, pp. 450-84.

[13] *The Poetry of Guido Guinizzelli*, ed. and transl. R. Edwards (New York: Garland, 1987), p. xxxiii. The passage however is too free a paraphrasis to be used fruitfully as a translation or commentary.

other similar, poetic conflations that are discussed in the commentaries,[14] one could argue that exile is not named either, and so it has the same hermeneutic plausibility. The reader is thus left with a sense of bewilderment, because if the image is clear enough to be understood in general terms, the exact identification of the correlatives is not as simple, and eschews a univocal reading. It is clear that the subject of the poem feels like a torn leaf because of an unwilled separation, and yet one is left to wonder why the gaze of the simile shifts to the overall dryness of the tree, once the leaf has fallen, which eventually overlaps with the second identification of the subject with the tree itself. Moreover, thanks to Armando Antonelli's recent researches on Guido's biography, we might even question that Guinizzelli was ever exiled from Bologna,[15] thus forcing us to reconsider the distress of the separation as a lyrical one. I shall propose another, scientific interpretation, which can shed light on Guinizzelli's cultural references, on his relationship with the intellectual milieu of Bologna, and again on the contribution of medical authorities to the lexicon of the early lyric poetry in Italy.

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[14] Rossi (p. 58) focuses on the political theme of exile, developed through the style of lyric poetry, and notices the attention paid on the word "doglia" [pain, v. 1] which puts Guinizzelli in contact with other similar poems, like William IX's *Pos de chantar m'es pres talenz* [183.8], and the anonymous *Poi ch'è sì doloroso* [49.12]. But unlike Guinizzelli, William makes textual reference to the fact "Qu'era m'en irai en eisil" [for now, I shall go in exile, v. 5], and the anonymous canzonetta to the fact that "poi dentro da la Fior non fo ritorno" [since I will not come back inside the flower/Florence, v. 8], thus explicitating the reasons for their political "doglia." On the theme of exile, see Raffaella Zanni, "Dalla lontananza all'esilio nella lirica italiana del XIII secolo." *Arzanà. Cahiers de littérature médiévale italienne* 16-17 (2013), pp. 325-63.

[15] See Antonelli, "Nuovi documenti sulla famiglia Guinizzelli," in *Da Guido Guinizzelli a Dante* cit., pp. 89-105. Other useful scholarship on the biography of Guinizzelli is Armando Antonelli, "I Guinizzelli, discendenti di Magnano, residenti nella Cappella di San Benedetto di Porta Nuova (Tavola B)," in *Magnani. Storia, genealogia e iconografia*, ed. G. Malvezzi Campeggi (Bologna: Costa, 2002), pp. 27-43; Rossi, "La posizione storia del giudice-poeta" cit., e Id., "Ultimissime su Guido Guinizzelli di Magnano," in *Intorno a Guido Guinizzelli* cit., pp. 213-14; and the entry "Guido Guinizzelli (Guinizelli)" authored by Giorgio Inglese in the *Dizionario biografico degli Italiani* (Rome: Istituto dell'Enciclopedia Italiana, 1960-), vol. 41 (2003), pp. 391-97.

Before coming to the 13th-century developments in the field of medical investigation, it is necessary to go back to the contrasting theories in physiology as furthered by Galen and Aristotle. As I shall show in the next two sections of this chapter, the mature fruits of Galenism tended to reconcile these two diverging authorities, with interesting solutions both in the field of medicine and in that of philosophy. What is more relevant for our discussion is to see the formation of an original, poetic way to deal with these opposing theories: a *forma mentis*, as it were, which is traceable in the images through which the poets took part in this debate, as a literary engagement with this demanding – albeit tentative – reconciliation.

2.2 Matters of Physiology: Galen's Response to Aristotle

Galen's attitude towards previous medical and scientific endeavors is deeply rooted into the Hellenistic mind-frame of its time. While the Hippocratic corpus remained always at the core of his medical theory and practice, Galen greatly benefited from other philosophical schools and disciplines in his scientific development, with Pergamon, Alexandria, and Rome as three of the main cultural centers in which he refined his knowledge. As Luis García Ballester put it in his comprehensive book on Galen's intellectual development, the diversity of philosophical stimuli to which he was exposed since his youth, and the variety of medical theories which he confronted in his massive production, made Galen a perfect example of "bourgeois Hellenistic

intellectual," for whom the preoccupation for the ancient tradition is always accompanied by a modality of reconciliation that nurtured his scientific system of medicine.[16]

In more general terms, Galen's philosophical positions can be described as one of the various forms of eclecticism that characterize later Greek and Latin thought, where Platonism, Aristotelianism, and Stoicism often coexist within the same author. Following Philip Merlan, Phillip de Lacy has argued that Galen's thought is deeply influenced by the Platonists of the second century CE (also known as Middle Platonism), and that he is especially close to philosophers such as Apuleius and Albinus, with whom he studied in Smyrna.[17] In this respect, Galen is often open to integrating some of Plato's accounts with philosophical fragments coming from Aristotle, the Stoics, or Hippocrates, in order to both complete the system of nature as delineated in the Platonic writings, and to show the agreement and vicinity of thoughts in the greatest writers about all things *physis*.

This search for agreement is not however the main focus of Galen's philosophical activity, and despite his efforts of accounting for all the writers of nature, his main goal is to find

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[16] See Luis García Ballester, *Galeno en la sociedad y en la ciencia de su tiempo* (Madrid: Ediciones Guadarrama, 1972), pp. 26-53. On Galen's adaptability to the cultural environments of his lifetime, see Owsei Temkin, *Galenism. Rise and Decline of a Medical Philosophy* (Ithaca: Cornell University Press, 1973), pp. 10-50, and Joel Kaye, *A History of Balance, 1250-1375: The Emergence of a New Model of Equilibrium and its Impact on Thought* (Cambridge: Cambridge University Press, 2014), pp. 128-82. Useful recent introductions to Galen's biography are Richard J. Hankinson, "The Man and His Work," and G.E.R. Lloyd, "Galen and His Contemporaries," in *The Cambridge Companion to Galen*, ed. R. Hankinson (Cambridge: Cambridge University Press, 2008), pp. 1-33, 34-48, and Vivian Nutton, *Ancient Medicine* (New York: Routledge, 2013^2), pp. 222-35.

[17] See Philip Merlan, "The Later Academy and Platonism," in *The Cambridge History of Later Greek and Medieval Philosophy*, ed. R.H. Armstrong (Cambridge: Cambridge University Press, 1967), pp. 53-83, Phillip De Lacy, "Galen's Platonism." *The American Journal of Philology* 93/1 (1972), pp. 27-39, and Richard Hankinson, "Philosophy of Nature," in *The Cambridge Companion to Galen* cit., pp. 210-41.

the truth about the physical world. By virtue of his own eclectic background, Galen refuses to adhere to one specific school of thought, in order to eschew the predicament of defending his philosophical champions more than actually searching for a solution in a problem of natural philosophy. As he says in his auto-bibliographical book *De ordine suorum librorum* (Περὶ τῆς τάξεως τῶν ἰδίων βιβλίων), faithfulness to one specific scientific or philosophical sect is seldom due to a profound study of demonstrative science, but rather depends on biographical affinity (*De ordine suorum librorum* I 3-4). The risk resulting from such a personal engagement with one's sect of choice is that, in case of disagreement, or patent error, the believers are not able to see the faults in their masters clearly: as Galen put it in *De placitis Hippocratis et Platonis* (Περὶ τῶν Ἱπποκράτους καὶ Πλάτωνος δογμάτων), "those who proclaim themselves followers of a sect have as their aim the defense of all its tenets, even if these tenets have no necessary logical relation to its basic teachings" (*De placitis* IX 7 5-6).[18] Galen's attitude towards his masters and authorities is – at least, according to his own statements – often dictated by a relentless search for the truth, not matter whose views he has to challenge in his writings.[19]

Many pages of his works are dedicated to contrasting different opinions on natural grounds, and often venerable authorities of the likes of Aristotle and Plato. If the influence of the

[18] English transl. *Galeni De placitis Hippocratis et Platonis*, ed. P. De Lacy, *Corpus Medicorum Grecorum*, V 4.1.2, 3 vols. (Berlin: Akademie der Wissenschaften, 2005).

[19] And see also the eloquent passage from *De facultatibus naturalibus* III 10 (K II: 179): "He whose purpose is to know anything better than the multitude do must far surpass all others both as regards his nature and his early training. And when he reaches early adolescence he must become possessed with an ardent love for truth, like one inspired; neither day nor night may he cease to urge and strain himself in order to learn thoroughly all that has been said by the most illustrious of the Ancients. And when he has learnt this, then for a prolonged period he must test and prove it, observing what part of it is in agreement, and what in disagreement with obvious fact; thus he will choose this and turn away from that." English transl. Galen, *On the Natural Faculties*, transl. A. J. Brock (Cambridge, Mass.: Harvard University Press, 1916).

Platonic system in undeniable in many aspects of Galen's oeuvre, in matters concerning biology, physiology, and medicine Aristotle seems to be the preferred battleground for Galen's investigations. In this section I will provide a general overview of Galen's system of medicine and physiology, through a reading of his fundamental "course syllabus" in the subject matter, and I will follow the points in which Galen's principles are either divergent from or consistent with those of Aristotle.

In speaking of a "course syllabus" in Galen's system of medicine and physiology, I am referring to the conclusive part of the short treatise *Ars medica*,[20] which is dedicated to a list of works deemed necessary for all students embracing the art of medicine. Galen wrote this brief introduction to the most important definitions of medical terms and concepts in his later years, and despite its simplistic exposition and summary-like qualities, it has probably been the most influential among his writings, given the primacy it had in the medical curriculum and the sheer volume of commentaries and quotations dedicate to it through the late ancient, medieval, and early modern eras.[21]

Galen delineates a detailed course of studies in the final chapter of his work (*Ars medica* 37), in which he traces a syllabus that follows specific issues related to medicine and physiology. The course starts with an assessment of the most basic, material components of natural

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[20] Galen's Τέχνη ἰατρική has been known with different Latin titles throughout the ages: *Ars medica* or *medicinalis* are the literal translations of the Greek title; *Ars parva* and *Microtechne* are used to distinguish this work from the books on therapeutics (Μέθοδος θεραπευτική, *Methodi medendi*), also known as *Ars magna* or *Megatechne*; a vulgarized spelling of the Latinate title gives *Microtegni*, and the familiarity with this introduction is patent also in the much simpler title of *Tegni*. Throughout this chapter, I will always refer to Galen's Τέχνη ἰατρική as *Ars medica*.

[21] See Per-Gunnar Ottosson, *Scholastic Medicine and Philosophy. A Study of Commentaries on Galen's* Tegni (Naples: Bibliopolis, 1984).

philosophy, which are the elements, discussed in the treatise *De elementis secundum Hippocratem* (Περὶ τῶν καθ᾽ ᾽Ιπποκράτης στοιχείων),[22] followed by a systematic analysis of the compounds resulting from the mixtures of these elements, known as *De temperamentis* or *De complexionibus* (Περὶ κράσεων). The investigation of one of the core principles in Galenic medicine (i.e. the temperaments) can be followed by either a study on pharmacology and the actions of drugs, or by an analysis of how temperaments and physiology intertwine in the powers of the body. The latter is discussed in the treatise *De naturalibus facultatibus* (Περὶ δυνάμεων φυσικῶν), where the study of the natural processes of the body are introductory to other somatic and psychological powers. In order to understand the most complex functions of the human body (as delineated in *De placitis Hippocratis et Platonis*, for instance), Galen advises a thorough understanding of anatomy and physiology, which are to be found in the works *De anatomicis administrationibus* (Περὶ ἀνατομικῶν ἐγχειρήσεων) and *De usu partium* (Περὶ χρείας μορίων), and which will pave the way for both more specialized problems of anatomy and physiology and for particular diagnostic measures (*De locis affectis*, Περὶ τῶν πεπονθότων τόπων).

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[22] I prefer to list Galen's writings with both the Greek title and (usually the most common) Latin title of the translation, to avoid confusion and pinpoint the correct work at each time. Titles and their usage, also with reference to their distribution in the history of translations, are from Gerhard Fichtner, *Corpus Galenicum. Bibliographie der Galenischen und Pseudogalenischen Werke* (Berlin: Akademie der Wissenschaften, 2015). See note 43, for an example of this practice. Greek text is quoted from *Claudii Galeni Opera Omnia*, ed. C.G. Kühn, 20 vols. (Leipzig: C. Cnobloch, 1821-1833), or from the modern editions of the *Corpus Medicorum Graecorum*, whenever possible. English and Medieval Latin translations (from either printed editions or manuscripts) are cited in note. An indispensable database of information regarding the Medieval Latin translations of Galen is the project *Galeno Latino* (www.galenolatino.com), extensively used in this chapter, which gathers the published and unpublished research of Richard Durling on the Galenic tradition; see Richard Durling, "Corrigenda and Addenda to Diels' *Galenica*: I. Codices Vaticani." *Traditio* 23 (1967), pp. 461-76; Id., "Corrigenda and Addenda to Diels' *Galenica*." *Traditio* 37 (1981), pp. 373-81; Stefania Fortuna-Annamaria Raia, "Corrigenda and Addenda to Diels' *Galenica* by Richard Durling: III. Manuscripts and Editions." *Traditio* 61 (2006), pp. 1-30.

As the list shows, Galen's biology and physiology follows a basic principle that is already found in Aristotle's natural books, i.e. the distinction between elements and compounds, and between homogeneous and dissimilar parts. The anatomical descriptions of the parts depend on the Aristotelian categories of place, form, function, and finality,[23] but while Aristotle tentatively tries to offer a pure anatomy of the natural beings, for Galen the anatomical analysis of the parts is always connected to the physiological function that the parts perform in life. As Ballester defines it, Galen's anatomy cannot eschew the "morphological iatrocentrism" of his *physiologia*, with repercussions that will cascade until the modern era, when the anatomists will draw a drastic line between morphology and function of the parts.[24] Therefore, it is incorrect to separate logically these two concepts in the system of Galenic medicine, since any morphological description of the part is always inseparable from the analysis of its function in the organic system of the body. This attitude towards the scientific analysis on the human depends heavily on what Laín Entralgo individuates as the core of Galen's anatomical research: Galen does not give an anatomical account of the animal deprived of its vital functions, but his purpose is to give a description of the body of the human "in the whole of its specific, vital movement."[25] To anticipate briefly here a complex history that I will examine in the following section,[26] some of the tentative solutions found in Medieval Galenism on the inconsistencies between medical and

[23] See Ballester, *Galeno* cit., pp. 99-100; Pedro Laín Entralgo, *Historia de la medicina* (Barcelona: Salvat, 1978), pp. 72-78.

[24] See Ballester, *Galeno* cit., pp. 72-114.

[25] Lain Entralgo, *Historia de la medicina* cit., p. 77: "Galeno, en suma, se propone describir el cuerpo del animal humano en la plenitud de su específico movimiento vital."

[26] See below 2.3 *A Galenic System Towards Reconciliation*.

philosophical authorities are not plausible in Galen's mind: for instance, the question whereby the human body has one directive principle or three cannot be held from either a medical *or* a philosophical standpoint (as for instance in Avicenna), since the description of the part is not disjoined from its actual role in the complex system of the body as a whole.

Let us start first with a discussion on Galen's reading of Aristotle's elemental principles. As stated in almost every page of Galen's oeuvre, the search for the perfect balance is the goal of the physician, and the state of health is indissolubly wedded to the idea of *eucrasia* (good mixture): "A body is healthy in the general sense [Gr. ἁπλῶς, Lat. simpliciter] when it has from birth a good mixture [Gr. εὔκρατον, Lat. eucraton] of the simple, primary parts, and good proportion [Gr. σύμμετρον, Lat. coequale] in the organs which are composed of these. A body is healthy with application to the present [Gr. νῦν, Lat. ut nunc] when it enjoys this state for the time being" (*Ars medica* 2; K I: 309-310).[27] This concept is not only a theoretical framework to which Galen must dedicate his philosophical discussion, but an active and directive principle to his medical practice. As a matter of fact, Galen refers back to the importance of eucrasia from the time of his investigation on the elemental and qualitative principles in medicine, when, in a thorough analysis of the opinions of his predecessors, he stumbled upon Aristotle's conflicting views on the issue.

As Galen states in the very opening of his *De complexionibus*, the investigation on the primary qualities of nature can be conducted from either a physical or a biological standpoint. To

[27] English transl. Galen, *The Art of Medicine*, in *Galen: Selected Works*, ed. P. N. Singer (Oxford: Oxford University Press, 1997), pp. 345-96. Medieval Latin quotations are from the *translatio antiqua*, executed from Greek by an anonymous translator presumably during the first half of the 12th century: see Richard J. Durling, "Lectiones Galenicae: Τέχνη ἰατρική (Kühn, I, 305-412)." *Classical Philology* 63 (1968), pp. 56-57. Text in *Galieni Pergamensis medicorum omnium principis Opera*, ed. Diomede Bonardo, 2 vols. (Venice: Pincius, 1490), vol. 1: BB3r-8v.

the former, as I said above, Galen dedicates a specific treatise, titled *De elementis secundum Hippocratem*, while the entire *De complexionibus* is centered on the latter issue, i.e. how the elements and their primary qualities appear in the animal bodies. As is common in Classical physics, the entire physical world is constituted by opposite, primary qualities (i.e. hot, cold, dry, and wet),[28] that are understood by virtue of the elements themselves (i.e., fire, air, water, and earth), although in a compound form.[29] If medical practice is greatly devoted to the identification and correction of the unbalanced state of primary qualities in the body, the physical definition of such qualities is of utmost importance for both the physician and the *physiologus* alike. Galen goes on to say that the commonly accepted doctrine is that there are four kinds of compounds, i.e. "a wet hot mixture, a wet cold mixture, a dry cold mixture, and a dry hot mixture" (*De complexionibus* I 2; K I: 510-11). Although certain physicians debate the existence of a hot wet

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[28] Galen, *De complexionibus* I 1 (K I: 509): "Animal bodies are a mixture of hot, cold, wet, and dry; and these qualities are not mixed equally in each case. This was adequately demonstrated in ancient times, by the best philosophers and doctors [Gr. φιλοσόφων τε καὶ ἰατρῶν, Lat. et philosophorum et medicorum]." English transl. Galen, *Mixtures*, in *Galen: Selected Works* cit., pp. 202-89. Medieval Latin quotations are from *Burgundius of Pisa's Translation of Galen's* ΠΕΡΙ ΚΡΑΣΕΩΝ*, "De complexionibus."* ed. R. Durling, *Galenus Latinus* II (Berlin: De Gruyter, 1976). The translation was made on the original Greek by Burgundius of Pisa around mid-12th century; see Fernand Bossier, "L'élaboration du vocabulaire philosophique chex Burgundio de Pise," in *Aux origines du lexique philosophique européen: l'influence de la* latinitas. Actes du colloque international (Rome, 23-25 mai 1996), ed. J. Hamesse, *Textes et Études du Moyen-Âge* 8 (Louvain-la-Neuve: Fédération international des instituts d'études médiévales, 1997), pp. 81-116.

[29] Ibid.: "When we say that bodies are a mixture of 'hot, cold, dry, and wet', we understand by this the extreme case [Gr. ἄκρως, Lat. summe] of each of those qualities, in other words the actual elements: air, fire, water, and earth." According to Galen, Hippocrates too refers to the elements when he is mentioning their primary qualities. See *De elementis secundum Hippocratem* I 8 (K I: 476): "Hippocrates' own words will make it clear to you that in the treatise On the nature of man he often refers to the elements by the names of their qualities." English transl. *Galeni De elementis ex Hippocratis sententia*, ed. P. De Lacy, *Corpus Medicorum Grecorum*, V 1.2 (Berlin: Akademie der Wissenschaften, 1996).

and cold dry mixture, on the basis that in the first case the hotness would consume the wetness with its heat, and in the second case the cold would humidify the dryness of the compound, Galen is categorical in his refusal, and backs his argumentation up with reference to Aristotle's analysis of qualitative change. If, as Galen states, "any change [Gr. μεταβύλλον, Lat. quod... transmutar] in a body consists in a movement towards the opposite" (Ibid.; K I: 515), therefore a prior state in which the opposite state was present must be predicated as logically necessary. If hotness indeed heats and consumes the natural, wet quality, and the coldness does moisten the natural, dry quality, thus "the sane, reasonable kind of statement is rather that a previously wet body has become dry..., or viceversa" (Ibid.; K I: 514-15).

But Galen introduces in the debate another principle that was not taken into account by his predecessors, or better still, one which had always been logically present in their minds, but which they had never discussed explicitly in their writings. Galen laments the fact that, instead of debating whether one mixture or another is better for the body, both doctors and philosophers have "left out of their account the well-balanced mixture [Gr. τὴν εὔκρατον φύσιν, Lat. eucraton complexionem], which is actually superior to all those mentioned above, in both excellence and potential" (*De complexionibus* I 3; K 1: 519). The eucrasia cannot be "disregarded in its existence," since it would be impossible to predicate anything about the other qualities or mixtures without referring to it. Nor can any medical intervention be performed without considering the balanced state to which the physician is aiming, by the introduction of what is missing, and by the elimination of what is excessive. The eucrasia becomes thus the "yardstick" to which "they attempt to remedy poor states of mixtures" (Ibid.). Any other divergence from

this (necessarily ideal) state of being is *dyscrasia* (bad mixture), which might eventually lead to sickness and death if not properly corrected.[30]

And yet there are physicians and philosophers who regard a certain complexion as the ideal over the others, as we see in Athenaeus of Attalia and his pneumatic school of medicine, but also in the writings of Aristotle, Theophrastus and the Stoic philosophical school. According to Galen, who admits his embarrassment in the face of such a plethora of authorities, the preference for a hot wet mixture traces back to a misunderstanding of what Aristotle said.[31] The general assumption is as follows: a hot wet complexion usually never leads to serious illness;[32] it is generally associated with the best temperament in terms of character and bodily appearance (as in the sanguineous);[33] and is on the farthest point from sickness and death, being as it is close to the physiological principle of life (hot and wet, the "radical moisture" to be consumed during lifetime).[34] Thus by being associated with the best time in lifetime, the best season and weather,

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[30] Galen, *De complexionibus* I 3 (K I: 521): "if there is a slight excess of heat over cold, or of wet over dry, this constitutes an imbalance; that if that predominance is greater there will be disease; and that if it is very great indeed, the patient will die."

[31] Ibid. (K I: 523): "This, then, is the opinion of the followers of Athenaeus [of Attalia]. The same appears to be the opinion of the philosopher Aristotle, of Theophrastus, and subsequently also of the Stoics; so that we are embarrassed by the majority of witnesses."

[32] Ibid. (K I: 522): "They claim that every illness is either hot and dry, as in the case of fever, or cold and wet, like dropsy, or cold and dry, like melancholy."

[33] Also with the best and most lively stage of life, as in ibid.: "they regard childhood as hot and wet and thus well-balanced, finding proof of this good balance in the fact that the natural activities have their greatest vigour at this age." But the idea of the sanguineous temperament as the best dyscrasia has a long history, through pseudo-Aristotle's *Problemata* to Medieval Scholastic medicine.

[34] Ibid.: "They also make the point that death causes dryness and cold in animal bodies; corpses are referred to as *alibas*, on the grounds that they no longer possess any *libas* or moisture."

and the best qualities of the living bodies, a hot and wet mixture must be sought by the physician to preserve and increase the life of the patient.

Galen clarifies this mistaken assumption from two viewpoints, one that is based on evidence and natural observation, while the other one is based on a semantic misunderstanding that occurred in the reading of Aristotle. As for the former, Galen goes back to the Hippocratic text *Epidemics* to demonstrate that hot and wet weather, commonly associated with springtime, is neither well-balanced, nor healthy for animal life.[35] Moreover, to say that springtime is hot and wet is to commit a semantic and logical error, since, as Galen said in the opening of the treatise, nothing in nature has a determined quality in the absolute sense, but only relatively: thus spring is hotter and wetter than winter, but colder and dryer than summer.

As for the latter, Galen attacks his opponents on the logical ground of the correct interpretation of Aristotle. According to Galen, those who prefer a hot and wet mixture above everything else, on the assumption that the best season in the year has the same balance, are incorrectly following both Aristotelian logic and natural observation. The confusion is generated by those who "embark upon natural philosophy without proper previous training in the techniques of reason by which it is to be investigated" (*De complexionibus* I 5, K I: 534).

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[35] Galen, *De complexionibus* I 4 (K I: 524-34), but see in particular K I: 529: "My own view is that heat and moisture, so far from being the characteristics of spring, or of good mixture in general, in fact constitute the worst possible state of the ambient air, a state which does not occur naturally within the seasons at all, but sometimes comes about in conjunction with states of disease or plague." It is evident here the distance between Galen's position, and what is predicated in the Hippocratic treatise *De natura hominis*, especially in chapter 7, where springtime is clearly associated with a hot and wet temperament, and a sanguineous nature. Later on (K I: 533-34), Galen seems to consider springtime the eucrasia of the seasons, in which none of the primary qualities is excessive: "it is quite evident to the senses that spring is a perfectly well-balanced season; and rational argument clearly shows the grounds for its healthiness, namely than none of the four elements predominates. [...] The equality of mixture of the four is the reason for its good balance and its health."

Primary qualities in their absolute sense, as we said above, are to be found solely in the pure elements: everything else in nature has a certain quality, or a compound thereof, depending on the predominance of such qualities. Aristotle, as Galen knows well, understood this fundamental difference in his physical accounts, and yet his readers are completely mistaken on the terminological nuances of the terms employed. They keep referring to seasons, objects, drugs, and bodies as hot wet or cold dry, but they fail to see "the sense in which those terms are intended in context." In their statements, they compare the hotness of summer to that of elemental fire, thus perpetuating serious mistakes in the medical and logical fields.

In this first book of *De complexionibus*, Galen is at odds with the interpreters of Aristotle, rather than with the Stagirite himself. While going back to the fundamental points of Aristotle's natural philosophy, Galen is able to summarize the issue at stake with striking clarity:

> Dryness in the absolute sense, without reference to any other object, belongs only to the elements, fire and earth; and moisture to water and air. Heat and cold should be understood in the same way: no other object is perfectly hot or cold, only the elements. Any other object that you encounter is a mixture of these, and is described as hot or cold not in this absolute sense, of something pure and unadulterated, but in the second sense, whereby it has in it more heat and less cold, or vice versa.
>
> These, then, are two meanings of the terms 'hot', 'cold', 'dry', and 'wet': the first, when we refer in the absolute sense to something which has that quality in pure, unmixed form; the second, when we use the term to indicate a predominance of that quality in an object which is a mixture of opposites.
> (*De complexionibus* I 6; K I: 538-539)

We can regard the fundamental difference between "absolute sense" and "predominance" as the distance between the ideal, physical space of elemental properties, always postulated but ungraspable in its reality, and the concrete dimension of the natural world, a compromise among different qualities and bodies which participate to the primary elements. This perspective needs to be present to the mind of the physician in his medical practice, since a great deal of labor is dedicated to the individuation and restoration of the well-balanced temperament in the human

body. All the different possible combinations of primary qualities result from the mixture of elements and their qualities. According to Galen, these are nine: four compounds, hot wet, hot dry, cold wet, cold dry; four simple, hot or cold (wet and dry are in balance), dry or wet (cold and hot are in balance); and the eucrasia, where all the qualities are in perfect balance. How is it therefore possible for the physician, not only to comprehend, but to apply these conceptual categories in his medical practice? The physical experience with the natural objects that are dominated by one or more primary qualities can offer a directive principle, but with the firm understanding that the absolute sense will never be fully realized in the physical world. As Galen suggests, one might grasp a sense of what the perfect balance between hot and cold is by mixing an equal amount of ice and boiling water, but that will never even be comparable to the perfect eucrasia.

Relying once again on the Aristotelian philosophy of biology, Galen is able to conceptually save this system for the use of medical practitioners and physicians. If the reality of the elements (be it sensorial or physical) is never wholly possible to achieve in the natural compounds of the world, the *functionality* of the perfect balance is something that the physician can and must keep in mind. Although not apprehensible via the senses,[36] the well-balanced temperament is the one that allows the appropriate functions of the human. The human body that

[36] For Galen, this is also due to the physical reality of the elements themselves, which are so small not to be apprehensible by the sense, as explained in *De elementis secundum Hippocratem* I 1 (K I: 413-14): "Since an element is the least part of a thing of which it is an element, but what appears least to sense-perception and what is truly least are not the same – for many things go unperceived because of their small size –, it is evident that sense-perception would not be the judge of each thing's natural and true elements. [...] For this reason Hippocrates too, when inquiring into the elements of man's nature, disdains those parts that are simplest and first relative to the senses and seeks those that are so in truth and by nature". Therefore, investigation must follow indirect principles that are not dependent on sensorial perception in order to reach the first realities of nature.

is thus able to perform perfectly all of its functions, according to the character of his/her soul,[37] must be perfectly complexioned, since the relation between bodily functions and temperament is of direct causality.[38] As for the Canon of Polyclitus, the human body that shows the same perfect balance of proportions in its qualities is just as able to perform the best natural functions possible to a human being, "for good proportion in this respect is a product of good balance" (*De complexionibus*, I 9; K I: 567). This "perfect man" not only is an example of the divine excellence in the creation of Nature, but also the ideal state to which all other imbalances can be measured by the physician. According to Galen, if the sensorial individuation of the perfect balance between primary qualities and compounds is not an easy task for those investigating the things of nature, the comprehension of the bodily functions of the human can testify to the degree of balance to which they depend: as once again the Canon of Polyclitus, this perfectly complexionated and functioning human being "may be regarded as a kind of yardstick or

[37] The physical determinism to which Galen often refers between bodily reality and psychological functions will be discussed more fully in the following chapter, especially 3.3 *Towards a Galenic Somatic Determinism*, pp. 214-28. See also Luis García Ballester, *Alma y enfermedad en la obra de Galeno. Traducción y comentario del escrito* Quod animi mores corporis temperamenta sequantur (Valencia-Granada: Cuadernos Hispanicos de Historia de la Medicina y de la Ciencia, 1972).

[38] Galen, *De complexionibus* I 9 (K I: 565-66): "The appropriate function of man, for example, is the peak of intelligence [...]. And of course the activities of the body must be appropriate [Gr. οἰκείας εἶναι κρή, Lat. proprios esse oportet] to the character of the soul, as was shown by Aristotle in Parts of animals and not less fully by me."

standard [Gr. κανόνα καὶ γνώμονα, Lat. regulam et cognitorem] by comparison with which all others will be called hot, cold, dry, or wet" (*De complexionibus*, I 9; K I: 565).[39]

Over the course of the entire treatise, terminological distinctions are at the core of Galen's medical discussion, with recurrent explicit references to Aristotle's biology and logic. If, as we will see below, Galen's and Aristotle's physiologies are not entirely compatible under many respects, physical argumentation and principles are often the same. Aristotle provides Galen with the basic elements to understand the natural world, in a systemic physical philosophy that can be applied to the medical field as well.[40] As Luis García Ballester eloquently put it, Galen's attitude toward experimentation is "to provoke the epiphany of the *lógos* of the *physis* in

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[39] Galen goes on with describing the perfectly balanced "canon" of the human being in the following pages of the treatise: not only he will be "midway between all the extremes" (and of course a male, because "female-kind is by nature colder than male-kind," *De complexionibus* II 4; K I: 606), but "such a person will eat and drink in a well-proportionated manner, and digest his food as well, not just in the stomach but also in the veins; his entirely bodily condition will manifest faultless physical as well as mental activities. His perceptive faculties will be in the best possible state, as will the motions of his limbs; his colour will be good, and also his breathing; he will strike the balance between somnolence and insomnia, between baldness and hairiness, and between the black and white colours of hair. As a child his hair will have inclined towards red rather than black; in his prime the reverse will be the case" (*De complexionibus* II 1; K I: 576-77).

[40] Together with Hippocrates and Plato, Galen is always very attentive in individuating where the two philosophers agree in their principles. For instance, see the discussion on the common substrate of the matter, in which, according to Galen, both Plato's *Timaeus* and Aristotle's *De generatione et corruptione* are in agreement: "the substrate of all of them is one thing, a single substance that is common to the first bodies and underlies them," although this does not explain physical change and the diversity of elements in nature (*De elementis* I 4; K I: 445-46). Hippocrates challenged the wrong conclusions of the pre-Socratic philosophers, and "Aristotle appears to have cast his arguments in the same form as Hippocrates" in the first book of *Physics* (*De elementis* I 5; K I: 448). Moreover, Galen owes a lot of his understanding of Hippocrates' *De natura hominis* to the Aristotelian treatise *De generatione et corruptione*, particularly in his explanation of a prime matter (ἀρχὴ ὕλη) underlying all the elements and their qualities (see *De elementis* I 6; K I: 457-73), and of the different kinds of alteration and movement (see *De elementis* I 7; K I: 473-76; *De naturalibus facultatibus* I 2; K II: 2-7).

the *lógos* of the physician,"[41] whereby both *lógos* and *physis* are clearly defined by an Aristotelian framework.[42]

Galen's biology and physiology are so indebted to the Aristotelian treatises that even more specialized issues follow the theoretical distinctions that Aristotle laid out in the second book of his *De partibus animalium*. As a matter of fact, the composition of the most basic elements of the universe (matter, primary qualities, compounds, humors, and temperaments) is at the core of Galen's treatise *De naturalibus facultatibus*, while the treatise *De usu partium* (and to some respect, *De locis affectis* as well) centers around the individuation and description of the homogeneous (τά ὁμοιομερῆ) and heterogeneous parts (τά ἀνομοιομερῆ) of the human body.

The same terminological precision that was at the center of *De complexionibus*, guides Galen's treatise *De naturalibus facultatibus* from its very beginning, where the physician starts his discussion with a clear-cut distance from Aristotle's positions on the soul. As we have seen in the previous chapter,[43] Aristotle has a complex understanding of what the soul is, in relation with its organization and functions (*De anima* II 1-2, and *passim*). On the other hand, Galen prefers to

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[41] Ballester, *Galeno* cit., p. 123: "Galeno busca con sus experimentos fisiológicos provocar la epifanía del *lógos* de la *physis* en el *lógos* del experimentator."

[42] And once again, Galen puts this framework into a Hippocratic investigation of nature as well, in which sensation (as far as it can go) and reason must cooperate together: "There are two instruments for the discovery of propositions such as this, experience and reason [Gr. ἐμπειρίας καὶ λόγου, Lat. experimento et ratione]" (*De elementis* I 2; K I: 422). Medieval Latin quotations of Galen's *De elementis* are from the anonymous translation attributed to Burgundius by Richard Durling. Text in City of Vatican, Biblioteca Apostolica Vaticana, MS Vat. Lat. 2375, fols. 91ra-99va, at f. 91va. On the knowability of the *physis* and the presence of this concept in the works of the *Corpus Hippocraticum*, see also Pedro Laín Entralgo, *La medicina hipocrática* (Madrid: Ediciones de la Revista de Occidente, 1970), pp. 46-63, especially pp. 49-50.

[43] See 1.3 *Aristotle's Psycho-Physiological Project*, pp. 37-47.

distinguish between psychological (Gr. τὰ τῆς ψυχῆς, Lat. animae) and natural (Gr. τὰ τῆς φύσεως, Lat. naturae) functions of the soul (*De naturalibus facultatibus* I 1; K II: 1).[44] According to Ivan Garofalo and Marco Vegetti, Galen's distinction may be dependent upon the centrality granted to the nervous system in his medical physiology, and the difference between voluntary functions (i.e., those controlled by the sensorial and cognitive powers of the soul, by means of the nerves), and involuntary functions (i.e., those of growing, decaying, nutrition, and the like), which depend on the powers of nature (hence the title) and not on the individual soul of the animal.[45] Galen does not regard the concept of a "vegetative soul" as wrong, but only unusual, and this oddity might lead to serious misunderstanding. And yet, this pivotal difference makes clear how Galen wants to distance himself from the authority of Aristotle in the field of bodily and psychological functions. For Aristotle, the operations of the vegetative soul are the first step towards the psychological system of all living beings, and thus these functions might well be

[44] Medieval Latin quotations of Galen's *De naturalibus facultatibus* are from Burgundius of Pisa's translation, executed from Greek during the second half of the 12th century. Text in City of Vatican, Biblioteca Apostolica Vaticana, MS Vat. Lat. 2375, fols. 401ra-423va, at f. 401ra.

[45] Galeno, *Le facoltà naturali*, in Id., *Opere scelte*, eds. I. Garofalo, M. Vegetti (Turin: UTET, 1978), pp. 833-956, at p. 847n: "L'attribuzione della crescita e della nutrizione alla 'natura' rientra nella distinzione operata da Galeno tra facoltà naturali, non governate dalla volontà, e facoltà psichiche, sottoposte alla volontà. Il superamento delle teorie aristoteliche è reso possibile dalla scoperta del sistema nervoso, che stabilisce la corrispondenza tra assenza di nervi e facoltà naturali, e fra presenza di nervi e facoltà psichiche (volontarie)." Since in the Galenic system, especially in its Scholastic development (see below 2.3 *A Galenic System Towards Reconciliation*) this partition will be complicated by the inclusion of the vital functions (under the aegis of the heart), I am not sure that Aristotle has been outdone once and for all: powers of the body that could be defined as semi-voluntary (e.g., respiration) make the distinction between natural and psychological functions too rigid to be univocally applied (although Galen himself considers the movements of the lungs as voluntary, see *De usu partium* VII 9; K III: 549).

regarded as part of the powers of the animal and human soul.[46] For Galen, since these operations are not exactly carried out by the individual animal, but it is the animal which is "carried" by the operations of nature, the natural faculties of both the animal and the human are somehow external to the soul, and therefore Galen prefers a different terminology.[47]

Similarly to Aristotle's position on the matter, Galen's understanding of the workings on nature shows a profound respect and awe for the marvelous architecture of the *physis*. If *De usu partium* will be the best example of what Owsei Temkin has defined a work of "natural

[46] This would moderate a bit Ballester's statement that "Galeno agota la significación del ser del hombre con la *physis* del mismo, identificando la sustancia del alma con la naturaleza del hombre, entendida ésta como pura *krasis* o complexión humoral" (*Galeno* cit., p. 133), since for the physician there are indeed diffeent levels of investigation, and the soul is not always regarded as the same as the *physis* of the human being, nor is it always interchangeable with its temperament. For the consequences of Ballester's analysis of "somatic naturalism," see chapter 3 (*All Things Natural*), pp. 201-76.

[47] We must keep in mind that Galen, with reference to the Aristotelian doctrine of change, defines the operation (ἔργον) what has been completed by an activity (ἐνέργεια), which in turn is caused by a faculty (δύναμις). Since the cause to the active movement is not in the soul of the animal (being it an operation of nature itself), the distinction is not only semantic, but also inherently logical. See *De naturalibus facultatibus* I 2 (K II: 2-7).

theology,"[48] *De facultatibus naturalibus* as well shows an intense consideration for the perfect structure of human nature. Although directly opposing Erasistratus of Ceos in his errors on the attractive faculty, Galen retorts to his opponent by using one of his very statements. According to Galen, Erasistratus denied the existence of an attractive power in the nature of the human beings, and justified the natural functions merely with the dimension of the ducts. Erasistratus's solution is apparently too "physicist" in its simplicity to Galen, who stresses the unerring providence of Nature also in the minimal functions of life:

> But let us suppose he [Erasistratus] remained true to his own statement that Nature is "artistic" [Gr. τεχνικήν, Lat. artificialem][49] – this Nature which, at the beginning, well

[48] See Owsei Temkin, "Byzantine Medicine: Tradition and Empiricism." *Dumbarton Oaks Papers* 16 (1962), pp. 95-115, p. 107: "To understand the fate of the philosopher Galen, one must keep in mind that he was made up, so to speak, of two persons: the natural theologian, the author of On the Use of Parts, and, the methodologist and logician. [...] Be that as it may, the existence of this book [*De usu partium*] and its theological significance certainly helped to promote Galenism among Neoplatonists Christians alike." On the troubled afterlife of Galen's *De usu partium* and its reception, and the complex textual tradition of *De iuvamentis membrorum* (an Arabic epitome of the longer treatise, translated into Latin but overall "incomplete and imperfect"), see Roger K. French, "*De Juvamentis Membrorum* and the Reception of Galenic Physiological Anatomy." *Isis* 70/1 (1979), pp. 96-109, and most recently Elvira Wakelnig, "Medical Knowledge as Proof of the Creator's Wisdom and the Arabic Reception of Galen's *On the Usefulness of the Parts*," in *Greek Medical Literature and Its Readers: From Hippocrates to Islam and Byzantium*, eds. P. Bouras-Vaillanatos, S. Xenophontos (London-New York: Routledge, 2018), pp. 131-149. On the 14th-century translation of the entire treatises, completed by Nicholas of Reggio in 1317, see Stéphane Berlier, "Niccolò da Reggio traducteur du *De usu partium* de Galien. Place de la traduction latine dans l'histoire du texte." *Medicina nei secoli* 25/3 (2013), pp. 957-78.

[49] MS Vat. Lat. 2375, fol. 409rb. Burgundius' rendition of τεχνικός is "artificialis" (see for instance *De complexionibus* II 6; K I: 636). On Burgundius' traductive style, see Richard J. Durling, "Burgundio of Pisa's Translation of Galen's Περὶ τῶν πεπονθότων τόπων: 'De Interioribus'." *Traditio* 42 (1986), pp. 439-42, who at p. 441 notes that "the Latin suffix *–ivus* frequently does duty for the Greek suffix –ικός, e.g.: *circumtractativus* for περισταλτικός, *urinativus* for οὐρητικός." However, adjectives in *-alis* are also common in Burgundio's traductive style. For an assessment of the meanings of *téchne*, see Margherita Isnardi Parente, *Techne: momenti del pensiero greco da Platone a Epicuro* (Florence: La Nuova Italia, 1966).

> and truly shaped and disposed all the parts of the animal, and, after carrying out this function (for she left nothing undone), brought it forward to the light of day, endowed with certain faculties necessary for its very existence, and, thereafter, gradually increased it until it reached its due size.
> (*De facultatibus animalibus* II 3; K II: 81)

Galen's conception of Nature as inherently "artistic," i.e. provided with the necessary *téchne* that allows her to dispose everything appropriately to fulfill its role for the best of the entire being, cannot but resonate with the Aristotelian principle whereby *natura nihil frustra facit*, stated at length in the corpus of the Stagirite, and hammered incessantly by Galen himself in all of his works. In the rest of the chapter, and in a fashion that echoes a similar passage that I analyzed above with respect to *De complexionibus* I 9, Galen praises Nature for being more excellent than the best of all human artists, more skillful even than Praxiteles or Pheidias, since she is able to go beyond the sheer outside of the matter, and dispose every single fiber of being for the best.[50] And even more, no statuary is able to change the matter that he is sculpting, thus leaving the marble perfectly embellished, but in actuality always the same, while Nature overcomes "the original character of any kind of matter" in her skillful workings.[51]

This communion of intents between Galen and Aristotle guides the historic assessment of the former on the latter as well, as can be seen clearly in the following passages of the same

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[50] See Galen, *De facultatibus naturalibus* II 3 (K II: 82): "[Nature] shapes and nourishes and increases them through and through, not on the outside only. For Praxiteles and Phidias and all the other statuaries used merely to decorate their material on the outside, in so far as they were able to touch it; but its inner parts they left unembellished, unwrought, unaffected by art or forethought, since they were unable to penetrate therein and to reach and handle all portions of the material. It is not so, however, with Nature."

[51] Ibid. (K II: 82-83): "Phidias, on the other hand, could not turn wax into ivory and gold, nor yet gold into wax: for each of these remains as it was at the commencement, and becomes a perfect statue simply by being clothed externally in a form and artificial shape. But Nature does not preserve the original character of any kind of matter."

treatise. Given his familiarity with the writings of Aristotle and his Peripatetic school (especially Theophrastus), Galen characterizes – as an Alfred North Whitehead ante litteram – the natural books of the Stagirite as a series of footnotes to Hippocrates.[52] Aristotle merely gave clarity and an efficient logical framework to discoveries that were already present in the writings of the Corpus Hippocraticum, so that it would be more correct, in Galen's eyes, to talk about a science that is at the same time Hippocratic and Aristotelian (*De facultatibus naturalibus* II 4; K II: 89). From the alteration of substances involving innate heat, to the creation of the humors, to the origin of diseases and their remedies, all these scientific discoveries "were correctly stated first by Hippocrates of all writers whom we know, and were in the second place correctly expounded by Aristotle" (Ibid.; K II: 88-89). Moreover, in a historical move that owes a lot to analogous passages in the writings of Aristotle, Galen delineates a brief trajectory of the transmission of philosophical knowledge, where he is by necessity the final and more complete interpreter of a long line of scientists: all these doctrines, allegedly not assimilated by Erasistratus, "emanated first from Hippocrates, secondly from Aristotle, thirdly from the Stoics" (Ibid.; K II: 92).

Aristotle's philosophy of nature has been deeply assimilated into Galen's oeuvre,[53] and especially in the philosophic-theological treatise *De usu partium*. Here the Aristotelian principle

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[52] See Galen, *De facultatibus naturalibus* II 4 (K II: 88-89): "For if anyone will make himself acquainted with the writings of Aristotle and Theophrastus, these will appear to him to consist of commentaries on the Nature-lore of Hippocrates - according to which the principles of heat, cold, dryness and moisture act upon and are acted upon by one another, the hot principle being the most active, and the cold coming next to it in power; all this was stated in the first place by Hippocrates and secondly by Aristotle."

[53] See Paul Moraux, *Der Aristotelismus bei den Griechen: von Andronikos bis Alexander von Aphrodisias*, 3 vols. (Berlin: De Gruyter, 1984), and Id., "Galen and Aristotle's *De partibus animalium*," in *Aristotle on Nature and Living Things*, ed. A. Gotthelf (Pittsburgh: Mathesis Publications, 1985), pp. 327-44.

whereby Nature does nothing without a purpose (but for Galen, it is a Hippocratic idea as well), nurtures the inner fibers of Galen's physiological and anatomic investigation, to the point that, as put by Mario Vegetti and Ivan Garofalo, the *physiologus* does nothing but recognize the rationality of the works of Nature – her deep *logos* –, to which the human *logos* is isomorphic only when correctly deployed. Therefore, the scientist of nature, as we have seen above, investigates the rational web of Nature, and identifies the weft threads by means of his own rational thought.[54]

However, as argued by Robert Hankinson, Galen's strong teleological position is even more radical than Aristotle's, who concedes liberties to the providentialism of Nature and fundamentally "does not literally believe" the oft-cited principle whereby Nature does nothing in vain.[55] As Hankinson argued in his article, there are two fundamental points of divergence between Aristotle's and Galen's teleology. On the one hand, the first mover of Aristotle's physics and metaphysics is less "personified" than the one of Galen: although the Stagirite

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[54] Ivan Garofalo and Mario Vegetti aptly discuss a "Galenic idealism" in their introduction to *L'utilità delle parti*, in *Opere scelte* cit., pp. 291-832. See in particular p. 298: "la convinzione che la natura sia organizzata secondo un *logos* provvidenziale, cui è isomorfo il *logos* umano purché correttamente usato. Ippocrate e Aristotele non hanno fatto altro che *riconoscere* tale logo e descriverlo correttamente; coloro che si rifiutano di vedere l'arte dispiegata dalla natura nella costruzione del corpo animale sono ciechi, e, peggio ancora, pazzi." See also Ballester, *Galeno* cit., p. 123.

[55] See Robert J. Hankinson, "Galen and the Best of All Possible Worlds." *The Classical Quarterly* 39/1 (1989), pp. 206-227. The article is fundamental also for a complete history of different teleological views of Nature in classical antiquity. On Galen's theology, see also Vivian Nutton, "God, Galen, and the Depaganization of Ancient Medicine," in *Religion and Medicine in the Middle Ages*, eds. P. Biller, J. Ziegler (York: Boydell and Brewer, 2001), pp. 15-32.

himself describes the movement generated by the unmoved mover a "desire" (ὄρεξις),[56] "Aristotle's God is far too intellectually self-centered [...] to waste time worrying about anything else."[57] On the other hand, there are instances in the Aristotelian biology and physiology in which nature does make some things *frustra*, as seen in the discussion about the gall-bladder and some humoral residues (*De part. an*. IV 2, 677a 15-19). Galen's own teleology radically eschews these two assumptions, by affirming the providential mind of the Demiurge in the creation of everything in nature, and the necessity of all things created for the sake of the best.[58]

If in these more general principles the divergence between Aristotle and Galen concretizes in a more radical position of the latter over the former, in terms of physiology Galen is rather vocal about the mistakes of his illustrious predecessor. As we have seen in the previous chapter, Aristotle's position on the role of the heart in the animal body underlines the fundamental functions of the organ, making it the center of sensorial perception, the principle of life, and of voluntary motion.[59] Galen however assigns the seat of movement and of sensorial

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[56] See for instance Aristotle, *Metaphysics* XII 7, especially 1072 b 14ff, where Aristotle defends the principle of desire as the core of all movement. For the importance of ὄρεξις in Aristotelian physics and the strive for the better in Nature, Gabriele Giannantoni recalls other passages of his corpus (most notably, *De an.* III 10, 433 a 13-21; *Physics* I 9, 192 a 16; *De gen. et corr*. II 10, 336 b 27). See Aristotele, *Opere*, 2 vols. (Milan: Mondadori, 2008), vol. 1, p. 1011n. On the causality of the first mover in Aristotle, see Enrico Berti, "La causalità del motore immobile secondo Aristotele." *Gregorianum* 84/2 (2002), pp. 637-54, and Id., "Ancora sulla causalità del motore immobile." *Méthexis* 20 (2007), pp. 7-28.

[57] Hankinson, "Galen and the Best of All Possible Worlds" cit., p. 213.

[58] Galen's response to Erasistratus (and Aristotle, although he is not named in this context) is to be found in *De usu partium* IV 15 (K III: 315-21).

[59] See 1.4 *A Mechanics of Sense-Perception*, pp. 48-54, and 1.5 Ut animalium pictura: *Sensation and Memory*, pp. 54-89.

perception to the brain, and distances himself from Aristotle's cardiosinew embodiment theory, in favor of a cerebroneuromuscolar position.[60] Galen's experimentations over the sensorial powers of the animal body are aimed to demonstrate the centrality of the brain function by means of the nerves, and have the consequence of debunking the positions of other physicians and philosophers who held different theories.

Already in the brief introductory treatise mentioned earlier, *Ars medica* 6 (K I: 319-24) presents an abridged description of the anatomy and function of the brain and the organs of the head, while clearly connecting the "commanding faculties" (Gr. ἡ τῶν ἡγεμονικῶν, Lat. principalium) to the cerebral area and the nerves. The brain and the cognitive faculties there administered are an indication of the good nature of the *complexio*, and the more the perceptive and cognitive faculties are responsive, the better the overall temperament of their directive principle is.[61] The physiognomic remarks of the following two chapters (*Ars medica* 7-8; K I: 324-29) make it clear that the humoral and qualitative imbalance of the brain will affect the natural faculties there contained. For instance, in the case of a brain which is hot and wet, the

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[60] I am using the terms cardiosinew theory and cerebroneuromuscolar theory as described in the comprehensive monograph by Michael Frampton, *Embodiments of Will: Anatomical and Physiological Theories of Voluntary Animal Motion from Greek Antiquity to the Latin Middle Ages, 400 B.C.-A.D. 1300* (Saarbrücken: VDM Verlag, 2008), in reference to what other historians of medicine also call the cardio-centrism of Aristotle and the encephalo-centrism of Galen. See also Paola Manuli-Mario Vegetti, *Cuore, sangue e cervello. Biologia e antropologia nel pensiero antico* (Pistoia: Petite plaisance, 2009), especially pp. 41-72, 163-210; Philip van der Eijk, *Medicine and Philosophy in Classical Antiquity: Doctors and Philosophers on Nature, Soul, Health and Disease* (Cambridge: Cambridge University Press, 2005), pp. 119-35.

[61] See Galen, *Ars medica* 6 (K I: 322): "The parts that grow from a principle [Gr. ἀπὸ τῆς ἀρχῆς, Lat. a principio], and the principle, give reciprocal indications of each other's excellence or badness. In the case of the commanding activities [Gr. τῶν ἡγεμονικῶν ἐνεργειῶν, Lat. principalium operationum virtus], however, their excellence or badness is an indication of the principle alone and in itself. What is meant by commanding activities [Gr. ἡγεμονικὰς ἐνεργείας, Lat. principales operationes] is those which arise from the principle alone."

person will "find difficulty in staying awake for long periods; but when they try to sleep they are sluggish but at the same time insomniac, and prone to vivid dreams," while their vision will be "hazy," and their overall sensorial perception "imprecise" (*Ars medica* 8; K I: 327). When instead the brain is too wet and cold, the dyscrasia will "make people sluggish and somnolent, of poor perceptions" (Ibid., K I: 329). The connection between the physiology of the brain and the sense organs that are linked to it is reiterated in the admonition to deduct the state of each organ of perception from the temperament of the brain,[62] or to expect a violent reaction in the subject if the nerves are damaged "because of the connection of this type of part [i.e. the nerves] with the principle of perception" (*Ars medica* 31; K I: 388).

By following the anatomical and physiological research of the Alexandrian physicians Herophilus and Erasistratus, Galen's dissections and vivisections uncover the connections between the sensory organs, the nerves, and the sensitive faculties of the brain.[63] As noted by Julius Rocca, to Galen the differentiation between sensory and motor nerves is material to understand the functions of the ventricular system of the brain. Each section of the organ is dedicated to a specific function, and the later branches of Galenism will develop the scarce notes of the Galenic texts into a coherent program and map of the brain.[64] As Galen explains in *De placitis Hippocratis et Platonis*, the anatomical investigation upon the living animal does not

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[62] After two chapters in which Galen had delineated each simple and compound dyscrasia, he affirms that "on the basis of these you may by extension know the diagnoses for each of the organs of sense" (*Ars medica* 8; K I: 329).

[63] See Julius Rocca, *Galen on the Brain: Anatomical Knowledge and Physiological Speculation in the Second Century AD* (Leiden: Brill, 2003), pp. 172-99.

[64] See below 2.3 *A Galenic System Towards Reconciliation*.

affect the subject until the physician reaches one of the ventricular area of the brain.[65] By underlying the effects of vivisection on the animal's sensitive and motive functions, Galen also stresses the role of the psychic pneuma (πνεῦμα ψυχικόν) – a very subtle substance that operates through either the nerves or the tendons as the material connection between the brain and both the sensory and locomotive organs – in the correct operations of the cerebral ventricles. Galen is careful in distinguishing the psychic pneuma from the actual (hegemonic) soul of the animal, albeit the distinction is immaterial for the physician. Nevertheless, his anatomical investigations showed that, since the animal does not die after the ailment of the pneuma, and since, after a period of recovery, it can also regain all of its psychic functions once the surgery was finished, "the soul's first instrument for all the sensations of the animal and for its voluntary motions is this pneuma; [...] for indeed, if pneuma itself were the substance of the soul, the animal would instantly die along with the escape of the pneuma" (*De placitis* VII 3; K V: 605-06).

Galen's polemical remarks on the nature and physiology of the brain are primarily directed to what Aristotle said in his biological books. As Galen affirms in *De usu partium*, "the supposition that the encephalon was formed for the sake of the heat in the heart, to cool it and bring it to a moderate temperament, is utterly absurd" (VIII 2; K III: 615).[66] This is exactly what Aristotle affirms in his anatomical researches, as seen for instance in *De partibus animalium*, where Aristotle says that "nature has contrived the brain as a counterpoise to the region of the

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[65] See *De placitis* VII 3 (K V: 605): "And even if you cut away the brain itself in any manner, even then the animal does not become motionless or senseless until the incision reaches one of the ventricles."

[66] See also the entire chapter 3 of the same book (K III: 620-25). English transl. Galen, *On the Usefulness of the Parts of the Body*, transl. M. T. May, 2 vols. (Ithaca, NY: Cornell University Press, 1968).

heart with its contained heat," and that the brain "tempers the heat and seething of the heart" (II 7, 652 b 15-28).[67] As we have seen in the previous chapter, for Aristotle the brain is deprived of any sensitive or cognitive faculty, and its cooling function is comparable to that of the lungs in the thorax. According to Galen, this is absurd, for the brain could not work best towards the temperament of the heart given its relative distance from the area. It would be illogical to conceive a providential Nature that assigns a specific function to an organ, and then displaces it so far away from its area of action.[68] Galen's remarks against Aristotle therefore are framed under two different perspectives, one being a pure anatomical and physiological analysis of the functions of the organs, the other being the verification of the logical tenets of the philosopher.

The anatomy of the brain is connected with the nervous system thence arising, insomuch as the nature of the organ is providentially designed by nature in accordance with its functions. By referring back to what he said in book 5 of *De placitis*, Galen reiterates that "the source of the nerves, of all sensation, and of voluntary motion is the encephalon," while "the source of the arteries and of the innate heat is the heart" (*De usu partium* VIII 4; K III: 625), thus rewriting a few of Aristotle's biological assertions on the matter. The substance of the brain is therefore not dissimilar to that of the nerves, and the main difference is one of consistency. The brain itself is harder than the nerves originating from it, but overall its substance is not the same throughout.

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[67] See also 1.4 *A Mechanics of Sense-Perception*, pp. 48-54, where I discuss other places of his natural books in which Aristotle affirms a similar idea. It is interesting to note that the balancing properties of the brain are shared by the heart as well, which in *De sensu et sensibilia* is said to be "the counterpoise of the brain" (2; 439 a 1-2).

[68] See *De usu partium* VIII 2 (K III: 615-16): "Nature would not have placed the encephalon so far from the heart. Rather, she either would have entirely surrounded the heart with it, as she has with the lung, or would at least have placed it all down in the thorax [...]. This teaching would be as much as to say that the heels were formed for the sake of the heart."

As Galen notes, "the anterior part [the cerebrum] is softer than the remaining hard part [the cerebellum" (*De usu partium* VIII 6; K III: 637). This difference in consistency is material to the different functions there administered. Since a certain degree of malleability is necessary for sensorial perception to take place,[69] the principle of the most tender nerves is in the brain. These are connected to the sensorial organs and transmit the perceptive images via the psychic pneuma to the internal chambers of the brain (the ventricles). The tenderness of the sensitive nerves is pivotal to the passive role of sensation, while the much harder nature of the motor nerves depends on their active function to the motive faculty of the animal. These latter nerves are therefore responsible for the motion of the parts of the body.[70]

According to Galen, the ventricular structure of the brain is functional to the collection and administration of sense images through the power of cognition. The subtle substance of the psychic pneuma flows through the different cells of the brain, and the phrasing used by Galen in explaining its motion is not dissimilar to that of the digestive process. Although Galen himself is not categorical in the precise individuation of the different ventricles of the brain, his main divisions will become the starting point for the medical philosophy of later Galenism.[71] The anterior part of the brain collects the perceptive images of the senses through its main cells, and

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[69] A point that Aristotle himself had stressed in his physiology of sense perception, see 1.4 *A Mechanics of Sense-Perception*, pp. 48-54.

[70] See the analysis of the different couples of nerves that originate in the cerebral area in *De usu partium* IX 8-14 (K III: 712-43).

[71] See Harry A. Wolfson, "The Internal Senses in Latin, Arabic, and Hebrew Philosophic Texts." *Harvard Theological Review* 28 (1935), pp. 69-133; E. Ruth Harvey, *The Inward Wits: Psychological Theory in the Middle Ages and the Renaissance* (London: The Warburg Institute, 1975); Rocca, *Galen on the Brain* cit., pp. 245-48.

gathers them in one single chamber that has a function similar to the common sensorium analyzed by Aristotle in his physiology books. The channel connecting the anterior ventricles to the middle part of the brain and thus to the posterior part of the cerebral area (the cerebellum) plays a pivotal role in processing the sense-images coming from the sense organs. The middle ventricle is separated from the harder substance of the cerebellum by a fold of the meninx, and the connection between the middle area of the brain and the posterior section of the cerebellum is regulated by the pineal gland (with the decisive contribution of the *epiphysis vermiformis*, that Galen regards as a different organ from the pineal gland),[72] whose function is similar to that of the pylorus in the stomach. The description of the pineal gland is therefore informed by the lexical wording of the stomach organ,[73] since Galen compares the functions of the pineal gland to those of "a guardian and housekeeper [...], regulating the quantity [of pneuma] that is transmitted" (*De usu partium* VIII 14; K III: 675).[74] The flux of the psychic pneuma to the internal regions of the brain is what constitutes the physiological process of sense-perception and cognition according to the physician.

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[72] See *De usu partium* VIII 14 (K III: 674): "The notion that the pineal body is what regulated the passage of the pneuma is the opinion of those who are ignorant of the action of the vermiform epiphysis." Galen goes at length in describing the anatomy and function of the epiphysis in the following pages (K III: 674-83).

[73] Gr. πυλωρός means at the same time "pylorus" and "gate-keeper," since it is formed after Gr. πύλη, "gates (of a town)," "entrance."

[74] See *De usu partium* VIII 14 (K III: 675): "Some think [...] that this gland, the pineal body, standing at the beginning of the canal that transmits the pneuma from the middle [third] ventricle to the one in the *parencephalis* [the fourth ventricle] is a guardian [φύλακά τινα] and housekeeper [οἷον ταμίαν], as it were, regulating the quantity that is transmitted."

The nature and substance of the pneuma, and of the psychic pneuma to be even more precise, is a debated issue in Galenic studies. Although a clear-cut definition, distribution, and tripartition of the different kinds of pneumata will be developed in a symmetrical system only thanks to the developments of later Galenism,[75] the origin and the function of the psychic pneuma is a central question in Galen's oeuvre. In his description of the digestive process of the pneuma in book 7 of the *De usu partium*, Galen notes that the external air that is taken in during respiration is developed into a more refined form of pneuma by the combined action of the lungs, the heart, and the arteries. The slow process that makes possible the formation of this pneuma (called vital pneuma [πνεῦμα ζωτικόν]), to be distributed to the rest of the vital functions of the body, is assimilated once again to the digestive process, in order to refine it to the point of resemblance to the innate pneuma of the animal.[76] The "digestion of the air," as it were, plays a similar role to the analogous "digestion of the food": if the latter will end with the creation of fresh blood for the animal body, the former is dedicated to the refinement of this new vital pneuma.[77]

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[75] See Owsei Temkin, "On Galen's Pneumatology." *Gesnerus. Swiss Journal of the History of Medicine and Sciences* 8 (1951), pp. 180-89, and here below 2.3 *A Galenic System Towards Reconciliation*.

[76] See *De usu partium* VII 8 (K III: 540): "it is reasonable that the outer air does not become the nutriment of the pneuma in the animal's body suddenly and all at once; rather, it is altered gradually, just as the food is too, and over a period of time acquired the quality proper to the innate pneuma, the principal instrument of this alteration being the flesh of the lung, just as I have shown the flesh of the liver to be responsible for changing the nutriment into blood."

[77] See *De usu partium* VII 8 (K III: 539-40): "the flesh of the lung appears light and full of air, showing plainly that it was made to concoct [πέψιν] the air, just as the flesh of the liver was made to concoct the nutriment." Galen also distinguishes between a primary function of respiration, which is the conservation of innate heat, and a secondary function, which is the nutrition of psychic pneuma in the process I have just delineated (*De usu partium* VII 9; K III: 544).

Once the first stages of digestion take place in the thoracic area and in the arteries, the arterial blood, full of pneuma, transports it to the cerebral region, where through the retiform plexus it can receive a second degree of refinement and digestion. The reticular structure of the retiform plexus, which has been described as a "fascinating mythological organ" since it haunted anatomists for centuries,[78] is the perfect place in which the arterial blood coming from the first digestions can slow its flow and take its time to be refined once more. Galen describes it as a series of fishing nets all stuck onto one another, in order to render the complex intricacy of its structure.[79] As for similar parts that can be found in the animal body, the convolutions of the retiform plexus are devised by Nature for the perfect digestion of the vital pneuma, and its transformation into psychic pneuma.[80] Through the arterial vasculature of the brain, the

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[78] Allegedly located at the basis of the brain, the reticular plexus (also known as *rete mirabile* by the anatomists) is a vascular structure that can be found in some mammals but that is not present in the human body. Galen transferred his anatomical assumption based on larger mammals onto the human anatomy, and the authority of his works made it a staple in the medical works of the later centuries up until Andrea Vesalius. See Rocca, *Galen on the Brain* cit., pp. 249-53. The description in quote marks is cited by Rocca from Carlos Guillermo De Gutiérrez-Mahoney-Mannie M. Schechter, "The Myth of the *Rete Mirabile* in Man." *Neuroradiology* 4 (1972), pp. 141-58, at p. 141, which reveals also that "the collaterals between the external and internal carotid systems" in humans have no anatomical similarities to the *rete mirabile* found in other mammals (p. 157).

[79] See *De usu partium* IX 4 (K III: 697): "It is not a simple network but [looks] as if you had taken several fisherman's nets [τὰ δίκτυα τῶν ἁλιέων] and superimposed them."

[80] See *De usu partium* IX 4 (K III: 699): "wherever Nature wishes material to be completely elaborated, she arranges for it to spend a long time in the instruments concocting it." Galen parallels the circulation of arterial blood in the retiform plexus to the similar convolutions in the liver for the formation of blood, and those of the testicles in which the purest part of the blood is transformed into semen. For the derivation of the psychic pneuma from the vital pneuma, see *De usu partium* IX 4 (K III: 700): "the vital pneuma [το ζωτικὸν] passing up through the arteries is used as the proper material [ὕλην οἰκείαν] for the generation of psychic pneuma [τοῦ κατὰ τὸν ἐγκέφαλον πνεύματος ψυχικοῦ] in the encephalon."

ventricles receive the pneuma and refine it once more in their chambers, so that it can become the purest form of psychic pneuma designated to the cognitive functions of the human body. Galen assigns beyond all doubt the operations of the rational soul to the physiological movements of the psychic pneuma. By referring back to what he said in *De placitis*, Galen reiterates that "the rational soul is lodged in the encephalon [τὴν λογιστικὴν ψυχὴν οἰκεῖν ἐν ἐγκεφάλῳ]; that this is the part with which we reason; that a very large quantity of psychic pneuma is contained in it; and that this pneuma acquires its own special quality from elaboration in the encephalon" (*De usu partium* IX 4; K III: 700). The brain is thus the primary organ devoted to the psychic function and the cognitive powers of the human, and although the material substance of the soul cannot be defined by the physician, its workings must be assigned to the physiology of the cerebral area.

The radical differences between Aristotle's physiology of the human mind and Galen's primacy of the cerebral functions are mirrored in their diverse approach to the structure and powers of the human soul. If, in terms of physiology of perception, an Aristotelian trace can still be found in Galen's account, his system of the human soul has a clear Platonic framework, whereby there are three main powers of the soul: a rational soul (το λογιστικόν), an irascible soul (το θυμικόν), a desiderative soul (το ἐπιθυμητικόν),[81] and another that "arises from their relation to each other" (*De placitis* VII 1; K V: 593-94). These powers of the soul are symmetrically assigned to the different principle organs of the human body: as we have seen already, the rational part of the human soul is administered in the brain, while the irascible soul is in the heart, and the desiderative in the liver (*De usu partium* VI 18; K III: 501). The administration of

[81] The reference is to Plato's *Timaeus*, 69a-70d. See below 2.3.1 *The Physicians*, for an account of the issue.

their respective faculties is possible thanks to the operation of the nerves that are present in such organs, and the communication of these organs is necessary for the communication of the respective faculties alike.[82]

In this respect, the psychological tripartition of Aristotle's account (vegetative, sensitive, rational), which leans towards a systematic hierarchization of the different powers of the soul, is juxtaposed to a more horizontal and diversified theorization. As we have seen above, Galen does not regard the vegetative faculty as a distinctive power of the soul, but rather as the working of nature in the animal body (*De naturalibus facultatibus* I 1; K II: 1). Moreover, Aristotle's belief in primacy of the rational faculty in the human beings and his complex relationship between the different parts of the intellect is substituted by a more physical account of the cognitive powers of the animals (whether they be human or not) in Galen: the rational soul (το λογιστικόν) is not entirely the same as the rational soul of the Aristotelian system, since the powers of sensation administered via the psychic pneuma are shared by humans and animals alike.[83] Therefore, the

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[82] See *De usu partium* VI 18 (K III: 501): "I have shown in my book *On the Teaching of Hippocrates and Plato* [*De placitis* VII 3] that these sources must give heed to one another, be connected to some extent, and communicate with one another." I believe this account is heavily influenced by Timaeus's speech in Plato's treatise, whereby the different parts of the soul are indeed separated, but nonetheless they operate a control or a resistance over each other: for instance, the heart listens to the reason, which exhorts and advises it, while the desiderative soul is bound under the diaphragm like a wild beast, and yet it operates its necessary nutritive powers over the rest of the body. A philosophical account on the possibility of communication and control of the different parts of the soul, and the relation between reason and nature will be investigated in chapter 3 (*All Things Natural*), pp. 201-76.

[83] Galen seems to waver between a tripartite scheme of powers of the soul, and another system in which the main distinction lays on voluntary (or psychic) activities, and natural functions. The juxtaposition of soul and nature is therefore not easily reconciled with the rest of Galen's assertions on the matter. See Mark Schiefsky, "Galen and the Tripartite Soul," in *Plato and the Divided Self*, eds. R. Barney, Tad Brennan, C. Brittain (Cambridge: Cambridge University Press, 2012), pp. 331-349, especially pp. 332-33.

rational soul, as intended by Galen, cannot be the sole prerogative of the human soul, but it is the psychological response to the physiology of sensation and the movements of the psychic pneuma. This is one of the main striking factors in the differences between Galen's and Aristotle's psychological systems; it will be somewhat productive in the later debates within Galenism, which I will discuss in the following pages.

2.3 A Galenic System Towards Reconciliation

As noted by Owsei Temkin in a short but influential article of some decades ago, Galen's divergent opinions are part of his particular style of scientific debate, where the precision of the attack of the opponent carries the weight of the emphasis he wishes to make. When the bulk of Galenic medicine and science was received by the later commentators of the Alexandrian schools, and then by the Syrian and Arabic physicians, it was "necessary to simplify and concentrate the older doctrines," in order to produce and develop a coherent system at the use of the medical profession.[84] Therefore, later commentators who were faced with the challenge of defining this system had to deal also with a tentative "reconciliation," which, "if attempted, needs elaborate interpretation."[85] In this section, I will propose a reading of the Galenic sources and their Medieval reception with a focus on the relationship between heart and brain. By

[84] Temkin, "On Galen's Pneumatology" cit., p. 189.

[85] Ibid., p. 189. Temkin parallels this reconciliation with the analogous development in Alexandrian philosophy, especially for the reception of Aristotle. See Owsei Temkin, *Geschichte des Hippokratismus im ausgehenden Altertum* (Leipzig: G. Thieme, 1932), p. 43. The reconciliation of medicine and philosophy (and *par contre*, of Aristotle and Galen) becomes a staple subject during the academic debates of the 13th century, and especially in the school of Taddeo, see Nancy Siraisi, *Taddeo Alderotti and His Pupils. Two Generations of Italian Medical Learning* (Princeton: Princeton University Press, 1981), pp. 147-202. However, I have showed in chapter one how these debates are already present in the literary circles of the Sicilian school.

composing a system in which different parts are located in different organs, the physiological understanding of the cognitive faculties of the human furthers a more nuanced understanding of the functions of the mind and the heart. Alongside this productive dichotomy, the division of different faculties also brings forth the question of communication between the powers. As I will show in both Galen and his later commentators, these debates are not without consequences for the Italian poets of the 13th century, who, outside of the Sicilian school, tend to prefer a much more nuanced cerebral and cardiac system, and show a desire to articulate the dialogue between the bodily and psychological parts in innovative poetical tropes.

2.3.1. The Physicians

The relationship between cerebral faculties and cardiac powers is a fertile ground of debate for the physiological system of Galenic medicine. As we have seen in the previous section, Galen's tripartite model contrasts the Aristotelian concentration of the faculties in the heart. Galen states his allegiance to Plato's doctrine of the soul in *De placitis*, where he provides a physiological and anatomical support to the philosophical investigation of both *Timaeus* and *Republic*. Galen differentiates the opposing stances of the soul in a tripartite division of the psychological and physiological activities administered in the body.[86] He therefore assigns the different parts of the soul, derived from Plato's psychology, to the primary organs, with much more precision that his predecessor:[87] the rational faculty is located in the brain; the irascible

[86] See Schiefsky, "Galen and the Tripartite Soul" cit., who accounts for the opposing motivations and the bodily functions as analyzed by Galen in *De placitis*.

[87] Schiefsky in the article cited above (p. 341n), notes that Galen uses prepositions with more precision than Plato when it comes to the localization of the different powers. For instance, when accounting for the place of the appetitive power, while Plato says that is to be found "around the liver" (περὶ τὸ ἧπαρ), Galen affirms that is "in the liver" (κατὰ τὸ ἧπαρ).

soul in the heart; and the appetitive in the liver. For Plato, the rational soul is considered divine in nature, while the irascible and the appetitive are responsible respectively for the achievement of honor and victory through the noble passions of the heart, and the enjoyment of bodily pleasures, related to the vegetative and generative powers of the liver.[88] Galen reworks this system by providing it with anatomical and physiological consistency, and he separates the functions of the rational soul from the other two, which "have to do with the feelings (παθητικά)" (*De placitis* IX.9.7-10).

While this entire tripartition has been subject to investigation and interpretation, I argue that the most interesting feature of Galen's reception of Plato is the allusive language to describe the connection between these faculties. As noted above, Galen assigns to the nerves the task of communicating between the organs and their faculties (*De usu partium* VI 18; K III: 501). By affirming that "these sources must give heed (ἐπαΐεν) to one another, be connected (συνῆφθαι) to some extent, and communicate (κοινωνεῖν) with one another," Galen is stressing a point only vaguely proposed by Plato in his *Timaeus*, where in very similar language Plato affirms that both irascible and appetitive faculties must be listening to the appeal of reason (ἵνα τοῦ λόγου κατήκοον ὂν), and in conjunction therewith (κοινῇ μετ' ἐκείνου), and that these two lower faculties need to be joined together (συνημμένον) in order to provide advancement for the whole

[88] See G.R.F. Ferrari, "The Three-Part Soul," in *The Cambridge Companion to Plato's* Republic, ed. G.R.F. Ferrari (Cambridge: Cambridge University Press, 2007), pp. 165-201; Hendrik Lorenz, "The Analysis of the Soul in Plato's Republic," in *The Blackwell Guide to Plato's* Republic, ed. G. Santas (Malden, MA, Oxford: Blackwell, 2006), pp. 146-165.

subject (*Timaeus* 70A 4-6, 70E 3-5).[89] In this way, Galen is pointing to his model for an understanding of the communicative powers between faculties.

This connection is indeed necessary for the control administered from the rational part over the other two faculties. Yet as Schiefsky points out, besides assigning this function to the nerves and the fluxus of pneumata, Galen is scarce in details on the actual process of communication between the faculties. When later commentators had to come to terms with the systematization of Galenic science, they had to elaborate a doctrine that could bridge the gap over the obscure points of Galen's writing, while providing tangible access to the physicians for everyday practice. A solution to this issue has been provided by the *Isagoge* of Johannitius, one of the main sources of Medieval medicine, and one of the texts that most received commentaries and glosses from its first introduction in the *Articella*.[90] The *Isagoge* is a short introduction to the main divisions in medicine as expounded by Galen in his *Ars medica*. Assembled probably

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[89] The lexical reprise is even more striking when the verbs are contrasted directly: Galen has ἐπαίω, "to give ear" where Plato has κατήκουω, "to hear and obey;" Galen has συνῆφθαι where Plato has συνημμένον, both voices of the verb συνάπτω, "to join together, to connect;" Galen has κοινωνέω where Plato has κοινῇ, both derived from κοινός, "common."

[90] It is not possible to even attempt an exhaustive bibliography on the *Isagoge*, nor on its relationship with the *Articella*. See at least Danielle Jacquart, "A l'aube de la renaissance médical des XIe-XIIe siècles: L'«Isagoge Johannitii» et son traducteur." *Bibliothèque de l'école des Chartres* 144 (1986), pp. 209-40, for a comprehensive assessment on the history of the text, and its relationship with the Arabic source, the *Masā'il fi ṭ-Ṭibb*, by Ḥunain ibn-Isḥaq. Ḥunain's role in the *translatio studii* of the 'Abbāsid caliphate in Baghdad has been extensively analyzed by Dimitri Gutas, *Greek Thought, Arabic Culture: The Graeco-Arabic Translation Movement in Baghdad and Early 'Abbāsid Society (2nd-4th/8th-10th c.)* (London-New York: Routledge, 1998). On the constitution of the *Articella*, and the introduction of the *Isagoge* in the collection, Paul Oskar Kristeller, *Studi sulla scuola medica salernitana* (Naples: Istituto Italiano per gli Studi Filosofici, 1986) is still the starting point. A critical edition of the *Isagoge* is still lacking. Quotations in the chapter are from the "working edition" Gregor Maurach, "Johannicius: Isagoge ad Techne Galieni." *Sudhoffs Archiv* 62 (1978), pp. 148-74, hereafter simply *Johannicii Isagoge*.

towards the end of the 11th century[91] from a series of extracts translated from Ḥunain ibn-Isḥāq's *Masā'il fi ṭ-Ṭibb*, an Arabic medical encyclopedia of the 9th century, the *Isagoge* received commentaries from the scholars of the School of Chartres and from the physicians of the Salernitan school, before becoming an essential part of the medical curriculum of the university throughout Europe.

In a series of short paragraphs, the *Isagoge* provides a series of essential textbook definitions of the principal aspects of both theoretical and practical medicine. By systematizing Galen's tripartition of the soul and localization of the virtues in the specific primary organs, with the symmetrical differentiation of the pneumata, the *Isagoge* provides medieval physicians with a clearer picture of the practical connection between faculties, and by means of the pneumata, with an understanding of how the faculties are able to communicate with specific virtues and organs.

The *Isagoge* draws a perfect parallel between the pneumata and the faculties administered through the spirits in the chapter titled *De spiritu*, where the tripartition states a serial order from the lowest to the highest forms of pneumata in the human body. The first spirit to be named is the natural spirit (*spiritus naturalis*), originating from the liver (*ab epate*), and administered through the veins (*in venas*); the second is the vital spirit (*spiritus vitalis*), originating from the heart (*a corde*), and administered through the arteries (*in arterias*); the third is the psychic spirit (*spiritus animalis*), originating from the brain (*a cerebro*), and administered through the nerves (*in*

[91] The oldest manuscripts of the text (albeit incomplete) are both probably from Southern Italy, both in Beneventan minuscule datable to the end of the 11th century: Monte Cassino, Archivio della Badia, MS 225, text at ff. 129-146; Paris, Bibliothèque Nationale de France, MS Lat. nouv. acq. 1628, text at ff. 19r-26v. Both manuscripts are described in Cesare Beccaria, *I codici di medicina del periodo presalernitano (secoli IX, X, XI)* (Rome: Edizioni di Storia e Letteratura, 1956), pp. 303-05, 181.

nervos).[92] This tripartition is clearly indebted to Galen's pneumatology for what concerns the vital and psychic pneumata (respectively πνεῦμα ζωτικόν and ψυχικόν), discussed quite a length in his writings. Based on the vague references to a natural spirit (πνεῦμα φυσικόν) located in the liver, the *Isagoge* adds this third pneuma for coherence and symmetry in the system.[93]

The different kinds of pneumata are thus parallel to the tripartite divisions of the virtues in the human body, discussed in chapters §§ 12-15. The natural virtue (*virtus naturalis*) is dedicated to the administration of both nutrition and generation, by means of the natural powers also described by Galen in *De naturalibus facultatibus*.[94] The spiritual virtue (*virtus spiritualis*), through the control of the arterial pulse (hence the explicit reference to the presence of vital spirit and innate heat), is dedicated to the control of emotions and passions.[95] The psychic virtue (*virtus animalis*) is lastly responsible for the cognitive faculties (*fantasia*, *cogitatio/ratio*, *memoria*), the voluntary motion of muscles and tendons (*movet volontario motu*), and the external senses (*virtus sensibilis*).[96] If we compare this scheme with the parallel analysis of Galen's *De placitis*, we see that, while the psychic virtue and the spiritual virtue seem respectively pretty close to the cerebral and cardiac faculties investigated therein, the natural faculty is not really the same as the power seated in the liver, which "has as its work all the

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[92] *Johannicii Isagoge*, § 17 *De spiritu*, p. 155; my translations here and elsewhere.

[93] Temkin, "On Galen's Pneumatology" cit., p. 182, notes that the only passage in which Galen mentions a natural spirit located in the liver is from *Methodus medendi* XII 5 (K 10: 839).

[94] *Johannicii Isagoge*, §§ 12-13 *De virtutibus*, p. 153.

[95] Ibid., § 14 *De virtute spirituali*, p. 154.

[96] Ibid., § 15 *De virtute animali*, p. 154.

things that have to do with nutrition in the animal," but it is also responsible for "the enjoyment of pleasures" (*De placitis* VII 3; K V: 600-01). This shift seems to prefer the assignment of natural pleasures to the pursuit of the passions and desires of the heart, in a gesture that will be fully explored also in the literature of the 13th century.[97]

In terms of fully fledged reconciliation, this division loosely resembles also the Aristotelian definition of the different faculties of the soul as described in *De anima*, where the nutritive and generative powers are subsumed under the natural virtues, the appetitive and deliberative powers are closely related to both the spiritual and (some of) the cognitive faculties, while the higher intellectual and sensitive powers are enclosed in the psychic faculty of the brain. In the *Isagoge*, we have thus a systematization of Galen's physiological and psychological research, but also a tentative seed of coherence that tries to balance the input from different sources, from the Platonic to the Aristotelian materials. The chapters on the pneumata and the virtues as described in the *Isagoge* therefore open a discussion of the tripartition of the human faculties and primary organs that creates a productive dichotomy for the nuances between the powers of both heart and mind, while also proposing a tentative solution to the problems that arise from the communication between powers. As we shall see in the following pages, these debates are not foreign to the poetry of the 13th century, which will investigate in its tropes the folds of heart and mind, while also debating on the poetical staging of the communication among different parts of the soul.

[97] I believe that this confusion might have a Platonic trace beneath it, since in Plato's *Timaeus* (69D 4-5) the irascible soul, located in the heart, is also mixed with unreasonable sensation and love (αἰσθήσει δὲ ἀλόγῳ καὶ ἐπιχειρητῇ παντὸς ἔρωτι).

2.3.2. The Poets

The poetry of the so-called Sicilian-Tuscans presents a series of interesting interventions upon the physiological model analyzed in the previous chapter. These authors, while maintaining forms and style in continuity with the Sicilian poets of the Staufen court, are nevertheless active in Tuscany, and do not have a direct engagement with the court. In these Sicilian-Tuscans, we can trace a tendency to innovate a new set of features around the cluster of words referring to the cognitive faculties, and to propose a new perspective on the functions of the heart. Both these features are not extraneous to the elaboration of Galenism.

A clear example of this tendency is the centrality given to the word *mente* ["mind"], especially when contrasted with the uses within the Sicilian tradition. In the Sicilian poets, the prevalent use seems to be in clusters with transitive verbs like *tenere/mettere/porre*, all with a meaning similar to "to look (attentively)," as in Giacomo da Lentini and others.[98] The meaning of *mente* serves therefore as a reinforcement for the sensorial action of seeing, that brings forth an image to the eyes of the mind. In contrast with this use, another meaning of *mente* is much more generic, and covers a semantic area similar to Lat. *animus*, "mind, soul,"[99] even with

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[98] See for instance: *tenere mente*, as in Giacomo da Lentini, *Meravigliosa·mente* [1.2], v. 4, "Com'omo che ten mente" [as one who looks attentively]; *Guiderdone aspetto avere* [1.3], v. 51, "quando voi tegno mente" [when I look at you]; *Amor non vole ch'io clami* [1.4], v. 14, "ch'ogni viso tene mente" [that looks every move]; *porre mente*, as in *Amando lungiamente* [1.12], v. 38, "ponete mente a voi" [look at yourself]; *mettere mente*, as in Piero della Vigna, *Uno piagente sguardo* [10.2], v. 25, "non avea miso mente" [I did not see]. We must notice that this verb of seeing has often a sense of awareness and realization, similarly to English "to see."

[99] See Charlton T. Lewis-Charles Short, *A Latin Dictionary* (Oxford: Clarendon Press, 1879), s.v. "animus." In his commentary to *Uno disïo d'amore sovente* [1.11] (p. 242-43), Antonelli paraphrases *mente* as "animo" [mind], with the same general sense as in Andreas Capellanus' *De amore* (I i 1), and Dante's *Convivio* (IV xv 11).

mnemonic connotations.[100] These two meanings show that the word *mente* has a restricted function in the language of the Sicilian school, and it rarely goes beyond a very generic or ancillary sense.[101]

A shift in paradigm is even more noticeable when we see the centrality that this word will have in the poetry of the second half of the 13th century. As a matter of fact, *mente* will be the first of the targeted words that Onesto da Bologna uses in his polemic sonnet *«Mente» ed «umìle» e più di mille sporte*[102] to identify the new poetical style of the Stilnovisti. With a heavy dose of mockery, the Bolognese poet depicts a stereotypical impression of the Stilnovists. He aligns their love for the word *mente* with their constant appeal to humility (because of the divine elevation of the lady), with the use of a plethora of spirits to account for cognitive and sensorial faculties ("e più di mille sporte / piene di «spiriti»," vv. 1-2), and with the dreamlike quality of

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[100] See for instance: Giacomo da Lentini, *Uno disïo d'amore sovente* [1.11], v. 2, "mi ten la mente" [it absorbs my mind]; *Poi no mi val merzé* [1.16], v. 42-43, "e fami star sovente / la mente d'amoroso pensamento" [and it often absorbs my mind with thoughts of love]; Guido delle Colonne, *Gioiosamente canto* [4.2], v. 39, "ristrinse la mia mente" [it forced my mind]. For a connotation of "memory," see Tommaso di Sasso, *D'amoroso paese* [3.2], v. 10, "uscito m'è di mente" [I forgot]; Ruggerone da Palermo, *Oi lasso! non pensai* [15.1], v. 18, "m'escono di mente" [I forget them]; Cielo d'Alcamo, *Rosa fresca aulentisima* [16.1], v. 113, "ch'entrata mi sè 'n mente" [that you entered my mind/memory].

[101] For other groundbreaking investigations on the physical localization of rationality, and the persistence of Galenic thought in Dante's *Commedia* with respect to his scientific understanding of the human brain, see Paola Ureni-Vittorio Bartoli, "Sonno e 'animi deliquium' nel viaggio ultraterreno di Dante." *Studi danteschi* 49 (2004), pp. 211-29; Paola Ureni, "Human Generation, Poetic Creation and Memoru: from the *Purgatorio* to the *Paradiso*." *Quaderni d'Italianistica* 21/2 (2010), pp. 9-35; Ead., "Lo 'stupor mentis' a occhi aperti di Vanni Fucci (*If.* XXIV 97-118). Filigrane mediche e scritturali." *Dante. Rivista internazionale di studi su Dante Alighieri* 12 (2015), pp. 55-67.

[102] *Le rime di Onesto da Bologna*, ed. S. Orlando (Florence: Sansoni, 1974). All references are from this edition.

their images ("l'andar sognando," v. 2). The impression given by Onesto is contrasted with the style of their predecessors, especially those traditional Sicilian-Tuscans of the previous poetical generation that the Stilnovists are trying to overcome. However pointed Onesto's comment appears, the sonnet in fact glides over the nuanced meanings that the word *mente* already has in the poetry of his Sicilian-Tuscan models, and in the physiological paradigms to which their uses refer.

If we look at the poetry of Onesto's literary models, we notice the tendency to investigate the relationships between mind and heart. A good example of the productive dichotomy between the different voices internal to the human soul is given by the anonymous canzonetta *La mia amorosa mente* [25.17]. This poem has been transmitted anonymously in the manuscript tradition, and it is generally ascribed either to a Sicilian or a Sicilian-Tuscan author.[103] In the Vatican manuscript, the canzonetta is placed at the end of the twelfth quire, which opens with a series of canzoni by Chiaro Davanzati,[104] and, as is common practice for the collector of the Vatican manuscript, it closes with a series of anonymous poems. As Roberto Antonelli argues, although the scribe of the Vatican manuscript shows a high degree of historiographical design regarding the anonymous poems placed at the end of the quires, what precedes them in the folios

[103] See the excellent commentary in Paolo Gresti, "La canzone anonima «La mia amorosa mente»," in *«Parlar l'idioma soave». Studi di filologia, letteratura e storia della lingua offerti a Gianni A. Papini*, ed. M. Pedroni (Novara: Interlinea, 2003), pp. 37-48, on which I base my analysis. See also the commentary by Mario Pagano and Margherita Spampinato Beretta in *Poeti della corte di Federico II* cit., pp. 935-42, whose edition I cite.

[104] The tenth and eleventh quires are also dedicated to the poems of Chiaro.

has no significance in terms of topographical or chronological placement.[105] Therefore, even if placed in a quire dedicated to Chiaro Davanzati, it does not necessarily follow that our canzonetta is from a Florentine poet as well. In the Palatino manuscript [P = former MS Palatino 418, now Florence, Biblioteca Nazionale Centrale, MS Banco Rari 217], the poem is placed within the sixth quire, dedicated to Tuscan poets of non-Florentine origins: the likes of Bonagiunta Orbicciani da Lucca, Pucciandone da Pisa, Arrigo Baldonasco (maybe from Lucca as well),[106] and Fredi da Lucca.[107] Although not strictly probative, on these bases Paolo Gresti argues for a non-Sicilian authorship of the poem.[108] Gresti also highlights some linguistic features in the poem that cannot be of Sicilian origins, like the rhyme *sentóre*:*còre* in the fifth stanza. As noted in the previous chapter, rhymes between closed and open *o* (therefore deriving from Lat. Ō and Ŏ in tonic position) are a specific type of Sicilian rhyme (rmsic2), and therefore

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[105] See Roberto Antonelli, "La tradizione manoscritta e la formazione del canone," in *Dai Siciliani ai Siculo-toscani. Lingua, metro, stile. Per la definizione del canone*. Atti del convegno (Lecce, 21-23 aprile 1998), eds. R. Coluccia, R. Gualdo (Galatina: Congedo, 1999), pp. 7-28; Id., "Struttura materiale e disegno storiografico del canzoniere vaticano," in *I canzonieri della lirica italiana delle origini*, ed. L. Leonardi, 4 vols. (Tavarnuzze: SISMEL-Edizioni del Galluzzo, 2000-2001), vol. IV: *Studi critici*, pp. 3-23.

[106] See Marco Berisso's *cappello introduttivo* to Arrigo's poems in *Poeti siculo-toscani* cit., p. 574.

[107] See Gresti, "La canzone anonima" cit., p. 40n. On the design of the Palatino manuscript, see Antonelli, "La tradizione manoscritta" cit.; Giancarlo Savino, "Il canzoniere palatino: una raccolta disordinata?," in *I canzonieri della lirica italiana* cit., vol. IV, pp. 301-15.

[108] Although included among the anonymous Sicilians by Spampinato Beretta and Pagano in *Poeti della corte di Federico II* cit., the editors identify a series of *loci* that could be used to argue for a Tuscan author. Margherita Spampinato Beretta, "Tra 'Siciliani' e 'Siculo-toscani': casi-limite di incerta collocazione," in *Dai Siciliani ai Siculo-toscani* cit., pp. 107-19, proposes a Tuscan origin.

are indeed possible in a Sicilian linguistic setting as well.[109] Albeit lacking some definitive evidence, I tend to agree with Gresti and Spampinato Beretta in ascribing the poem to a Sicilian-Tuscan author rather than to a Sicilian poet,[110] due to the stylistic modes analyzed in the course of these pages.

The incipit of the poem is surprisingly similar to many Stilnovistic (but also Sicilian-Tuscan) modes,[111] in which the mind of the subject is engrossed with the effects of love. The power of love is described in the first, introductory stanza as a tantalizing force that absorbs all the internal faculties of the subject, whose "amorosa mente" ["mind in love," v. 1] is both linked to sensitive faculties ("sente," in rhyme with "mente," v. 2), but also to the higher intellectual activities ("pensare," v. 3) of the mind. Without stretching the line too thinly, in the first stanza, the desiderative power of the mind in love is connoted as a bridge between the perceptive faculties of the subject, and the higher cognitive powers of thought, in a move that is not dissimilar to some physiological debates analyzed in the previous section.

The following stanza brings the action into motion, by describing the lyric subject as engrossed by thoughts of love. His "amoroso talento" ("desire of love," v. 13) is the result of both "desire" ("disio") and "thought" ("pensamento," v. 12), thus stating the same link between desiderative and rational faculties of the previous stanza, in a phenomenological trajectory

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[109] Thus Spampinato Beretta and Pagano in their commentary *ad locum*, p. 942. See also 1.2 *De-Gallicizing Giacomo's* cera, pp. 26-36, especially pp. 30-33.

[110] See Gresti, "La canzone anonima" cit., p. 40.

[111] Spampinato Beretta and Pagano (p. 937 *ad locum*) refer to Dante, *Io sento sì d'Amor*, v. 69, "l'amorosa mente" [my mind in love]. Gresti (p. 42 *ad locum*) brings even more references, as in Guittone's incipit *La dolorosa mente ched eo porto*, Dante's *La dispietata mente*, until Boccaccio, both in poetry and prose.

already used in Giacomo da Lentini's tenzone with Iacopo Mostacci and Piero della Vigna, and derived possibly from Andreas Capellanus' *De amore*. Much more interesting, in the second stanza we see a first split in the consciousness of the lyric subject, who does not limit himself to referring to his mind in love, but stages his own internal faculty as a separate dramatic figure.[112] Therefore, the mind is depicted as a separate entity that dialogues with the lyric voice of the subject, and commands him to go seek the beauties of his lady. Moreover, by characterizing this particular function of his interiority in such a way, the poet is stating that his *mente* is not only the repository of his sensorial perception (in a manner analogous to the heart of the Sicilian tradition), but that he is presenting it as an active agent of his cognitive faculties that maintain independent processes even when the subject is asleep. As a matter of fact, the mind is apparently so separated from the sensorial perception at rest in sleep, that it wakes the poet up and speaks ("Risvegliami la mente, / e dicemi," vv. 17-18).

This split functionality is possible because of the psychological condition stated at the beginning of the canzonetta. The poet's mind is in love, and therefore subject to the same phenomenology described by both physicians and poets, as we will soon see with Guinizzelli.[113] This phenomenology of lovesickness is stated first in the beginning line of the third stanza, which pursues the dramatic action of the previous stanza and continues in the fourth stanza,

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[112] A stylistic feature that cannot but sound familiar to the reader of Guido Cavalcanti, whose spirits are often staged as different characters. See at least, Roberto Antonelli, "Cavalcanti o dell'interiorità." *Critica del testo* 4/1 (2001), pp. 1-22; Id., "«Per forza convenia che tu morissi»," in *Donna me prega: Guido Cavalcanti e le origini della poesia europea nel 7º centenario della morte. Poesia, filosofia e ricezione*. Atti del convegno internazionale (Barcellona, 16-20 ottobre 2001), ed. R. Arqués (Alessandria: Edizioni dell'Orso, 2004), pp. 1-14.

[113] See below 2.4 Per modum radicis*: Enzo, Taddeo, Guido*, especially pp. 169-178, for the hot and dry qualities of lovesickness as presented in Guinizzelli.

where lovesickness is explicitly referred as "infollire" ["madness," v. 38], and "lo mal [...] d'amore" (v. 44). After having been commanded by his mind to go see the beautiful sight of his lady, the poet wakes up "inflamed" ("inflamato," v. 23), and realizes that the voice is coming directly from Love, now splendid more than a star (vv. 26-30). The juxtaposition between perception of love, and the locative aspect of the mind, internal to the subject, helps to characterize the presence of love within the mind of the poet, whereby the lyric voice can present his subjectivity as split in different parts that are able to communicate within himself thanks to the connective power of the mind, hanging between desiderative faculties and rational powers.

The three central stanzas of the canzonetta thus stage a performance of the interiority in which the lyric voice of the poet has to come to terms with both his love-desire and with the mental state thereby resulting. The phenomenology described in the action of the poem enacts a hallucinatory stage in which lovesickness has taken control of the mind of the poet, and presents him with dialogue, images, and sensations that are separate from his rational being. The final stanza of the poem reconnects the threads of both the introductory stanza, and the staged performance that follows by directly stating that this is the state in which Love has left him ("Così mi traie Amore," v. 45). That abrupt "Hence" ("Così") defines both the rational inference and the resulting stage of his lovesickness, and brings us back to the opening act of the second stanza, where we first are confronted with the consequences of his mind in love. The "spirit" and the "heart" mentioned in line 46 ("lo spirito e lo core") are thus put in communication with the "disio e pensamento" of line 12, and the reader is led to believe that the poet's split consciousness can be located in different parts of his body. In a tight chiastic sequence, the same desire and thought at the base of the "amoroso talento" of line 13 are echoed in the last stanza with the motion of Love that induces both spirit and heart to feel for the lady. "Disio" is then a

manifestation of the desiderative faculty of the heart, as much as the "pensamento" is the intellectual phenomenon resulting from the cognitive powers of the "spirito." By staging in dialogic forms the internal spit of the subject's interiority, this anonymous canzonetta shows an original reprise of the physiological models debated in the intellectual circles of the physicians, where the powers of the heart are in possible communication with both the higher faculties of reason and with the natural concupiscence of the body.

The poetry of one of the great masters of the Sicilian-Tuscans, Chiaro Davanzati, also deals with the dialectical nature of the relationship between *core* and *mente*. In Chiaro's work this dialectic is generative of a series of innovations in the traditional framework of tropes that derive from the Sicilian models.[114]

In a canzone like *Tu[t]to l'affanno, la pena e 'l dolore* [canz. 51], the accumulation of different agents in the display of the subject's interiority produces an effect of mirroring between the first two stanzas of the poem. Even in the overly-consumed genre on the service of love, and the long-expected reward of the "guiderdone," Chiaro is able to insert some elements of novelty in the fibers of his tropes. The canzone opens on the realization that the present state of pain and discomfort is so aggravating that all love's labor past is a sweet sorrow. All his fidelity in the cause of servitude for *madonna* has led the poet to naught, so much that clouds of doubt on the worth of his cause are starting to form. His present state is such that all of his virtues are consumed ("ogne vertute mia è consumata," v. 5), and in stating his level of despair, he provides a list of his powers: "anima, mente, volontate e core" [soul, mind, will, and heart; v. 4] are all the faculties kneeling in service for *madonna*, to no avail. By stating the different sides of his interior

[114] Citations are from Chiaro Davanzati, *Rime*, ed. A. Menichetti (Bologna: Commissione per i Testi di lingua, 1965). My translations.

life, Chiaro complicates the relationship between the multifaceted aspects of his faculties.[115] This series of four elements is mirrored a few lines after, in the second stanza, when Chiaro reaffirms the complete subjugation of his powers to the service for *madonna*, so much that he put "talento, forza, volontà e pensieri" ["desire, strength, will, and thoughts; v. 16] at complete disposal of the one who asked for it (vv. 17-18). Chiaro's insistence on the unraveling of all the aspects at play in his interiority forces the reader to pause on the individual quality of his weakened powers, and the relationship between their substance in stanza 1, with their phenomenological representation in stanza 2.

This dialectic tone is one of the stylistic features in Chiaro's poetry, beautifully expressed in the canzone *Lo mio doglioso core* [canz. 47]. Much like in *Tu[t]to l'affanno*, and the anonymous *La mia amorosa mente*, the faculties of the heart and the mind are quite distinct, although affected by the same feeling of angst. The sentiment of pain and distress is communicated between the heart ("Lo mio doglioso core," v. 1) and the mind ("l'angosciosa mente," v. 2) through the bridge of remembrance ("risentire, / membrando," vv. 4-5), so that we participate in the configuration of a split interiority that is all in pain.

Having lost the cause of his joy of love, the poet cannot but state the harsh rebuke of his own heart, that recriminates the loss itself ("onde 'l cor m'ha colpato / d'[a]ver tal gio'per[d]uto," vv. 15-16). Here once again Chiaro is able to innovate the oft-cited trope of the address to the heart, by making it an active agent of his own desires, who is even able to dissociate itself from the painful decision of its owner. The heart lays claim to the prerogatives of

[115] A very similar sequence also in Panuccio del Bagno, *Considerando la vera partensa*, v. 14: "avea mia mente, corpo, alma e core" [had put my mind, body, soul, and heart]. Quotation from Panuccio del Bagno, *Rime*, ed. F. Brambilla Ageno (Florence: Accademia della Crusca, 1977).

his love-joy, exclusively deriving from the exceptional bounty of "l'amorosa" ["the beloved," v. 22].

The direct address to the heart in the third stanza produces an alienating effect in the reader who is used to the trope of the heart sent in the presence of the lady (as in some of the Sicilians). Chiaro's desperate questioning is left unanswered ("cor meo, perché non vai / davanti a l'avenente?," vv. 35-36), and the heart seems unwilling to follow the commands of its owner. Similarily to *Tu[t]to l'affanno*, when all the different sides of the interiority are clearly distributed among the different actors of his internal life, both strength and will are detached from the desiderative powers of the heart.

Chiaro keeps innovating motifs of the Sicilian tradition also in the contrasto *Donna, la disïanza* [canz. 37]. A dialogue between a "sire" and a "donna," where each stanza has a different narrative voice (much in the vein of the Occitanic *coblas tensonadas*),[116] this contrasto enacts the misunderstanding arisen from the troubadour imposition of *celar*, or keeping one's love hidden from everybody else. In the dialogue, the *sire* laments with his *donna* that he has been waiting in vain for her to reciprocate his love. When the woman gets her chance to speak in the following stanza, she explains plain and simple that her desire is very much in tune with her lover, and that there is no need to wait any longer. The man has removed himself from her presence for no reason, and has kept his love secretive because of unsubstantiated fear. The woman expresses her favorable feelings toward the man by asserting that her heart indeed desires him ("'l mio core vole," v. 76), and that love makes pleasing to her the fact that her beloved's heart would rejoice once again, if it is in pain now ("amore m'atalenta, / che da me gioia senta /

[116] The dialogic form of the *coblas tensonadas* have been introduced in Italian literature also by Mazzeo di Ricco, in *Lo core inamorato* [19.2].

lo vostro cor, se dole," vv. 77-79). In this exchange, the heart is the repository of the love-joy, as we have seen already in other poems by Chiaro. The faculty of *sentire*, the desire of feeling, is strictly connected with the virtues of the heart, and once again Chiaro likes to contrast it with the faculty of the *mente*. Once the joy of the heart has been ascertained, the woman states that the mind is content even more that it used to ("la mente ci è contenta, / assai più che non sòle," vv. 80-81), thus stressing how the mind gives its consent to the prerogative of love desire. The dialogic nature of the poem is therefore mirrored also in the dialogue between the internal faculties of the subject, whereby the desire of the heart is not un-willed by the virtues of the mind – as Chiaro says, "e già amor non disvole / gioia che ' no' abenta" [and love does not un-will a joy that has no rest; vv. 82-83] –, and the utter assent of the two powers makes the joy possible to achieve.

In the canzone *di lontananza Di lungia parte aducemi l'amore* [canz. 56], Chiaro stages the pain deriving from his being removed from the presence of *madonna*. The topical genre of the poem from afar expresses in traditional terms the dissonance of the subject's interiority, whose parts are all attracted towards the physical lodging of the woman. Chiaro doubles on the Sicilian trope of the heart that leaves the body to stay with the lady, by affirming that "la mente nonn è meco né lo core" [the mind is not with me, nor the heart; v. 4], thus creating the effect that his internal life is split in two halves, both belonging to the lady. But Chiaro does not limit himself to the affirmation of traditional tropes: he then reflects this internal division through the ambiguity of the object pronoun ("ché l'avenente l'ave in suo comando," v. 5), which could either refer to the mind, the heart, or the two together. The dialogic nature of the virtues of the heart and of the mind is thus mirrored in the syntax of the line, and their juxtaposition is even more striking when left clouded by the obliquity of the pronoun.

The second stanza of *Di lungia parte* then moves from the previous dislocation of faculties by defining the power of the lady on the interiority of the poet. As Chiaro has stated, the lady is *madonna* of Chiaro's joy, so much that she is in company of his heart ("l'avenente e 'l mio cor fan compagnia," v. 13). This line therefore takes on the previous stanza, where the subject had expressed that neither his heart nor his mind are in his possession anymore. As in some of his other canzoni, Chiaro then plays with the dramatis personae of his interiority, by directing an act in which the lady and his heart call the mind and the intellect at their presence ("e chiamano la mente e lo 'ntelletto," v. 14), to show them who is their master and commander ("che vegnano a veder chi segnor n'era," v. 15). The intellect comes to the scene as another face of the internal life of the subject, but closely related to the mind as if they were part of the same team. The lady has direct control over the heart of the poet, who is in much closer proximity to her, and by her ladyship's commands, it administers her will to the other secret chambers of the poet's interiority. The heart accepts the mastery of the lady, and through the heart, *madonna* is able to command the highest cognitive faculties of the subject, in a manner not dissimilar from the anonymous canzone *La mia amorosa mente*.

The canzone however does not investigate the relationship between these faculties, and the identity principle of the subject. The lyric voice of the poet is left lamenting his distance from the lady ("ch'io son disparte sanza lei parlare," v. 28), even when his heart, mind, and intellect had all left him by command of the lady. An empty shell of a human being, his identity is then under question, devoid of any possible joy to be achieved. His voice has no other choice but singing about the moment when the poet and the lady will finally be reunited, and his current nature is assimilated to that of a swan that ends its life with its song ("ché son di ciò pensando divenuto / natural come 'l ce[ce]ro divene, / che termina cantando lo spiacere," vv. 34-36).

By originally deploying the trope of the Sicilian tradition, Chiaro shows a much more nuanced relationship with the concept of mind and heart. The dialogic tension between *core* and *mente*, as expressed in his poems, furthers an understanding of the multifaceted aspects of the interiority, and the poetical framing of the communication between different forces of the soul.

Another great master of the Sicilian-Tuscan poetry of the 13th century, Bonagiunta Orbicciani da Lucca, discusses, albeit with less interesting results, the (para-)synonymic dittology between *core* and *mente*, which he investigates in a few examples. Like Chiaro, Bonagiunta tends to read the relationship between the two faculties of the soul as one continuum, a direct communication that results in juxtaposition of the elements.[117]

The canzone *Fina consideransa* [canz. 10] celebrates the joy of love in terms of utter delight, and defines how the totality of the being is exposed to the effects of love when the poet's love is requited. This element of totality is particularly evident in the sirma of the second stanza, where the poet expresses how he carries within himself a joyful heart and face ("E io porto gioioso core e c[i]era," v. 19), so much that this joy extends to the rest of his body, his mind, and the totality of his thoughts ("corpo e mente e tutta pensagione," v. 20). Heart, face, body, and mind (with its thoughts) all manifest the internal joy of not suffering because of love ("per quella ch'amoroso mi fa gire," v. 21), while constructing a sequence of four discrete elements (plus the "pensagione" of the mind) that are mirroring one another. Therefore, "corpo" and "c[i]era" [body and face] are the external manifestation of the sentiment felt within, through the internal sensory faculties of "core" and "mente" [heart and mind]. The chiastic disposition emphasizes the exterior representation of the internal events of the heart and the mind, while the bodily parts are

[117] Citations are from Bonagiunta Orbicciani da Lucca, *Rime*, ed. A. Menichetti (Florence: Edizioni del Galluzzo per la Fondazione Ezio Franceschini, 2012). My translations.

enclosed within the tantalizing force of the sentiment. Although Menichetti in his commentary prefers to read this series as a juxtaposition of physical and abstract,[118] I believe the point stressed by Bonagiunta is one of spatial dimensions with respect to the joy of love, where the life within is opposed to the external manifestation, based on the structure proposed above.

Core and *mente* create a synonymic dittology also in the discordo *Oi amadori, intendete l'affanno* [disc. 2] where the expression of the pain caused by unrequited love is channeled through both the mind and the heart. Bonagiunta underlines the perfect alignment of heart and mind in the first stanza, where he says how, because of his fruitless desire, "e penaci la mente / e 'l cor ne sta in tormento" [the mind suffers and the heart is tormented; vv. 6-7]. While the connection between mind and heart is much more apparent, the juxtaposition between *penare* and *stare in tormento* is not only synonymic, but also poetically relevant: both verbs are already in the same relation in Giacomo da Lentini's poem *S'io doglio no è meraviglia* [1.14], and constitute one of the most fortunate reprises of the Sicilian models.[119] Therefore, Bonagiunta is creating another chiastic structure that is reinforced by the poetical tradition of his predecessor, by aligning heart and mind, and encapsulating them in verbal actions of love's labors.

The same juxtaposition is proposed in the ballata *Tal è la fiamma e 'l foco* [ball. 5], where the lyric voice of the woman speaks of her love-suffering, and how much it is engrossing both

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[118] Not really relevant in hermeneutical terms the reference to the Gospels for "heart" and "mind," that Menichetti derives from Matthew 22:37 and Mark 12:30. In both texts the words are not contrasted in a clear way, and are put in a series together with "anima" (as in Matthew), and "anima" plus "virtus" (as in Mark).

[119] Giacomo, *S'io doglio no è meraviglia* [1.14], v. 7: "per cui peno e sto 'n tormento" [for which I am in pain and in torment]. On this particular stylistic feature and its life beyond Giacomo, see Rosario Coluccia-Riccardo Gualdo, "Sondaggi sull'eredità del Notaro." *Studi linguistici italiani* 26 (2000), pp. 3-51, especially pp. 38-40, and also the commentary *ad locum* in Giacomo da Lentini, *Poesie* cit., pp. 305-06.

her mind and heart ("ismarire – mi fate lo core e la mente," v. 3). Even though in the rest of the poem the heart seems to have a privileged position in the emotional life of the poetical subject, the very doubling of the mind and heart is another example of the communication between internal faculties that these poets are expressing in their poems.

By investigating the tropes of the Sicilian poets, and innovating them from within in their poems, authors the like of Chiaro Davanzati and Bonagiunta Orbicciani thrive in the nuanced aspects of the dichotomy between heart and mind. The dialogic nature and the embedded tension among the different sides of their interiority show a poetical reflection on the physiological investigation of Galenism, whereby the powers of the human soul are juxtaposed and interconnected by means of their faculties and their spirits. Although without the greatest doctrinal precision of the Sicilians (or of the next generation of poets), these masters of Tuscan poetry of the 13th century are no strangers an understanding of the human mind and body as a productive playing field for lyric poetry as well.[120] As wel shall see in the remaining pages of this chapter, Guido Guinizzelli's interest for the scientific engagement of the Bolognese university culture will bring these themes to another level of naturalistic precision, and will pave the path for an intellectual understanding of lyric poetry that will resonate with the Stilnovists.

2.4 *Per modum radicis*: Enzo, Taddeo, Guido

As I mentioned earlier in this chapter, manuscript evidence of a possible intervention of Guido Guinizzelli in the writing of Re Enzo's *S'eo trovasse Pietanza* had already haunted the philological discussions on the authorship of this canzone. Although the critical consensus seems

[120] Therefore, I believe that Roberto Rea, *Cavalcanti Poeta. Uno studio sul lessico lirico* (Rome: Edizioni Nuova Cultura, 2008), s.v. *Mente*, pp. 337-48, especially pp. 337-39, is too hasty in offering a simplification on the nuances of the term among the Tuscan poets.

prone to refute Guido's hand in the writing of the poem,[121] Rossi does not exclude this possibility for the last two stanzas, which are also transmitted independently from the other three, on account of Guido's legal advice on a ban involving two prison wardens that could have provided the conditions for a meeting with Re Enzo. The documentation has been recently analyzed again by Armando Antonelli in his biographical studies on the Guinizzelli family, with the purpose of shedding more light on Guido's web of contacts. The document shows that Guido's expertise was sought with regard to the annulment of a ban in which two guards of the civic prison were condemned. The document is transcribed and discussed by Emilio Orioli in his *Consulti legali di Guido Guinizzelli*,[122] in which we read that during one night of August 1267, the wardens aided and abetted the escape of some inmates "qui erant in carcere inferiori Comunis Bononie" [who were in the prison of the Commune of Bologna],[123] for reasons that are not stated. As the document relates, Nicholinus de Camilla de Janua, dominus Cacinimicus de

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[121] See the *cappello introduttivo* in *Poeti della Scuola siciliana* cit., pp. 728-731, and Claudio Giunta, *La poesia italiana nell'età di Dante. La linea Bonagiunta-Guinizzelli* (Bologna: il Mulino, 1998), pp.160-71, both refuting Guinizzelli's intervention in the poem. Rossi does not exclude a collaboration between Re Enzo and Guinizzelli, and prints the poem among the dubious canzoni in his edition (see Guinizzelli, *Rime* cit., p. 87). See also Coluccia, "L'edizione dei «Poeti della Scuola siciliana»" cit., especially pp. 13-16, who discusses the presence of Sicilian poetry (in the original language, and not translated into Northern dialects) in Bologna.

[122] Emilio Orioli, *Consulti legali di Guido Guinicelli* (Bologna: Zanichelli, 1907). *Archivio di Stato di Bologna, Comune, Curia del Podestà, Processi e sentenze in pergamena (1267-1270)*, n. 500, c. 20b, 22 marzo 1268, is at pp. 33-34. Quotations are from this edition, my translations.

[123] Bologna's first permanent city prisons were built in the new Palazzo del Podestà (the *Palatium Vetus*, completed in 1203). For an overview of Bologna's prisons, see Guy Geltner, *The Medieval Prison: A Social History* (Princeton-Oxford: Princeton University Press, 2008), pp. 21-27. Still in June 1268, the city council was debating whether to move the existing prison to another building. See *Archivio di Stato di Bologna, Governo, Signoria Viscontea, Ecclesiastica e Bentivolesca, Riformagioni e Provigioni (serie miscellanea)*, b. 314, 2 giugno 1268, quoted in Geltner, p. 140, 76n.

Barcha, Laurencius de Pergamo, and another prisoner simply known as Ubaldinus, escaped "malo modo et furtive" [in an evil manner and stealthly] thanks to the connivance of the guards, who "cum eis recesserunt" [disapperead together with them], and could not be found by the emissaries of the city after the deed. In March 1268, the annulment of the ban for two of the five guards present at the time of the escape, Jacobinus Ugolini Doxii and Johanninus magistri Alexii, was discussed, and Guido Guinizzelli gave a response favorable to the two escapees.

I report this apparently trifling case to highlight a few interesting points with regards to Guinizzelli's involvement in the legal business of the city prisons. First of all, in these very years Re Enzo was still held captive by the commune of Bologna in the *Palatium Novus* (or Palazzo Re Enzo), opposite the *Palatium Vetus* (now Palazzo del Podestà) where the prisoners of the city were incarcerated. Many chronicles report the legends surrounding the attempted, adventurous escapes of the nobleman from his prolonged captivity, so the event narrated in the document must not have been an isolated case.[124] A direct relationship with the actual practices of the city prisons sheds some light on the professional life of our poet, who was possibly no stranger to other important inmates, such as our Enzo. Secondly, we must not consider the prison wardens as officers in the modern sense: these guards were elected *ad brevia* (i.e., by drawing lots) among the free citizens of Bologna, and they were bound by the city regulations to be responsible for the vigilance and custody of the prisoners, activities for which they earned remuneration as well.[125]

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[124] See Antonelli-Pedrini, "Appunti su Re Enzo" cit., and the bibliography there cited.

[125] Orioli, *Consulti legali* cit., p. 5. Geltner, *The Medieval Prison* cit., at p. 24, states that "the statutes of 1252 mention four "boni et probi homines et fide digni" who were elected as the then single prison custodians. These men were nominated from each of the city's quarters and were to earn twenty-five lire each for a nonconsecutive one-semester term; they had to own property valued at two hundred lire or provide sureties for that amount; and they were obligated to sleep in the prison (*ibi in domo carceris*), where no less than two of them had to be present at all times."

A similar decree was issued in 1262 with respect to the guards elected to surveil Re Enzo: in this case, they had to be chosen among "bonos homines et divites et legales" [noblemen of good substances and no criminal record], with no remuneration and no possibility of refusal.[126] As a matter of fact, the two guards for which Guido's legal opinion was issued were no commoners:[127] Jacobinus is said to be son of Ugolinus Doxi, possibly the same Ugolinus member of the city council in 1216 (or his nephew?),[128] and Johanninus is stated to be the son of magister Alexius, possibly, according to Antonelli, the same Alexius named in Re Enzo's will as one of his six physicians.[129] I am aware of the speculative features of Antonelli's argument here, but if this web of relations is confirmed by further investigation, it could help us gain a better insight into Guido's personal contacts: not only other legal professionals, but also people with fewer degrees of separation from Re Enzo and his intellectual entourage.

The man in Re Enzo's entourage that seems most interesting for our discussion is in fact Taddeo Alderotti, who is named in Enzo's will as one of his personal medical practitioners, paid

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[126] Antonelli, "Nuovi documenti sulla famiglia Guinizzelli" cit., pp. 81-82.

[127] Nor were the inmates whom they helped to escape, apparently, if the Genoese Nicolinus de Camilla is the same Nicolinus de Camilla Ianuensis, author of an apparatus to the *Decretales* and papal chaplain of Nicholas IV (but already under the household of pope Nicholas III in 1278), and dominus Cacinimicos de Barcha is the same Lucchese jurist Caccianemico Barca, ambassador of Genoa to pope Nicholas III in 1279.

[128] *Archivio delle riformagioni di Firenze*, 19 febbraio 1216, in *Annali bolognesi*, vol. 2, part. 2, ed. L.V. Savioli (Bassano 1789), pp. 364-367.

[129] Antonelli, "Nuovi documenti sulla famiglia Guinizzelli" cit., pp. 82-83.

by the city of Bologna on account of the king's limited funds.[130] The fact that Taddeo is named first among the list of six physicians at the deathbed of Re Enzo is indicative of an early prestige that he acquired among his colleagues in Bologna, well before the apogee of his career in the 1280s.[131] As I will show in the rest of these pages, there are indeed points of contact between Guido's poetry and Taddeo's scientific production, and I argue that the judge and the physician could have met in Palazzo Re Enzo. As noted by Antonelli and Rossi, Guido Guinizzelli was no stranger to the most important families of the Lambertazzi party, and very close to the university circles of the legal *Studium*.[132] In 1270, Guinizzelli bought a house in the parish of San Benedetto in Porta Nuova, in the close vicinities of both Piazza Maggiore (where there were already several philo-Ghibelline families), and of the cluster of buildings in which the legal and

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[130] In his March 6th, 1272's will, Re Enzo begged "Communi Bononiae, quod paupertatis nostrae miserta, gravia expensarum onera non expavit, quatenus viros discretos Magistros Thadeum, Paulum, Bartolum, Peregrinum, Amadeum, et Alexium, medicos nostros, sui laboris decenti remuneratione laetificet" [the Commune of Bologna, having taken pity on our poverty, not to fear the great onus of the expenses, in so far as it may remunerate accordingly for their job Magister Thadeus, Paulus, Bartolus, Peregrinus, Amadeus, and Alexius, wise men, our physicians], in Ernst Münch, *König Enzius: Beitrag zur Geschichte der Hohenstaufen* (Ludwigsburg: C.F. Nast, 1828), pp. 135-151, at p. 136. My translations.

[131] See Taddeo Alderotti, *Consilia*, eds. P.P. Giorgi, G.F. Pasini (Bologna: Istituto per la storia dell'Università di Bologna, 1997), pp. 26-27. The authors of the introduction suggest also how, albeit the majority of the people around Re Enzo might have been followers of the Lambertazzi faction, Taddeo most probably was akin to the *partito popolare* and guelph, as some of his clients (e.g. Corso Donati), or more acutely a political opportunist.

[132] The Guinizzellis had tight relationship with other families of the Lambertazzi party, all connected in one way or another with the *Studium* (for instance, Odofredi, Guezzi, Fernari, della Fratta, Accursi, dei Libri. See Antonelli, "Nuovi documenti sulla famiglia Guinizzelli" cit.; Rossi, "La posizione storica del giudice-poeta" cit.; Id., "Ultimissime su Guido Guinizzelli di Magnano" cit.

medical schools hosted masters and scholars.[133] Not too far from the southern-western corner of Piazza Maggiore (where the *quartiere di Porta Nuova* once was), Taddeo Alderotti had several estates in the parish of San Martino dei Caccianemici, also in Porta Nuova. Guido Guinizzelli was thus immersed in his daily life in the intellectual exchanges of the *Studia*, and in his duties as both an active citizen of Bologna and a legal professional.

Guido's interest in natural philosophy is indeed a trait that has always been noticed in his poetical corpus, but it has been generally understood as part of his liberal education, and not as a genuine interest in the most recent developments in the scientific field. His pronounced natural interests cannot be framed under the sole aegis of his cultural milieu, so profoundly immersed in the civic aristocracy of his family,[134] and we must therefore investigate elsewhere. In the same years when Guinizzelli was active as a poet, Taddeo Alderotti was on the rise as the most prominent physician of the century, the revered teacher of two generations of medical practitioners who defined the Scholastic method of medicine in the *Studium* of Bologna.[135] Having begun his teaching career about 1264,[136] Taddeo was then in his forties or even fifties,

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[133] On the location of the different schools of medicine of the *Studium*, see Francesco Cavazza, *Le scuole dell'antico Studio bolognese* (Milan: Hoepli, 1896), pp. 119-48.

[134] Paolo Borsa reconstructed the canon of works that a man of Guido's extraction might have been familiar with, but I do not see how the *Oculus pastoralis*, Orfino of Lodi's *De regimine et sapientia potestatis*, John of Viterbo's *Liber de regimine civitatus*, Albertan of Brescia's *Liber de doctrina dicendi et tacendi* and *Sermones*, and Brunetto Latini's *Tresor*, could have nurtured some of the images that I am going to analyze in the following pages. See Paolo Borsa, *La nuova poesia di Guido Guinizzelli* (Fiesole: Cadmo, 2007), pp. 155-56.

[135] Given its historical thoroughness and expertise, the biographical account of Taddeo Alderotti is based on Siraisi, *Taddeo Alderotti and His Pupils* cit., especially pp. 27-42.

[136] Ibid., p. 35.

but with already a solid preparation in the fields of philosophy, logic, and of course medicine. However obscure the first years of his personal and professional life, according to Nancy Siraisi Taddeo must have acquired this amount of knowledge between the mid-1230s and the 1260s, either in Florence (where he was born and raised), or Bologna, or both.[137] Siraisi also argues that the schools of the Franciscans and the Dominicans might have fostered Taddeo's early education in arts, philosophy, and medicine, as his personal attachment to the Franciscans of Bologna shows. Taddeo in fact created a bequest to the Claresses of Bologna, with the condition of creating an endowment that would permit every year a Franciscan to study theology in Paris.[138] The centrality of Aristotelian philosophy, and the tentative reconciliation of the Stagirite with the teachings of Galen was indeed one of the main threads in Taddeo's career, which left an important mark on the subsequent development of Scholastic medicine. I argue that Guido Guinizzelli was no stranger to these debates too, and that his poems testify to the earlier reception of Taddeo's medical discussions, as well as to his prominent interest in the most advanced findings in philosophical and medical thought.

Let us go back to the sonnet with which we opened this chapter. As I noted above, Luciano Rossi interprets the "doglia" [pain] of the incipit as a sign of the political connotation that he believes inspired the poem. And yet the reader cannot but note the intense lyrical language that exudes from the lines of *Sì sono angostïoso e pien di doglia*. As argued by Armando Antonelli with respect to Guido Zaccagnini's analysis of the last years of the poet,[139]

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[137] See Siraisi, *Taddeo Alderotti and His Pupils* cit., pp. 32-33.

[138] Ibid., p. 33.

[139] See Guido Zaccagnini, "L'esilio e la morte di Guido Guinizzelli." *Giornale storico della letteratura italiana* 70 (1917), pp. 300-11.

Guido (†1274) was most likely already dead when the sentence of exile struck him, since his family did not leave Bologna until 1277. In the first years after the defeat of the Lambertazzi party, only the closest members of this family immediately left the city, while in the years between 1274 and 1277 the Guinizzelli were still trying to collaborate with the people's government and with the Geremei.[140] As I find Antonelli's analysis of the surviving documentation very appropriate and convincing, I am not persuaded by the traditional account which sees in these verses the lamentation of an exiled man. The lexicon of the sonnet belongs entirely to the love-lyric tradition, as the situation represented shows us: the pain and anguish felt by the subject is so powerful that he is left with "molti sospiri" [many sighs, v. 2] and rancor ["rancura," v. 2] so great that he is not able to understand what he wants, nor what is going to happen to him in the future ["non posso saver quel che mi voglia / ‹né› qual poss'esser mai la mia ventura," vv. 3-4].

This situation is very much in line with a standard diagnosis of lovesickness, described in the medical treatises as an affliction of the faculty of judgment of the *vis aestimativa*, which cannot discern between what is good and what is bad in relationship to the subject.[141] The anguish and the pain felt by the subject trigger all the sighs and spirits ["molti sospiri," v. 2],

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[140] Antonelli, "Nuovi documenti" cit., pp. 91-97.

[141] On the *amor hereos*, or lovesickness in its higher degree, see Massimo Ciavolella, *La malattia d'amore dall'Antichità al Medioevo* (Rome: Bulzoni, 1976), and Natascia Tonelli, *Fisiologia della passione. Poesia d'amore e medicina da Cavalcanti a Boccaccio* (Florence: Edizione del Galluzzo per la Fondazione Ezio Franceschini, 2015). Petrus Hispanus, *Questiones super Viaticum* (PH A 88): "amor non est morbus, sed defectus vel corruptio estimative iudicantis unum prevalere omnibus aliis ratione cuius amor hereos est morbus et passio ipsius cerebri" [Love is not a sickness, but a defect or corruption of the estimative (faculty), which considers one thing to be above everything else, in virtue of which amore hereos is a sickness and passion of the brain], cited from Mary F. Wack, *Lovesickness in the Middle Ages: The* Viaticum *and Its Commentaries* (Philadelphia: University of Pennsylvania Press, 1997).

which are in turn the symptom of an excessive functionality of the thoracic organs. Dedicated to the contemplation of the thing desired, the whole body is inclined to the apprehension of the object, and fails to control the voluntary motion of the pulmonary contractions: as described by Galen, respiration's primary function is that of regulation of the innate heat, generated and preserved by the heart (*De usu partium* VI 2, VII 9), and Nature made respiration a voluntary motion at all times to preserve it from its connection to the pulsation of the heart (*De usu partium* VI 7, VII 9). The interconnection between the complexion of the heart and that of the lungs affects the behavior of the subject as well, as exposed in Galen's *Ars medica*: when respiration is deeper than normal, the pulse is higher and quicker, and the subject seems inclined to sudden actions of temerity, odds are the heart is hotter than usual, and this affects the functionalities of the rest of the thoracic area (*Ars medica* 10-11). The heart, which is subject to the scalding hotness of the resulting excitement of the chest, requires a greater intake of breath to cool down, so that inspiration becomes deeper and more abundant.[142] Moreover, as they are fixated in the contemplation and memory of the desired object, the rest of the cognitive faculties of the subject are diverted from their natural course, and fail to formulate a proper sensible judgement with respect to his necessities. As noted again by Galen, excessive hotness in the cerebral area provokes an instability in judgement and opinion,[143] so as to justify the lack of sense expressed in the poem that we are reading. As a matter of fact, Guinizzelli tells us that the pain he experiences is not the only cause for the increase in the respiratory activity that we have already

[142] On the influence on respiration, see Ciavolella, *La malattia d'amore* cit., especially pp. 80-81, and Tonelli, *Fisiologia della passione* cit.

[143] *Ars medica* 6 (K I: 322): "Changeability of opinion indicates a hot one [i.e. substance], while stability indicates a cold one."

described, but it is also connected with the loss of will and perspective with which he closes the first quartina: "non posso saver quel che mi voglia / ‹né› qual poss'esser mai la mia ventura" (vv. 3-4).

The resulting situation is that of a loss of nature, and lack of the living qualities and features that make a being what it is: "Disnaturato son come la foglia / quand'è caduta de la sua verdura" [I lost my nature as the leaf when it falls from the branches, vv. 5-6]. The subject feels as estranged from his nature as the dry leaf that fell from the tree, and the general temperament of dryness is so overwhelming that the constitutive nature is affected. A dry complexion resulting from an excessive hot quality had been already put in connection with sexual desire in Galen's *Ars medica*: in describing the natural temperament of the genital organs, Galen notes that "[o]f mixture of the testicles, the hot is the most erotic, liable to the production of males, and fertile; it leads to early growth of hair on the genitals and proximate areas," while the dry and hot complexion of the genitals "is productive of the thickest and most fertile sperm, and from the beginning urges the animal most quickly towards congress" (*Ars medica* 13; K I: 339-40). The situation of anguish and frustration in which the subject expresses his pain of unrequited love in the first quartina of Guinizzelli's sonnet is thus connected with an unnatural, excessive hotness and dryness of his entire body, which in turn excites his mind to sexual desire. This context will prove useful also for the difficult "scoglia" [bark] of line 7, usually referred to the tree's outer skin that is as dry as the leaf that has fallen. The word reappears in another of Guinizzelli's sonnets, *Fra l'altre pene maggio credo sia* – "lo saggio, dico, pensa prima via / di gir che vada che non trovi scoglia" [the wise man, I say, thinks well before starting on his journey, so as to not find hindrance in his path, vv. 3-4] – where "scoglia" has a completely different meaning. In

the language of the Duecento, "scoglia" fluctuates between the meaning of "outer covering,"[144] or "rock, cliff,"[145] from which the general "hindrance" or "obstacle" of Guinizzellis's *Fra l'altre pene maggio*. Derived from Lat. SPŎLIA (sing. SPOLIUM), probably with an interference of "scaglia" or "scorza" for the different beginning, It. *scoglia*, "skin" preserves the meaning of outer skin of its etymological origins, while It. *scoglia*, "cliff" derives from Lat. SCŎPŬLUS (from Gr. σκόπελος, "rock," possibly through Genoese *scöggiu*), thus giving us two almost identical phonetical facies.[146] Guinizzelli's "scoglia" seems closer to the meaning derived from Lat. SPŎLIA, although I might propose another lexical and phonetical interference with "coglia" [scrotum], from Medieval Lat. COLEA, n. plur. of COLĔUM, from Classical Lat. COLĔUS, "testicle," by means of Medieval Lat. EXCOLIATUS, "castrated."[147] This reconnects with our medical intertext as per the hot dyscrasia affecting both the genital temperament of the subject and his cognitive sensibility.

The restless inability of such a temperament is tantalizing for a subject who cannot find peace of mind in his desire. But Guinizzelli does not stop there; he goes on to say that the over-natural constitution of his body is not only confined to one specific area, but it is a general

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[144] As in Bono Giamboni's *volgarizzamento Delle Storie contra i Pagani di Paolo Orosio libri VII*: "perché abbiendo egli una scoglia durissima, si rintuzzavano, e i colpi tornavano addietro" [for as it had a very hard skin, the strikes bounced back].

[145] As in Guittone d'Arezzo's canzone *O cari frati miei, con malamente*: "ove pur fugge porto e chere scoglia" [where it continuously avoids the harbor and seeks the cliff, v. 68].

[146] Salvatore Battaglia-Giorgio Bàrberi Squarotti, *Grande dizionario della lingua italiana*, 21 vols. (Turin: UTET, 1961-2004), s.v. "scoglia," "coglia."

[147] Charles Du Cange, *Glossarium mediae et infimae latinitatis*, 10 vols. (Niort: L. Favre, 1883-87), s.v. "excoliatus."

dyscrasia that affects his entire being: it is not only the "bark" that is dry ["m'è secca la scoglia," v. 7], but also "the root of its nature" ["la radice de la sua natura," v. 8]. Together with Edwards and Rossi, one is left wondering why the terms of the simile refer both to the dryness of the subject-leaf and to the general dryness of the tree which was once "verdura" ["leafy," v. 6]. I had already noted above that, despite its apparent simplicity in diction, this entire quartina is not easy to expound in terms of its general meaning without the correct medical references, which seems to direct our discourse to Taddeo Alderotti and his Galenic exegesis. In contrasting the theories on the *hegemonikón* of the body, which put the authorities of Aristotle and Galen on two extreme sides of the spectrum, Taddeo reminds us in his lectures on Galen's *Ars medica* that there are two ways in which an organ of the body can be said to be directive (or *principale*), "uno modo per modum radicis, et alio modo per modum instrumenti" [on the one hand as per its root, and on the other hand as per its instrument;].[148] In the first case (*per modum radicis*), the emphasis is on the first origin of its nature and life, that is the heart, directive principle of the vital spirit and seat of our innate heat; in the latter (*per modum instrumenti*), the physiology of the organs is analyzed with respect to their proper functions, so to save at the same time both Galen and Aristotle with respect to the principles of the body.

Taddeo here demonstrates that his reconciliation of authoritative discourses is indebted to Avicenna's analogous passage in *Canon*, where the medical philosopher states that, regarding the

[148] The entire passage read: "membrum dupliciter dicitur principale. Uno modo per modum radicis, et alio modo per modum instrumenti. Unde dico quod membrum principale per modum radicis non fuit nisi unum, scilicet cor" [the organ may be called directive in two ways. On the one hand as per its root, and on the other hand as per its instrument. Thus I say that the directive organ as per its root is not but one, that is the heart; Taddeo, *comm. Tegni* II, lec. 8, fol. 37vb]. Quotations from *Thaddei Florentini medicorum sua tempestate principis in C. Gal. Micratechnen commentarij*..., cited in Ottosson, *Scholastic Medicine and Philosophy* cit., pp. 222n. My translations here and elsewhere.

hegemonic principle of the body, one might tackle the question from a philosophical standpoint or a strictly medical one: in the former view, the analysis focuses on the causal origins of the physiological movements of an organ, and so the only organ that acts without receiving is the heart, "virtutum prima radix" [first root of the virtues].[149] But with respect to their individual faculties, the four organs of the brain, heart, liver and testicles are "directive principles" (*principalia*) because of their particular functions.[150] Taddeo thus explains that, by virtue of its "radical origins," the heart is the founding nature and direct principle of the entire body. No matter how unrelated the functions of the single organs are, they all depend in some way on the vital faculties administered by the heart.[151] This view opens up an unexpected light on the

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[149] The entire passage reads: "Philosophorum nanque magnus dixit, quod membrum tribuens, et non recipiens, est cor: ipsum enim est virtutum prima radix: et omnibus aliis membris suas tribuit virtutes, quibus nutriuntur, et vivunt, et quibus comprehendunt, et quibus movent" [In fact the greatest among the philosophers [scil. Aristotle] said that the organ which gives and does not receive is the heart, that is in fact the first root of the virtues. And to all the others organs it gives its virtues, by means of which they are nurtured, and live, and are included, and move; Avicenna, *Canon*, bk. 1, fen I, doct. 5, ch. 1, fol. 9r].

[150] As stated in Galen's *Ars medica*: "Principia igitur sunt cerebrum, cor, epar, et testiculi. Ab illis vero exorta sunt, et illis famuluntur: nerui quidem et spinalis medulla cerebro; cordi vero arteriae; vene epati; seminalia vasa testiculis" [The directive organs thus are: the brain, the heart, the liver, and the testicles. From them originate, and those they minister: nerves and bone marrow, from the brain; arteries, from the heart; veins, from the liver; *vasa deferentia*, from the testicles; *Tegni* II 1, fol. BB3v]. My translation.

[151] According to Taddeo, not to be confused with any of the faculties of the soul described by Aristotle, but rather, as Siraisi puts it, "an essential precondition of the activity of all of them" (*Taddeo Alderotti and His Pupils* cit., p. 166). See also the passage commented by Siraisi: "ista virtus [scil. virtus vitalis] non est proprie sub aliqua istarum trium: sed est radix ad omnes has virtutes prout sunt in homine, et fundantur in ea omnes" [this virtus vitalis is not properly subject to one of these three, but it is the root of all other virtues that are in man, and all are based in it; *comm*. *Isagoge*, fol. 359rb]. Quotations from *Thaddei Florenini expositiones in arduum aphorismorum Ipocratis volumen, in divinum pronosticorum Ipocratis librum, in perclarum regiminis acutorum Ipocratis opus, in subtilissimum Ioannitii Isagogarum libellum, Ioannis Baptiste Nicollini Saldiensis opera in lucem emisse* (Venice: Giunta, 1527). Further references to Taddeo's commentary are from this printed edition. My translations here and elsewhere.

quartina we are discussing, for in this way it is clearer how the subject feels estranged from his nature when the root of it is as dry as the rest of the single, individual parts. Guinizzelli's connection with medical knowledge is far from occasional: he is clearly stating that, although the hot complexion of his organs is affecting both the physiological functionality of his body and the judgement of his intellective faculties, the dyscrasia is more serious than previously considered. As a consequence of his "torto," he is drying up like a barren leaf detached from its natural principle: he is "disnaturato" because the generative principle by which he is affected originates from the root of all other faculties, that is the heart and his vital principle.

The concept of an unnatural cause that affects the functionality of the entire body is not alien to the medical discussion in both Galen and his commentators, and a possible way to understand "disnaturato" is through the categories of health and disease as expounded in medical literature. In the discussion on the definition of the field of medicine, Galen describes it as the "knowledge of what is healthy, what is morbid, and what is neither" (*Ars medica* 1; K I: 307). As far as medicine is concerned, there are things that can be regulated and things that eschew the control of both the physician and the patient. Among the causes that alter the constitution of the body, in fact, some of them are necessary (and thus unavoidable), and some of them are not, in virtue of their own nature: human beings cannot be estranged from their natural habitat, where they breathe, eat, drink, are awake and sleep, but they can – most of the time – be removed from the dangers of swords and feral beasts (*Ars medica* 23; K I: 365-70). Given the human body's connectedness with its surroundings, the human body can exercise some control over the things that directly and necessarily affect it, by means of a correct diet (or *regimen*, as far as ancient medical terminology goes), by regulating the place to live, the things to assume, and the activities to which to be exposed. As stated in the *Ars medica*, these factors are simply named

"necessary," although an influential commentary to the Galenic text like the *Isagoge Johannitii* (and the primary introduction to Galen's survey crash course in medical definitions) gives a more systematic account of all these variables. The shift in terminology is interesting for our discussion, since these factors are framed under the categories of "res naturales," "res non naturales," and "res contra naturales." Among the "natural things" there are the things essential for life, such as elements, complexions, composites, organs, virtues and spirits. The things deemed non-natural are more or less the list already provided by Galen with respect to the conditions to which human beings are constantly exposed on a daily basis, to which we must add the passions of the soul.[152] The things that go against nature are then "morbus" [sickness], "morbi causa" [cause of the sickness], and "accidentia morborum sequentia" [accidents that follow the sickness].[153] This passage therefore highlights how illness, its causes, and its consequences are understood as being something that goes beyond the natural course of life. If, as we know from Galen himself, illness is the permanent or temporary unbalanced temperamental state of the body (*Ars medica* 2; K I: 310-11), any dyscrasia that causes a malfunctioning in the physiological course of the human being is therefore necessarily *praeter* or *contra naturam*.

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[152] On the six non-naturals, see Lelland J. Rather, "The Six Things Non-Natural: A Note on the Origins and Fate of a Doctrine and a Phrase." *Clio Medica* 3 (1968), pp. 337-47; Saul Jarcho, "Galen's Six Non-Naturals: A Bibliographical Note and Translation." *Bulletin of the History of Medicine* 44 (1970), pp. 370-77; Jerome J. Bylebyl, "Galen on the Non-Natural Causes of Variation in the Pulse," and Peter H. Niebyl, "The Non-Naturals." *Bulletin of the History of Medicine* 45 (1971), pp. 482-85, 486-92; Temkin, *Galenism* cit., p. 102; Ottosson, *Scholastic Medicine and Philosophy* cit., pp. 253-70; Nancy Siraisi, *Medieval and Early Renaissance Medicine: An Introduction to Knowledge and Practice* (Chicago-London: University of Chicago Press, 1990), p. 101.

[153] *Isagoge Johannicii*, § 41 *De Accidentibus Animae*, p. 160.

All these discussions seem to nurture the genesis of the "disnaturato" in Guinizzelli, since the unbalanced temperament that he describes in the second quartina of his sonnet is framed under a discussion of the malicious effects that trickle down from the hot dyscrasia of his state. The medical discussion thus feeds some of the images of Guinizzelli's poetry, through tropes that give substance to the physiological and psychological distress that he is expressing. The final two terzine of the sonnet bring us back to the lyric context that I proposed at the beginning of this analysis, especially for the image of the turtle dove that lingers in solitude when separated from its companion: "soletto come tortula voi' gire, / solo partir mia vita in disperanza" [alone as the turtle I will go, carrying along my life in solitude and despair, vv. 12-13]. The image is a *topos* of amorous fidelity and commitment in the medieval tradition, as the commentaries by Pelosi, Contini, and Rossi diligently note as well: from Propertius's *Elegiae* II 15, vv. 27-28 "exemplo iunctae tibi sunt in amore columbae, / masculus et totum femina coniugium" [Be the doves an example to you of love, male and female in complete union], to Isidorus's *Etymologiae* XII vii 1 "[turtures] in desertis secretam vitam diligunt" [turtle dove carry a secluded life in the deserts], and 60, "avis pudica, et semper in montium iugis et in desertis solitudinibus commorans" [a modest bird, always lingering on the top of the mountains and in the solitude of the desert], through the *Vie de Saint Alexis*, "Ore vivrai an guise de turtrele" [From now on I will carry my life as a turtle dove, v. 149], and Brunetto Latini's *Tresor* I clxx 1, "torterele est uns oiseaus de grant chasteté, ki abite volentiers loins de gens" [the turtle dove is a bird of great chastity, that gladly lives away from people]. The examples could be multiplied; they all stress the intense lyrical inspiration of the image, and the amorous connotation of the poem.

This sonnet is a good example of the multicultural approach of Guinizzelli's poetry, and the richness of the sources that can be detected in his poems. Far from being a passive receptor

of an established lyrical tradition, or a confused pioneer of scientific knowledge which he cannot fully understand, this poem shows us how far-reaching Guinizzelli's intellectual background was, and helps us identify a productive investigative path through his production.

2.5 Avicenna's *forma specifica* and Guinizzelli's *cor gentil*

Another medical thread can be detected in the image of the magnet used by Guinizzelli in both his seminal canzone *Al cor gentil* and the more "Sicilian,"[154] *Madonna, il fino amore ch'io vi porto*. This will also show how too static a distinction with respect to Guinizzelli's production is not productive in terms of his cultural references, since his interest in science and philosophy can be identified as well in poems generally ascribed to his poetic apprenticeship.

Al cor gentil has been named the "poetic and moral manifesto" of the new style, "the radical turning point of the love-lyric tradition."[155] Pivotal for Dante's own personal poetic curriculum, this canzone has been often read for the Stilnovist ideology there expressed and received by its later emulators, but it also shows a great knowledge of philosophical and scientific material. By framing the parallel between love ("amore") and the noble heart ("cor gentil," v. 1) in the Aristotelian language of potency and act, Guinizzelli "does not limit himself to saying that Love is attracted by a noble heart," but he affirms the radical idea that "without a noble heart, there is no Love."[156] However, as noted by Gianfranco Fioravanti regarding the

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[154] See Furio Brugnolo, "I Siciliani e l'arte dell'imitazione: Giacomo da Lentini, Rinaldo d'Aquino e Iacopo Mostacci «traduttori» dal provenzale." *La parola del testo* 3 (1999), pp. 45-74.

[155] See Rossi, *cappello introduttivo* to "Al cor gentil," p. 30.

[156] Ibid., p. 31. See also Contini, *Poeti del Duecento* cit., p. 152.

philosophical trends in medical thought, owning some Aristotelian language is not enough to be considered a philosopher.[157] Guinizzelli is certainly going beyond merely trendy philosophical language, and nurtures his canzone with logical arguments that have repercussions in the medical field as well. As stated in the first stanza of *Al cor gentil*, the mechanisms of love are not dissimilar from those of Nature, that is, they follow a rationale (φύσις λογική, *natura rationale*) that can and must be discovered by the *physiologus*, the scientist of Nature.[158] Love always returns to the noble heart *in the same way as* the bird follows its natural instinct to find a dwelling in the branches of the woods: "Al cor gentil rimpaira sempre amore / come l'ausello inselva i·lla verdura" [Love always returns to the noble heart, as does the bird when it takes shelter in the branches, vv. 1-2]. This statement cannot be simply explained with recourse to Boethius's *Consolatio philosophiae* or to the lyric tradition in the vernacular, as done by Rossi and Piero Boitani, for the cultural models are quite different.[159] Boethius's bird longs to return to the forest once it is able to glance at it from its cage, even though it has been loved and taken

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[157] See *La filosofia in Italia al tempo di Dante*, eds. Carla Casagrande, Gianfranco Fioravanti (Bologna: il Mulino, 2016), p. 65-66. Borsa connects Guinizzelli's theory of nobility to the aristocratic and political environment of Bologna in the years 1260s and 1270s, with hermeneutic repercussions of importance (see below for some conclusive notes). See Borsa, *La nuova poesia di Guido Guinizzelli* cit., pp. 147-95. Maria Luisa Ardizzone, "Guido Guinizzelli's 'Al cor gentil': A Notary in Search of Written Laws." *Modern Philology* 94 (1997), pp. 455-74 links Guinizzelli's contribution to the concept of natural law and Scholastic milieu.

[158] On Galen and the idea of φύσις λογική in Galenism, see Luis García Ballester, *Galeno en la sociedad y en la ciencia de su tiempo* cit., pp. 120-124, and Pedro Laín Entralgo, "Ciencia helenica y ciencia moderna: la φύσις en el pensiamiento griego y en la cosmologia postmedieval," in *Actas del II Congreso Español de Estudios Clásicos* (Madrid: Publicaciones de la Sociedad Española de Estudios Clásicos, 1961), pp. 153-169.

[159] See Rossi, *Introduzione* cit., pp. xxii-xxiii, and Piero Boitani, *Il genio di migliorare un'invenzione. Transizioni letterarie* (Bologna: il Mulino, 1999), pp. 73-74.

care of by its masters, because its nature moves it to its natural place. The *stabilis orbis* of Boethius's meter (v. 38) states the indissoluble laws of Nature, so much so that not even the tamed lion can forget the taste of blood, nor the bird the sweet abodes of the forest: it is a natural returning to what cannot be truly forgotten, a path that points towards our first origins.[160] The first simile in Guinizzelli's canzone must be contextualized together with the following lines, to which they are coordinated by the double negative conjunction "né... né..." [neither... nor...], that clarifies how, by the laws of Nature, Love and the noble heart are created simultaneously, and one cannot exist if the other does not: "né fe' amor anti che gentil core, / né gentil core anti ch'amor, Natura" [neither Nature created Love before the noble heart, nor a noble heart before Love, vv. 3-4]. There is no coming back to a preexisting, natural place of abode, nor is Guinizzelli merely highlighting the motion towards the noble heart in his poem: the first simile of the canzone stresses the importance of a natural coexistence between two parallel terms, as if the woods could not exist without the birds, or vice versa. The accent is on the poignant logic of Nature behind both natural movements, not on the terms of the simile themselves.[161] The image extends beyond this first parallel by recurring to the coexistence of light with the sun, and that of hotness with fire: in the very same moment when they came to be, the other immediately followed: "ch'adesso con' fu 'l sole, / sì tosto lo splendore fu lucente, / né fu davanti 'l sole" [as soon as the sun came to be, then lightness became luminous, nor the sun existed before it, vv. 5-

[160] I feel this is another point of contact between Boethius and Augustine's trinitarian psychology, whereby, as Seamus O'Neill puts it, memory is understood as "a limited human code of approximating God's being outside of time," a sort of trace left in us of God's presence. See Seamus O'Neill, "Augustine and Boethius, Memory and Eternity." *Analecta Hermeneutica* 6 (2014), pp. 1-20, citation at p. 8.

[161] Therefore, I do not agree with Borsa, *La nuova poesia* cit., p. 173, who affirms that gentilezza coincides with a predisposition to virtue "solo in un secondo momento" [only eventually]: the "procedimento logico" invoked by Borsa is in fact one of consubstantiality, not succession.

7]. And the same relationship exists between Love and nobility, "così propïamente / come calore in clarità di foco" [so properly as hotness in the clarity of fire, vv. 9-10].

This first cluster of images extends beyond the first stanza into the rest of the canzone, and substantiates the logical arguments there proposed. The mechanisms of Love are thus explained with recourse to the powers of the stones and the influence of the stars, and in particular that of the magnet. As the sun predisposes the stone to receive the influence of the corresponding star, and becomes thus "prezïosa" [precious, v. 12], so Nature predisposes the heart to receive the Love potency of the lady, and become thus truly "asletto, pur, gentile" [superior, pure, noble, v. 19]. The correspondence between the natural refinement of the stone and the process of falling in love is clearly stated in the last line of the second stanza, where Guinizzelli writes how the lady acts like the stars above: "donna a guisa di stella lo [*scil*. the heart] 'nnamora" [the lady makes the heart fall in love as the star, v. 20]. I will try to graphically render the terms of this simile in the quotation below:

> Foco d'amore in **gentil cor** s'aprende
> come vertute in **petra prezïosa**,
> che da la STELLA valor no i discende
> anti che *'l sol* la faccia gentil cosa;
> poi che n'à tratto fòre
> per sua orza *lo sol* ciò che li è vile,
> STELLA **li** dà valore:
> così lo **cor** ch'è fatto da *natura*
> asletto, pur, gentile,
> DONNA a guisa di STELLA **lo** 'nnamora.
>
> [Fire of love is enkindled in a **noble heart**, like virtue in the **precious stone**, to which the power does not come from the STAR before the *sun* had made it a noble thing; after the *sun*, with its power, had extracted what is vile, the STAR infuses virtue in **it**: in the same way, the **heart**, that has been created by *nature* superior, pure, and noble, the LADY, LIKE THE STAR, causes **it** to fall in love, vv. 11-20]

The entire process illustrated in the second stanza ties up all the scientific and doctrinal arguments that are expressed in the poem, and clarifies the philosophical tenets of the canzone. A similar argument is discussed by Taddeo Alderotti, primarily in his commentary on the *Isagoge Johannitii*, when he treats the question of temperament (*complexio*), specific form (*forma specifica*), and substantial form (*forma substantialis*).[162] As we have seen above,[163] *complexio* is the central concept of Galenic medicine (in Galen's own words, κρᾶσις), and it is based on the assumption that every part of the body is a balance of elemental, opposing qualities (hot/cold, dry/wet). Taddeo's discussion of the two kinds of form is related to a similar problem raised by Avicenna in his *Canon* (bk.1, fen II, doct. 2, ch. 1.15) as to whether there is any kind of connection between the temperament and the specific form, and the reference to Avicenna will be of pivotal importance in Taddeo's argumentation. Taddeo starts off with a series of *quaestiones* in his commentaries to the chapters in the *Isagoge* dedicated to the different types of mixtures (*De commixtionibus*, ch. 4), and on the different kinds of assimilation (*De modis ciborum*, ch. 27). According to Taddeo, there are three dubious issues that are related to the definition of the mixtures: first, whether there is a difference between temperament (*complexio*) and mixture (*mixtio*); second, whether the *complexio* is the substantial form of the bodily part or

[162] On this question, see Siraisi, *Taddeo Alderotti* cit., pp. 159-162, and Ottosson, *Scholastic Medicine and Philosophy* cit., pp. 141-142.

[163] See above 2.2 *Matters of Physiology: Galen's Response to Aristotle*, and 2.3 *A Galenic System Towards Reconciliation*.

not; third, whether the *complexio* or the substantial form preexists in the subject.[164] Regarding the first point, Taddeo rapidly states that two different definitions hold two different concepts, and so, following Aristotle and Avicenna, if for mixture we intend the union of opposing, mixable things, and for *complexio* the quality deriving from action and passion of different qualities, they are not synonyms.[165] Taddeo draws a distinction between the different relations between *complexio* and bodily part, one by taking the part as substance in itself (*prout membrum est substantia*), the other by seeing the part in its operations (*[complexio] comparatur ad membrum prout est instrumentum operationis*). *Complexio* can be understood as a substantial form of the bodily part just as it relates to the function of the part, not as substance in itself of the bodily part.[166]

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[164] Taddeo, *comm. Isagoge*, fol. 346rb: "primum est an complexio et mixtio sunt idem vel diversa; secundum est an complexio sit forma substantialis membri vel non; tertium an complexio vel substantialis forma antecedat in subjecto" [first, whether complexio and mixture are the same thing or two different things; second, whether the complexio is the substantial form of the organ or not, third, whether the complexio or the substantial form comes before in the subject].

[165] Taddeo, *comm. Isagoge*, fol. 346rb: "mixtio est miscibilium alternatorum unio" [a mixture is the union of things miscible; Aristotle, *De gen. et corr*. I 10, 328b], "complexio est qualitas quae ex actione et passione etc." [*complexio* is quality that comes from action and passion etc.; Avicenna, *Canon*, bk. 1, fen I, doct. 3, ch. 1, fol. 4r].

[166] Taddeo, *comm. Isagoge*, fol. 346va: "Ad hanc questionem dico quod complexio comparatur ad membrum dupliciter, uno modo prout membrum est substantia, et hoc modo non est ei forma substantialis, immo accidentalis, alio modo comparatur ad membrum prout est instrumentum operationis, et hoc modo dico quod complexio est membro forma substantialis, nam per complexionem operatur membrum et tenetur inesse instrumentum" [To this question I say that *complexio* is connected to the organ in two ways: on the one hand, as the organ is considered substance, and in this way it is not a substantial form to it, but rather accidental; on the other hand, it is connected to the organ as this is considered instrument of the faculty, and in this way I say that *complexio* is the substantial form to the organ, in fact through *complexio* the organ operate, and the instrument has its existence].

This distinction is important to Taddeo also for the differences between substantial and specific form, and between these and the *complexio* of the body. In this respect, the authority of Avicenna is of extreme relevance for Taddeo, and in fact the discussion around the assimilation of things ingested done by Avicenna in the chapter *De eo quod comeditur et bibitur* (*Canon*, bk. 1, fen II, doct. 2, ch. 1.15) substantiates much of Taddeo's conclusions on the matter. With *forma specifica* (specific form), the physicians explain a particular property of the object that is distinctive to its species and that is added on top of the substantial form of the body: as explained by Taddeo, specific form is called that which acts by means of its specific properties ("a forma specifica dicitur quod agit a sua proprietate," [it is said so on account of the specific form that acts on account of its property], *comm. Isagoge*, fol. 377vb), and in some way it is what gives the object its specific substantial properties, i.e. the thing that it is ("est substantia per quam res habens eam est id quod est," [it is substance by which the thing that has it is what it is], Ibid.). Together with the power of single medicinal herbs, the example given by Taddeo is that of the magnet and the iron ("ut magnetis proprietas per quam agit in ferrum," [as the power of the magnet, by which it acts on iron] Ibid.), so to say that the power of attracting iron is to the magnet its "magnet-ness," the thing that makes it what it is, in relation to its properties. The definition of what a specific form is brings Taddeo to a series of related dubious *quaestiones*,[167]

[167] Taddeo, *comm. Isagoge*, fol. 378ra: "De secundo principali, scilicet de dubijs. Tria queruntur, primum est de forma specifica, secundum est de cibo, tertium est de medicina. Et de forma specifica queruntur octo, primum est an ipsa forma specifica sit res facta ex elementis aut sit res infusa a corpori celesti vel a deo, secundum est an ipsa sit idem cum complexione vel non, tertium est an complexio sit causa eius vel non, quartum est an complexio precedat eam vel non, quintum est an ab ista forma fiat actio vel non, sextum est an actio istius forme sit a simili an a contrario, septimum est an omnis res habeat proprietatem sive formam specificam vel non, octavum, est an cibus agat in nobis a forma specifica vel non" [On the second-first question, i.e. the dubious things. Three things are investigated: first, on the specific form; second on food; third, on medical substances. And about the specific form, eight things are investigated: first, whether this specific form is created out of the elements or it is infused by an heavenly body or

three of which are of particular interest for us. Taddeo asks whether the specific form derives from the *complexio* of the body or it is something infused by celestial virtues or God ("an ipsa forma specifica sit res facta ex elementis aut sit res infusa a corpori celesti vel a deo," *comm. Isagoge*, fol. 378ra), whether specific form can be the same as the *complexio* ("an ipsa sit idem cum complexione vel non," Ibid.), and whether there is any causal relation between *complexio* and specific form ("an complexio sit causa eius vel non," Ibid.). The solution to the first doubt is that the origin of the specific form depends on two different factors, one being the disposition of the matter (*ratio materiae*), and the other being the influence of the giver (*ratio datoris*). With *ratio materiae*, and with the authority of Avicenna to back him up, Taddeo means that which predisposes the matter to receive one particular form, as for the *complexio* that predisposes the body – form that is the perfection (*perfectio*) of the matter as acquired by the disposition of the *complexio*.[168] Taddeo stresses the difference between predisposition and causality, in so much as the *complexio* only prepares (*disponit*) the thing to receive its form (*ut talem formam suscipiat*),

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god; second, whether this form is one with the *complexio* or not third, whether the *complexio* is cause of this form or not; fourth, whether *complexio* comes before it or not; fifth, whether this form is actuality or not; sixth, whether the actuality of this form comes from similarity or contrary; seventh, whether all things have a property or a specific form, or not; eighth, whether food acts upon us by means of its specific form or not].

[168] Taddeo, *comm. Isagoge*, fol. 378ra: "Ad hoc dico quod productio istius forme inesse dependet a duobus: unum est ratione materie et aliud ratione datoris, et voco primum illud quod disponit rem et materiam ut talem formam suscipiat, unde quando aliqua res a complexione sic disposita est, tunc meretur talem formam suscipere et hoc est quod dicit Avic. cap. de eo quod comeditur et bibitur, nam dicit quod ista forma est perfectio quam acquisivit materia secundum aptitudinem quae fuit ei acquisita ex complexione" [To this I say that the production of the existence of this form depends on two things: one being the disposition of the matter, the other being the influence of the giver. I call the former that which predisposes the thing and the matter so that this very form is acquired, so when a thing is predisposed by *complexio*, it deserves to acquire that very form, and this is what Avicenna says in the chapter on things eaten and drunk; in fact, he says that this form is the actuality that the matter acquired according to its aptitude, that was acquired to it by its *complexio*].

but does not infuse directly the specific form into the thing. The same thing happens for the rational soul of the human being, where the *complexio* predisposes the body to receive it from God, but does not "cause" it to be.[169] The second party involved in the infusion of specific form is the influence of the giver, which Taddeo explains in terms of an external virtue (*virtus exterior*) that is responsible for the apprehension of the specific form, which is the virtue of the heavenly bodies (*alicuius corporis celestis*) or of the constellation (*alicuius constellationis*). This influence finds the matter aptly predisposed to the reception of the specific form (*secundum aptitudinem*), that is thus called specific on account of being shared by an entire species.[170] Taddeo concludes this solution by affirming that specific form is not caused by either the disposition of the matter or the external influence of the stars, but that it is a combination of the two factors, one that is able to bring the potentiality hidden in the being to full actuality.[171] The

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[169] Taddeo, *comm. Isagoge*, fol. 378ra: "ista forma est perfectio quam acquisivit materiam secundum aptitudinem quae fuit ei acquisita ex complexione, et sic notatur quod complexio dedit rei solum preparationem aptam ut recipiat illam formam, et hoc modo preparat complexio corpus humanum ad hoc ut recipiat animam rationalem secundum quod dicit Avi. sexto de naturalibus" [this form is the actuality that the matter acquired according to its aptitude, that was acquired to it by its *complexio*, and thus it is noted that *complexio* gave it only the preparation apt for it to receive that form, and in this way *complexio* prepares the human body so that it may receive the rational soul, as Avicenna says in *De naturalibus*, bk. 6].

[170] Ibid.: "Dator autem huius forme est virtus exterior, scilicet alicuius corporis celestis seu alicuius constellationis qui quedem virtus influit super totam speciem, et ratione speciei est postea diffusa super individua, et propter hoc vocata fuit forma specifica, quare ipsa est in individuo ratione sue speciei" [The giver of this form is an external virtue, i.e. some heavenly body or some constellation that infused a certain virtue over the entire species, and on account of the species it is then diffused on the individuals, and for this it was named specific form, because it is in the individual on account of its species].

[171] Ibid.: "ista forma non est tota ab elementis, sed dispositio sue receptionis, et neque est tota a corpore celesti, sed eius datio vel eductio de potentia ad actum" [this form does not come entirely from the elements, but the disposition of its reception, and neither does it come from the heavenly body, but its coming from potency to act].

process that brings the full potency of the matter to actuality, thanks also to the influence of the stars above, is limited to that particular kind of species, identifiable by those pertinent qualities. Hence the stars can co-operate with a process that had already been laid out by nature in her design.

The parallel with the magnet brings us directly back to Guinizzelli, who affirms that Nature predisposes the heart to fall in love with a woman and to become thus truly noble – that is, to express in full actuality the potentiality always already intrinsic to the species of noble hearts. Guinizzelli is clear in stating that the virtues of the precious stone and those of the magnet (one that we can now define as their "specific forms") come to full actuality thanks to the influence of the stars, only if the matter has been predisposed to the reception of the virtue. The juxtaposition of the lady with the stars tightens the syllogism whereby true nobility is understood as the specific form of the noble heart, an argument that highlights the scientific interests of Guinizzelli. True nobility does not pay attention to lineage or ancestry, as the influence of the stars does not care about the disposition of the mud, because Nature has not planned it accordingly, and thus the nobilitating powers of the heavenly bodies cannot actualize a virtue that was never there to be in the first place. The undisposed mud is therefore compared to the man whom the common people call "gentile" (v. 33), but who is not noble at all:

> Fere lo sol lo fango tutto 'l giorno:
> vile reman, né 'l sol perde calore;
> dis'omo alter: «Gentil per sclatta torno»;
> lui semblo al fango, al sol gentil valore.
>
> [The sun pierces through the mud all day long: it remains vile, nor the sun loses its warmth. A proud man says: "I am noble on account of my ancestry." I compare him to the mud, and the sun to the noble virtues, vv. 31-34]

The nonsensical pride of the man who will never be truly noble, because his heart has never been predisposed to receive the virtue of love, is comparable to that of the soil which fancies itself a diamond or a topaz.

Taddeo's second doubt derives from the relationship between *complexio*, substantial form, and specific form. As explained above, Taddeo does not consider *complexio* to be the substantial form of the subject, except for its functions, and his arguments follow the previous resolution almost literally. Since the *complexio* cannot be considered identical to the substantial form, and specific form is only added to the subject according to the disposition of both matter and heavenly influence, specific form is not caused exclusively by *complexio*; in a certain, operative way, *complexio* is assimilated to substantial form only in the functions of the body, but considered in its true substance, *complexio* is merely an accident with respect to the specific form.[172] Very much related to this issue is the causal relationship between *complexio* and specific form, discussed by Taddeo in the following *quaestio*. Taddeo regards *complexio* as the "habilitating cause" for the apprehension of the specific form (*causa habilitans ad suscipiendum istam formam*), and by referring to the Aristotelian doctrine of causality, he understands specific form as the final cause of the *complexio* (*ista forma est causa finalis complexionis*) – final cause

[172] Taddeo, *comm. Isagoge*, 378rb: "Ad ista questionem dico quod sine dubio ista forma non est idem quod complexio, immo est diversa [...]. Dico quod complexio non est forma substantialis corporis nisi in eo quod illa res operatur, sed in eo quod res illa est substantia et corpus, et complexio accidens" [To this question I say without a doubt that this form is not the same as *complexio*, but it is different... I say that *complexio* is not the substantial form of the body, except for what in which that thing operates, but in what that thing is substance and body, and *complexio* accident].

being the thing to which end the object is caused.[173] Taddeo uses each of these three arguments in order to avoid affirming the dangerous direct relationship between dispositions and qualities deriving from them. Guinizzelli's argument about the causal relationship between love and the noble heart is conducted in a similar way. As is stated in the very first lines of the canzone, it is not enough to have a noble heart if there is no lady to fall in love with, because otherwise the true nobility of the human being has no chance to come out in full actuality. Nor is the simple influence of the beloved lady enough to ennoble the heart, because a certain disposition that has been planned by Nature needs to be present as well. Love is therefore the final cause of the noble heart, predisposed by nature to receive it from the lady, and created with the intention to become fully actualized by the nobilitating powers of *madonna* – or, as Guinizzelli would put it: Nature did not create love before the noble heart, nor the noble heart before love (vv. 3-4).[174]

The poem in which Guinizzelli better unfolds the tight bonds in which love and Nature have written the destiny of the lover is the sonnet *Madonna mia, quel dì ch'Amor consente*. In this poem, Guinizzelli articulates the relationship between his own feelings, desires, and behavior ["core, volere o maniera," v. 2] with the necessity of all things natural, which are as

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[173] Ibid.: "Ad hoc dico quod complexio est causa habilitans ad suscipiendum istam formam, scilicet ista forma est causa finalis complexionis et qualiter ista forma causetur, dictum est supra primo quesito" [To this I say that *complexio* is the habilitating cause to the reception of this form, i.e. this form is the final cause of the *complexio*, and in what way this form is caused, I say above in the first question].

[174] In disagreement with Borsa, *La nuova poesia di Guinizzelli* cit., pp. 171-72, Guinizzelli's "aristocratic" theory does not imply that nobility can be extended to anyone who is predisposed to virtue, but more "naturally," that there is a class of human beings who are entirely and already predisposed to receive the virtue of nobility by Nature, if and only if it does not meet any hindrance in the process.

determined as the motion of the waters towards the seas, the physical disabilities of the blind and of the mute, and the elemental qualities of universe:

> Madonna mia, quel dì ch'Amor consente
> ch'i' cangi core, volere o maniera,
> o ch'altra donna mi sia più piacente,
> tornerà l'acqua in su d'ogni riviera,
> il cieco vederà, 'l muto parlente
> ed ogni cosa grave fia leggera.
>
> [My lady, that day when Love allows me to change feelings, desire, or behavior, or that another woman be more pleasing to me, the waters of all rivers will run upstream, the blind will see, the mute will talk, and any thing heavy will be light, vv. 1-6]

The power of love as embodied by the presence of *madonna* is so strong that the laws of the universe cannot be easily contradicted, since both Love and the stars stated this natural predicament: "Amore e stella fermaron volere / ch'io fosse vostro, ed ànlo giudicato" [Love and the stars secured the desire that I was yours, and so they decreted, vv. 10-11]. The sonnet restates once again how the influence of the stars is decisive in the love for *madonna*: as I have shown in *Al cor gentil*, the external power of the heavens acts in such a way that brings the potentiality inherent in the matter to actuality, meaning that the nobility of the heart is linked to the dialectic between potency and act of the entire physical world. The conclusion frames the decision to love the lady as a godly statement that can be broken only by its higher maker: nothing can ever change in the sentiment of the poet, "se Dio non rompe in ciel ciò c'à firmato" [if God does not break what he has sealed in the firmament, v. 14]. Not only are the stars a fundamental contribution to the actualization of the specific form, but, as Taddeo states, they are also the efficient cause (i.e., the origin of the entire process) to the *complexio* that constitutes the

habilitating cause for the nobility to come to be.[175] In this framework, this sonnet and the canzone *Al cor gentil* are generated from the same idea, by which the webs of the natural world are all directed towards the realization of true nobility, and Love.

Another important parallel between Guinizzelli and Taddeo is with respect to the philosophical explanation of non-natural movement, i.e. movement that operates at a distance, without a direct contact between the mover and the object. This argument is first discussed by Avicenna in his *Canon* (bk. 1, fen I, doct. 1, ch. 4), when he contrasts the principles of Aristotelian physics within the powers of imagination over the body. As noted by Aurélien Robert, Taddeo clearly declares his adhesion to Avicenna's principles of psychological movements in his commentary to the passage, even when there is no agreement with general Aristotelian physics.[176] The historian also notes the long-lasting fidelity to Avicenna's argument in Taddeo's commentary to the *Isagoge Johannitii*, and in particular in his discussion over the movements and accidents of the soul. By firstly noticing that the bodily parts move according to the disposition of the soul, Taddeo proposes the common experimental evidence by which both nerves and muscles are obedient to the principles of fear or pleasure: if the subject experiences something pleasing to them, they will eventually approach the thing; on the contrary, if the subject experiences fear towards something, they will try to escape contact with the object in

[175] Taddeo, *comm. Isagoge*, fol. 346rb: "Causa vero efficiens est motus corporum celorum, nam ipse est causa omnis motus, sicut dicitur in de celo et mundo et octauo physicorum" [the efficient cause is the movement of the heavenly bodies, in fact that is the cause of any kind of motion, as stated in *De celo et mundo* and in *Physica*, bk. 8].

[176] See Aurélien Robert, "Dino del Garbo et le pouvoir de l'imagination sur les corps." *Archives d'histoire doctrinale et littéraire du Moyen Âge* 81/1 (2014), pp. 139-95.

question.[177] The feelings of pleasure and fear are nonetheless two movements of the soul, administered respectively by the *virtus concupiscibilis* and the *virtus irascibilis*, and yet the soul manages to direct the bodily parts accordingly.[178] Taddeo is well aware of this contradiction, since Aristotle clearly states that both mover and moved must be of the same kind for movement to take place. Moreover, there is no movement except that which operates through direct contact, so the influence of the incorporeal substance of the soul over muscles and tendons poses a problem to the laws of nature as explained by Aristotle.[179] Taddeo solves the question by affirming that a non-natural type of movement is at stake in the psychological process, and that is possible because mover and moved object, i.e. the soul and the body, creates a unified substance,

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[177] Taddeo, *comm. Isagoge*, fol. 365vb: "Dico ergo quod cum aliquid apprehenditur quod placet vel displiceat, tunc virtus concupiscibilis vel irascibilis movetur ad capiendum placabile aut ad fugiendum tristabile; et quia iste due virtutes dominantur virtutibus motivis particularibus que sunt in nervis et lacertis totius corporis, tunc precipiunt illis virtutibus ut moveant instrumenta in quibus sunt" [I say that whenever something is apprehended, and it is liked or disliked, then the irascible and desiderative virtues move in order to fetch what is liked, or to flee what is disliked; and since these two virtues are subject to the particular motive powers that are in nerves and tendons of the body, they instruct said virtues to move the instruments in which they are].

[178] On the Platonic-Galenic tripartition of the soul and its reception in Scholastic medicine, see above 2.2 *Matters of Physiology: Galen's Response to Aristotle*, and 2.3 *A Galenic System Towards Reconciliation*.

[179] Taddeo, *comm. Isagoge*, fol. 366ra: "Sed queret aliquis quomodo potest anima, cum sit incorporea, movere musculum qui est corpus, cum dicit Philosophus quod movens et motum debent esse eiusdem generis. Item, cum oporteat omnem motum fieri per contactum, contactus autem non est nisi corporum, sicut dicitur in primo Generationis, quare non videtur quod virtus possit movere ipsum musculum" [But someone will ask in what way the soul, since it is incorporeal, can move the muscle, which is bodily, for, as Aristotle said, what moves and is moved must be of the same genre. Moreover, since it is necessary that any kind of movement is through contact, contact cannot be if it is not between bodily things, as it is said in *De gen. et corr.*, bk. 1; wherefore, it does not seem that a virtue can move said muscle].

as explained through the hylomorphic principle of the *De anima*.[180] But since Taddeo had to come back to the issue later in his commentary, the solution proposed here seems not to be the only viable one.

In his discussion on the accidents of the soul (*Isagoge Johannitii*, ch. 21), Taddeo reinstates his non-Aristotelian stances by affirming that the bodily counterparts to the movements of the soul eschew the rigidity proposed by the Stagirite: when dealing with the unity of body and soul, the physical law of proximity and contact does not apply, and thus the soul, in virtue of its specific powers, can affect the body without direct contact.[181] Taddeo's adhesion to Avicenna's exceptional arguments on the movement of the soul opens a breach in the fixed,

[180] Ibid.: "Unde verus contactus non est inter animam et corpus; et sicut non est ibi verus contactus, sic non est ibi vere motus naturalis, nam vere naturalis motus habet contactus ex utraque parte. Aut dic quid id quod dicit Aristoteles, quod omnis motus fit per contactum, est verum quando motor et mobile non faciunt unam substantiam; in corpore autem animato corpus et anima faciunt unam substantiam et ex his verbis patet solutio ad quesitum secundum" [From which, there is no real contact between soul and body; and as much as there is no real contact, there is not really a natural movement either, since truly a natural movement has contact from either party. Or say what Aristotle says, that any movement happens through contact, it is true whenever both motor and moved do not create one single substance; in the living body however, body and soul create one single substance, and from his words the solution to the second question is clear].

[181] Taddeo, *comm. Isagoge*, fol. 381vb: "Ad quod dico quod anima movet corpus, sed non est motus proprie naturalis, quia anima non tangit corpus et non est proprie motus naturalis nisi ubi est contactus; sed ex parte corporis potest dici naturalis, sed non ex parte eius animae; et per hoc patet solutio ad secundum, nam non est vera actio naturalis inter animam et corpus, neque inter accidentie animae" [To which I say that the soul moves the body, but it is not properly a natural movement, since the soul does not touch the body and there is no proper natural movement if there is no contact; it can be said natural with respect to the body, but it cannot be said that with respect to its soul; and through that the solution to the second question is clear: there is no real natural action between soul and body, and also between accidents of the soul].

natural system of Aristotelian physics and creates a precedent that will be heavily contested in the years to come.[182]

In the canzone *Madonna, il fino amore ch'io vi porto*, Guinizzelli contextualizes this entire physical problem through the medical effects that the lady is able to perpetuate over the faithful lover. As we have seen already in the sonnet *Sì sono angoscioso*, the power of the lady is so exceptional that the lyric voice cannot but state the progressive deterioration of his whole nature. In the first stanza of this canzone, Guinizzelli expresses the unavoidable contrast between the apparent comfort of love and the joyful pain that he receives in return. Love cannot fulfill the desire of the subject, and thus consigns him to great distress. Yet there is a natural necessity that has been laid out by nature that forces the subject to a painful, but gladly-sought-for, desire:

> [...] la natura mia me mina
> ad esser di voi, fina,
> così distrettamente innamorato,
> né mai in altro lato
> Amor non mi pò dar fin piagimento:
> anzi d'aver m'allegra ogni tormento.
>
> [My nature forces me to be so compellingly in love with you, gentle lady, nor can love give me a nobler joy through another woman, vv. 7-12]

This unattainable contrast between desire and fulfillment makes the poet aware of the trap of Love ("inganno," v. 15), where the only viable solution to unrequited love is the eventual death of the lover: "inganno mi simiglia: / ch'Amor, quand'è di propïa ventura, / di sua natura adopera il morire" [this seems deception to me: that Love, when it is not required, leads to death on account of its very nature, vv. 15-17]. The obsession with the beloved lady, and the inability to

[182] See Robert, "Dino del Garbo et le pouvoir de l'imagination" cit., pp. 157-65, which speaks of a systematic refusal of Taddeo's Avicennian thesis. See also Fioravanti, *La filosofia in Italia* cit., pp. 65-71, which notes how the later Scholasticism (as in Gentile of Cingoli) will favor a "physicist interpretation" over Avicenna's.

divert the thoughts towards another object, so that the defect of the cognitive virtues is the trigger to the withering of all vital forces, is already a medical problem, as I have shown above in my commentary to *Sì sono angoscioso*. And yet, although Guinizzelli states that he will no longer sing – "D'ora 'n avante parto lo cantare / da me" [I shan't sing no more hereafter, vv. 85-86] –, he is unable to stop loving the lady – "ma non l'amare" [but not the love, v. 86] –, because of the natural necessity that has been imposed upon the lover.[183] In the following stanza, Guinizzelli reinstates the aphasic condition in which the lady has brought him, and his inability to retell the bitter love ("amore amaro," v. 26) that he is forced to experience ("ciò dire non voglio," [I do not want to tell it, v. 27]). The virtue of the lady is so great that all of his powers are lost in her presence ("stando voi presente, / che perd' ogni vertute" [being in your presence, I lost all of my virtues, vv. 38-39]), since the power of attraction of *madonna* is such that his powers naturally go back to where they originated:

> ché le cose propinque al lor fattore
> si parten volentero e tostamente
> per gire u' son nascute;
> da me fanno partut' e vène 'n voi,
> là u' son tutte e plui.
>
> [because the things that are closer to their maker willingly and rapidly leave to go back where they were born; they leave me and come to you, where all the virtues are and more, vv. 40-44].

The image that conceptualizes the attracting powers of the lady, so extraordinary that the poet is left abandoned and astonished in front of the superiority of *madonna*, is expanded in the

[183] This attack to both sense and free will is clearly states also in the canzone *Tegno·l di folle 'mpres', a lo ver dire*, where Guinizzelli is aware of the impossibility to find satisfaction in his love for the lady, and yet he willingly accepts his martyrdom: "Amor m'à dato a madonna servire: o vogli' i' o non voglia, così este" [Love decided for me to serve madonna: willingly or unwillingly, this is so, vv. 41-42].

fifth stanza, where this phenomenon is compared to that of the magnet. This simile, far from being only a faithful intertext with Sicilian poetry,[184] shows a significant and original scientific point. Guinizzelli explains how in the Northern hemisphere ("in quella parte sotto tramontana," v. 49) there are mountains where the stones have a magnetic power ("li monti de la calamita," v. 50), which are able to infuse the medium of the air with their attractive virtues ("dàn vertud' all'aire / di trar lo ferro," vv. 51-52), but since they are so far away ("ma perch' è lontana," v. 52), they need the help of similar, magnetic stones ("vòle di simil petra avere aita / per farl' adoperare," vv. 53-54), to attract the needle of the compass towards the pole. Although the magnetism of the lady is indeed able to move the poet's virtues towards their natural place, i.e. toward proximity with the lady, her special quality is that she does not need an intermediary, even in the greater distance. The love that emanates from the lady, wherever she may be, has the specific virtue of attracting the subject, and does not decrease because of the distance, nor because of the absence of a medium: "e già per lontananza non è vano, / ché *senz' aita* adopera lontano" [and it is not feeble from afar, that without help it works from far, vv. 59-60; my emphasis]. This last line of the stanza radically overturns a fundamental principle of Aristotelian physics, by affirming that the virtues of the lady can operate in a non-natural way. The same argument is proposed by Taddeo with respect to the movements of the soul, which are able to affect the bodily organs of the human without direct physical contact. In this simile, Guinizzelli is framing the phenomenology of love under the aegis of a physical law that eschews the rigidity

[184] In his commentary (*ad locum* p. 15-16), Rossi refers to Guido delle Colonne, *Ancor che l'aigua* [4.5], vv. 77-79; Piero della Vigna, *Però ch'Amore* [1.19b], vv. 9-11; Mazzeo di Ricco, *Lo gran valore* [19.6], vv. 28-30; but also Monte Andrea, *Poi che 'l ferro*, vv. 1-4, *Mare amoroso*, vv. 198-99, and Francesco Petrarca, *Rvf* 135, vv. 16-19. But especially for Guido delle Colonne, we must note there the necessity of a medium for the magnet to work: "se·nno che·ll'aire in mezzo le 'l consenti" [if not thanks to the medium of the air that makes it possible, v. 80].

of an Aristotelian natural system and conflates the spiritual virtues of his lady with the incorporeal powers of the soul. The lady therefore acts as the soul over the rest of the body, in the way that is explained by Avicenna, Taddeo's (and, possibly, Guinizzelli's) source. Love is once again reframed as one of the accidents of the soul (*accidentia animae*)[185] that can modify the corporeal substance of the human, in a trajectory that will produce a long tradition of poetical commentaries, until at last we reach Guido Cavalcanti's *Donna me prega* and Dante Alighieri.

In the course of this chapter, I investigated the presence and reflections of Galenic medicine in the poetry of the 13th century, with a particular focus on the scientific engagement of Guido Guinizzelli. Guido's relationship with previous literary history, and the questions of contemporary medicine, gives us a glimpse into the fibers of his intellectual development. Although my hypothesis of an early interest for Taddeo Alderotti's medical career might have been fueled, as I suggested, by their common attendance of Re Enzo during his imprisonment in Bologna, I do not want to limit my investigation to a direct, positivistic historical knot. It might have been possible for both Guinizzelli and Alderotti to exchange ideas during those years, but we must be careful about assigning a specific, intertextual debt between the two. As Siraisi reminds, Taddeo started to write down his commentaries when he was well into his academic career. His commentary on Johannitius' *Isagoge* was begun probably a little bit before his commentary on Hippocrates' *Aphorisms*, which Taddeo himself records having been started "in

[185] And remember what Taddeo had said on the accidents of the soul, *comm. Isagoge*, fol. 381vb: "nam non est vera actio naturalis inter animam et corpus, neque inter accidentie animae" [there is no real natural action between soul and body, and also between accidents of the soul].

nono anno [sui] regiminis" (in the ninth year of his career).[186] Therefore, Taddeo's medical and philosophical writing were not completed before the death of Guinizzelli in 1276, and we have no data on the progress of Taddeo's already-erratic academic writing. If a porous exchange happened, it might have been possible during Taddeo's years of teaching, that begun about 1264, which would not be surprising for an author like Guinizzelli, always receptive and curious regarding the intellectual history of his times.

[186] This tentative chronology is based on Siraisi, *Taddeo Alderotti* cit., pp. 27-42. The quotation is at pp. 31-32n, and it is from Taddeo's commentary on the *Aphorisms*, at fol. 194v (see here above p. 85n for complete bibliographical information).

Chapter Three

All Things Natural: Ethics and the Body Between Guido, Cino, and Dante

3.1 Introduction

In chapters one and two, I analyzed the ways in which an Aristotelian thread in physiology can be detected in the tropes of Giacomo da Lentini and the other poets of the Staufen court, the repercussions of Medieval Galenism in the poems of the Sicilian-Tuscans with respect to the communication between cognitive faculties, and the influence of medical philosophy in Guido Guinizzelli's poetry, through the pivotal role of Taddeo Alderotti's Avicennism. In this last chapter, by bridging the gap between Aristotle's and Galen's investigations in the field of moral, I want to investigate the connections between ethical philosophy and medical science, and the ways in which these two branches were received by the intellectual debates of the end of the 13th century.

Aristotle's *Nicomachean Ethics* had a long-lasting influence on moral philosophy, especially in its understanding of the genesis of moral actions, and the psychological act of choice. While responding to the ethical systems of both Socrates and Plato, Aristotle's firm belief that the rational soul of the human being has control over the passions and desires of the sensitive soul presents an engaging theory of human control and education. On the other hand, Galen's short treatise *Quod animi mores corporis temperamenta sequantur* offers a determinist reading of human acts that is coherent with the final stages of Galen's naturalism. While responding to his philosophical and scientific predecessors (especially Plato, Aristotle, and the Stoics), Galen's medical view is a strong rejection of anything that is not "natural," i.e. anything that does not pertain to the biological sphere.

Although Galen's treatise of his maturity will not be translated into Latin until the first half of the 14th century, I will show how Galen's medical perspective was associated with a radical "somatic determinism" throughout the philosophical debates of the 13th century. This

perspective will be read against the grain of Taddeo Alderotti's vernacular translation of an Alexandrian epitome of Aristotle's *Nicomachean Ethics*, whose genesis will be explored in the following pages. While critics have underlined how Taddeo's translation is a decisive contribution to the emerging intellectual communal bourgeoisie of the 13th century, I will focus on how the ethical problems surfacing from the Aristotelian epitome have repercussions in the medical field as well, and how Taddeo's early interest for the dissemination and vernacular translation of the moral treatise testifies to his role in discussing some of the hottest topics of his times.

The debates over the relationship between body and soul in both the ethical and medical philosophy of the 13th century are not detached from the coeval tensions in lyric poetry. Medieval Italian poets of the 13th century struggle between an understanding of passion as a coercive power over the free will of the soul and the instances of control that human reason can operate over the desires of the heart. After an analysis of the ethical philosophy of Aristotle, and the mature determinism of Galen's naturalism, I will see how these two trends are present in Taddeo Alderotti's *Etica volgarizzata*. Taddeo's *Etica* shows an interesting take on the debate regarding moral guidance and bodily determinism, so much that the lexical choices of his translation in the vernacular are revealing of an original interpretation of the issue, from a medical and philosophical point of view. The interplay between reason, will, and *liberum arbitrium* is in fact one of the greatest topics of debate in the 13th century, and one which colors a multitude of disciplinary fields.[1]

[1] See J.B. Korolec, "Free Will and Free Choice," in *The Cambridge History of Later Medieval Philosophy*, eds. N. Kretzmann, A. Kenny, J. Pinborg, E. Stump (Cambridge: Cambridge University Press, 1982), pp. 629-41, while being substantially a summary of Odon Lottin, *Psychologie et morale aux XIIe et XIIIe siècles*, 6 vols. (Louvain: Abbaye de Mont César, 1942-

By reading the exchanges between three of the main voices at the turn of the century, I will briefly show how Guido Cavalcanti, Dante Alighieri, and Cino da Pistoia present the same tensions and intellectual dynamics of the surrounding fields, and how they translate the conundrum of the relationship between body and soul into their debates over love and reason.

3.2 Aristotle's Hopes for a Guiding Reason

Aristotle's program for a practical philosophy of morals starts with the assumption that the search for the good is a political act (Gk. ἡ πολιτικὴ, Lat. civilis; *Et. Nic*. I 2, 1094 a 27)[2]: what is best for one human being is best for the community as a whole, and the individual good is therefore subsumed into the fibers of the entire community. This investigation into the threads of the ethical field is "practical" also in the sense that it does not concern knowledge in general (Gk. γνῶσις, Lat. cognitio), but concrete action (Gk. πρᾶξις, Lat. actus) [*Et. Nic*. I 3, 1095 a 6]. As noted by René Antoine Gauthier and Jean Yves Jolif in their edition to the text, Aristotle's epistemological program is necessarily a form of wisdom, not a kind of scientific investigation

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60), is a useful survey on the issue from a theological and Scholastic point of view, albeit lacking any discussion of the topic in medicine or the vernacular culture.

[2] As for the previous chapters, Aristotle's *Nicomachean Ethics* is quoted from William David Ross's translation in *The Complete Works of Aristotle: The Revised Oxford Translations*, ed. J. Barnes (Princeton, NJ: Princeton University Press, 1984), with chapter divisions from the Didot edition *Aristotelis Opera omnia graece et latine*, and lines from the Bekker's *Aristotelis Opera*, as per usual. Occasional quotations from the original Greek text may occur, and they are all from the Clarendon editions («Oxford Classical Texts»). Latin text from the *recensio pura* completed by Robertus Grosseteste ca. 1246-47, on Burgundius of Pisa's 12th-century translation: *Ethica Nicomachea. Translatio Roberti Grosseteste Lincolniensis ("recensio pura" – Burgundi translationis recensio)*, in *Aristoteles Latinus*, vol. XXVI, fasc. 3, ed. R.A. Gauthier (Leiden: Brill, 1972), hereafter simply *Et. Nic*.

nor even a dialectical method, but a separate and new type of investigation.[3] As explained during the course of the entire treatise, the knowledge of what Good is does not suffice if one wants to act rightfully and seek the good.[4] Moral acts are essentially practical in being indissolubly linked to the concrete actions performed, and the attitude with which these actions are carried out. For this reason, Aristotle's ethical philosophy is an extensive research into the processes that lead a human being to act morally, and the psychological underpinning of said choices.

This investigation cannot but start from the individuation of the research field. Human virtue brings forth human happiness, but Aristotle does not discuss the virtue "of the body, but that of the soul", since happiness is "an activity of the soul" (*Et. Nic*. I 13; 1102 a 16-18). According to Aristotle, any assumption made in ethical philosophy cannot eschew the psychological problem of the functions of the soul. In the course of the treatise, and particularly in these first few books that deal with the genealogy of the moral act, Aristotle lays out a description of the functions of the soul that is not as articulated as that of the dedicated treatise *De anima*.[5] The first distinction that Aristotle clarifies is between a rational and an irrational part

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[3] See Aristotle, *L'Éthique à Nicomaque. Introduction, traduction et commentaire*, eds. R.A. Gauthier, J.Y. Jolif, 2 vols. (Louvain-Paris: Publications Universitaires de Louvain, 1970), vol. 2: *Commentaire*, p. 25.

[4] The immediate reference here is obviously Plato's idealism, that is directly confronted in *Et. Nic*. I 6, 1096 a 11-1097 a 14.

[5] According to the scholarly investigations started with the paramount work by Werner Jaeger, *Aristoteles, Grundlegung einer Geschichte seiner Entwicklung* (Berlin: Weidmann, 1923), the *Nicomachean Ethics* seems to be placed during the last, Athenian period of Aristotle's career, and therefore it is his definitive take on moral philosophy. François Nuyens, *L'évolution de la psychologie d'Aristote* (Louvain: Éditions de l'institute supérieur de philosophie, 1948), especially pp. 189-93, proposes that the *Ethics* precedes the *De anima*, and therefore it does not present the same organic psychological theory of the dedicated treatise. See also Aristotele, *Etica Nicomachea*, ed. C. Mazzarelli (Milan: Bompiani, 2000), pp. 40-44.

of the soul. The irrational part is dedicated to those functions that could be defined as natural faculties, i.e. nutrition, growth, and the other powers common to all living beings. The other main irrational power within the soul is very complex to define, and Aristotle himself struggles to give a satisfactory answer in philosophical terms. The first quality that the Stagirite individuates in this irrational part of the soul is the communicative power that it has with the rational part. The discourse is not formulated in definite, philosophical statements, and the lexicon used by Aristotle testifies to the provisional nature of this definition. This other "irrational element" of some sort (Gk. ἄλλη τις φύσις τῆς ψυχῆς ἄλογος εἶναι, Lat. alia quedam natura anime irracionalis) can be predicated to "shar[e] in a rational principle" (Gk. μετέχουσα μέντοι πῃ λόγου, Lat. participans quidem aliqualiter racione), and therefore to be in connection with the rational powers of the soul (*Et. Nic*. I 13; 1102 b 14-15).

The dynamics delineated in the following lines are those of a tension and a struggle between this irrational, extraneous part of the soul and the reason against which it relentlessly fights. The images used by Aristotle are certainly very evocative (and somehow reminiscent of a similar explanation found in Plato's *Phaedrus*), but they do not provide the reader with enough elements to clarify what is the actual relationship between these two parts, and how they can interact within the one subject.[6] Aristotle goes on to explain that this struggling part of the soul can indeed be subject to the powers of reason, and that the stronger the rational faculties are in the human being, the more effective this guidance will be.[7] Towards the end of this section, this

[6] Galen uses a similar argument in support of his own ethical psychology in the short treatise *Quod animi mores*, on which see below 3.3 *Towards A Galenic Somatic Determinism*.

[7] See *Et. Nic*. I 13, 1102 b 26-28: "at any rate in the continent man it obeys reason—and presumably in the temperate and brave man it is still more obedient; for in them it speaks, on all matters, with the same voice as reason."

irrational part is explicitly defined as "the appetitive and in general the desiring element" of the soul (Gk. τὸ δ' ἐπιθυμητικὸν καὶ ὅλως ὀρεκτικὸν, Lat. concupiscibile vero et universaliter appetibile), one that must "liste[n] to" reason, and "obe[y] it" (*Et. Nic*. I 13; 1102 b 30-33).[8] This guiding force that reason is supposedly able to use to administer the unbridled movements of the desiderative faculty is once again explained via the use of evocative language and similes, whereby concupiscence is said to be "persuaded by reason," and to have "a tendency to obey as one does one's father" (*Et. Nic*. I 13; 1102 b 31-1103 a 3).

Although fascinating and overall convincing, Aristotle nevertheless falls short of clearly demonstrating how he reaches these conclusions, and how the operations of the different parts of the soul can be philosophically described without recourse to human tropes of guidance, education, and fatherly obedience. This approach is however coherent with the practical qualities of moral philosophy defined at the beginning of the treatise, which does not aim to provide an impossible scientific explanation of human action.[9] The guiding faculty of reason over the instinctual parts of the soul speaks volumes of the attitude that Aristotle has about the soul at this point of his intellectual development. In this vein, both Gauthier and Nuyens ascribe this treatise

[8] Note that το ἐπιθυμητικόν is already a Platonic term for the appetitive soul, in *Timaeus* 69a-70d, eventually used by Galen as well in his medical psychology. See 2.2 *Matters of Physiology: Galen's Response to Aristotle*, pp. 109-42.

[9] See *Et. Nic*. I 3, 1094 b 19-27: "We must be content, then, in speaking of such subjects and with such premisses to indicate the truth roughly and in outline, and in speaking about things which are only for the most part true and with premisses of the same kind to reach conclusions that are no better. In the same spirit, therefore, should each of our statements be received; for it is the mark of an educated man to look for precision in each class of things just so far as the nature of the subject admits: it is evidently equally foolish to accept probable reasoning from a mathematician and to demand from a rhetorician demonstrative proofs."

to the "instrumentalist phase" of Aristotle's psychology,[10] whereby the soul is described as having control over the more bodily and instinctual elements of the human being, and the body is conceived merely as a passive instrument of the rational part. This approach is even more evident in a later section of the book, where Aristotle discusses the nature and role of friendship. In analyzing the different forms of friendship with respect to power unbalance, Aristotle affirms the parallel between forms of rulership with that of soul and body, since "where there is nothing common to ruler and ruled, there is not friendship either, since there is not justice; e.g. between craftsman and tool, soul and body, master and slave; the latter in each case is benefited by that which uses it, but there is no friendship nor justice towards lifeless things" (*Et. Nic*. VIII 11; 1161 a 32-1161 b 3).

The instrumentalism of this stage in Aristotle's philosophy of the soul states that the relationship between body and soul is similar to that of a soulless tool used by the life-bearing force of the *psychê*. Although central in the development of moral philosophy, this attitude towards the psychology of the ethical act describes the internal movement of the subject as a mere similitude with forms of government and artistic use, without explaining further the repercussions for a general anthropological theory. Aristotle is therefore affirming the unwavering belief that the soul has power over the body, and that the body has nothing in common with the substance of the soul. By putting at the center of his moral philosophy the controlling power of reason over the concupiscence of the irrational part, Aristotle is also

[10] See Nuyens, *L'Évolution de la psychologie d'Aristote* cit., and Gauthier-Jolif's *Commentaire* to the *Ethics* cit. Nuyens distinguishes between three periods in Aristotle's psychology: a strong Platonic influence at first, where the soul is simply trapped into the prison of the body; a second "instrumentalist" phase, where the soul is the guiding and active principle over the body; and a final "hylomorphic" phase, where the relationship between soul and body is that of form and matter, as presented in the *De anima*.

maintaining a clear division between the realm of the *psychê* and that of the *sôma*, where the latter is indissolubly connected with the irrationality of desire and matter.

As we have seen previously in analyzing the Platonic philosophy of the soul in *Timaeus*,[11] for Aristotle too the communication between the rational and the irrational faculties of the human being is two-fold. In being theoretically under the aegis of reason, the appetitive soul shares in some way the features of the rational soul. While not being directly an active participant in the unfolding of virtue, passions and desire are the playground on which reason can operate its virtuous control and management.

The discourse has other psychological and ethical repercussions when Aristotle reaches the analysis of passions, and how said passions may contribute to the genesis of the moral action. In virtue of their lexical proximity with the semantics of passivity (Gk. τὰ πάτη, πάσχειν), Aristotle understands passions as something by which humans are acted upon, for "in respect of the passions we are said to be moved" (*Et. Nic*. II 5; 1106 a 4-5). These premises are in the back of Aristotle's mind when he deals with voluntary and involuntary actions. At the beginning of book three, Aristotle distinguishes between voluntary and involuntary actions by identifying the principle at the origin of the act itself. Involuntary, or better "compulsory" (Gk. βίαιον, Lat. violentum) is the act "of which the moving principle is outside" (*Et. Nic*. III 1; 1110 a 1-3), as opposed to when "the principle that moves the instrumental parts of the body in such actions" is internal, for "the things of which the moving principle is in a man himself are in his power to do or not to do" (*Et. Nic*. III 1; 1110 a 15-18). The distinction is more complicated than it seems at first sight, since many actions can participate to both categories, depending on the perspective at play in one exact moment. An action might seem compulsory to the subject experiencing the

[11] See 2.2 *Matters of Physiology: Galen's Response to Aristotle*, pp. 109-42.

force of compulsion, while being in abstract completely voluntary when one considers the totality of his will.[12] Such is, in Aristotle's view, the perspective on passions and desires, since they involve the concupiscence and pleasures of the human being at stake. If one should consider any actions that bring pleasure to the subject as compulsory, we would reach the absurd conclusion that *all* actions are compulsory, for every human being acts towards a pleasure principle.[13] Aristotle is therefore not willing to accept this conclusion, while affirming the independence of reason in matters in which desires and passions are involved.

Moral act is thus a choice (Gk. προαίρεσις, Lat. eleccio) that is chosen voluntarily, even though not in the sense of compulsory as seen before. Aristotle tentatively proposes a definition by which choice "seems to be voluntary, but not the same thing as voluntary" (*Et. Nic*. III 2; 1111 b 6-8), since it is not something "done in the spur of the moment" (Ibid.; 1111 b 9). Moreover, choice "is not common to irrational creatures," which are moved solely by the irrational components of desires and compulsion (Ibid.; 1111 b 12-13). Once again, while discussing the nuances of the psychology of choice, Aristotle reinforces the idea that voluntary/compulsory actions comprise also those dictated by instincts and passions. The conclusion to his first investigation on choice is that it is something that "involves reason and

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[12] *Et. Nic* III 1, 1110 b 1-5: "But the things that in themselves are involuntary, but now and in return for these gains are worthy of choice, and whose moving principle is in the agent, are in themselves involuntary, but now and in return for these gains voluntary. They are more like voluntary acts; for actions are in the class of particulars, and the particular acts here are voluntary." See also Susan Sauvé Meyer, "Aristotle on the Voluntary," in *The Blackwell Guide to Aristotle's* Nicomachean Ethics, ed. R. Kraut (Malden-Oxford: Blackwell, 2006), pp. 137-57.

[13] *Et. Nic*. III 1, 1110 b 11-15: "it is absurd to make external circumstances responsible, and not oneself, as being easily caught by such attractions, and to make oneself responsible for noble acts but the pleasant objects responsible for base acts. The compulsory, then, seems to be that whose moving principle is outside, the person compelled contributing nothing."

thought (Gk. μετὰ λόγου καὶ διανοίας, Lat. cum racione et intellectu)," a sort of chain of deliberated steps that escort the judgment to its final steps.[14]

When guided by reason, choices then are accompanied by wish (Gk. βούλησις, Lat. voluntas), and the final object of wish is the good. As we have seen in the analysis of choice, wish can be difficult to ascertain, since something can either be good in itself, or simply appear as good. A rightful and wise mind will be able to identify in itself a moral wish, directed towards the good, while a wicked disposition will not be able to discern between pleasure and the good in itself.[15] Therefore, it is compelling for reason to be educated and to guide the choices of the human being, in order to avoid the mere pursuit of pleasures disguised as good, and to seek out what is the ultimate wisdom of the subject. As explained later on in the treatise, the connection between this series of psychological elements is what constitutes the ground for moral actions to happen. Acts are bound to exist in the combined actions of sensation (Gk. αἴσθησις, Lat. sensus), thought (Gk. νοῦς, Lat. intellectus), and desire (Gk. ὄρεξις, Lat. appetitus) (*Et. Nic.* VI 2; 1139 b 17-18). Since sensation is what guides both rational and irrational beings, it cannot be the specific principle upon which moral actions are performed. Therefore, a true moral choice is dependent upon the combined powers of a true statement arising from a right intellect, and a rightful desire that inclines the subject to choose. Choice is thus "either desiderative thought (Gk.

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[14] See John McDowell, "Some Issues in Aristotle's Moral Psychology," in *Ethics* («Companions to ancient thought», vol. 4), ed. S. Everson (Cambridge: Cambridge University Press, 1998), pp. 107-28.

[15] *Et. Nic*. III 4; 1113 a 25-31: "that which is in truth an object of wish is an object of wish to the good man, while any chance thing may be so to the bad man, as in the case of bodies also the things that are in truth wholesome are wholesome for bodies which are in good condition, while for those that are diseased other things are wholesome—or bitter or sweet or hot or heavy, and so on; since the good man judges each class of things rightly, and in each the truth appears to him."

ὀρεκτικὸς νοῦς, Lat. appetitivus intellectus) or intellectual desire (Gk. ὄρεξις διανοητική, Lat. appetitus intellectivus)" (Ibid.; 1139 b 4-5), a combination between the action of both reason and desire when reciprocally guided and sustained. By affirming that this principle is the human being – Gk. καὶ ἡ τοιαύτη ἀρχὴ ἄνθρωπος, Lat. et tale principium, homo (Ibid.; 1139 b 5) –, Aristotle reaffirms the unwavering conviction that desire and reason shape the moral horizon of the human, and that the communication of intellect and some form of irrational desire is what constitutes the specific human virtue of moral choice.[16]

So far so good, it seems. But it seems that Aristotle does not really tackle at length the issue of miseducation. In the course of the treatise, the Stagirite drops here and there hints at the possibility according to which humans are not, in fact, all disposed to the guidance of reason, but the real causes of that, or even a thorough analysis of its implications, are left unresolved. In wondering whether happiness is something that "is to be acquired by learning (Gk. μαθητόν, Lat. discibile) or by habituation (Gk. ἐθιστόν, Lat. assuescibile) or some other sort of training (Gk. ἄλλως πως ἀσκητόν, Lat. aliter qualiter exercitabile), or comes in virtue of some divine providence (Gk. κατὰ τινα θείαν μοῖραν, Lat. secundum quandam divinam particulam) or again by chance (Gk. διὰ τύχην, Lat. propter fortunam)" (*Et. Nic*. I 9; 1099 b 9-10), Aristotle reaffirms how happiness is gained through the application and exercise of virtue, and that it is able to make human beings "godlike and blessed" (Ibid.; 1099 b 17-18). Virtue, and consequently true happiness, is "common to many (Gk. πολύκοινον, Lat. multum commune)" (Ibid.; 1099 b 18),[17]

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[16] This is the principle at stake when Aristotle argues for moral responsibility, on which see Jon N. Moline, "Aristotle on Praise and Blame." *Archiv für Geschichte der Philosophie* 71/3 (1989), pp. 283-302.

[17] I distance myself here from Ross's translation, who reads "very generally shared," who does not fully render the sense of either the Greek or the Latin.

but not for everybody, for those who are "maimed (Gk. πεπηρωμένοις, Lat. orbatis) as regards excellence" may never achieve the highest level of virtue and happiness.[18] Aristotle's lexical choice in this passage is relevant to the relationship between body and soul with respect to the acquisition of virtue. The pluperfect participle middle-passive of the original Greek has first a bodily connotation of being "mutilated," or even "castrated" in the flesh, and then a figurative sense of being "incapacitated" for some action.[19] Aristotle is signaling the constitutional inability of following virtue, by means of some bodily or material deprivation that blocks the subject in his or her path to excellence.

Aristotle is frustratingly spare in details regarding what kind of defects in the disposition might prevent the acquisition of virtue, but he comes back to the issue when he deals with bad moral states of "vice (Gk. κακία, Lat. malicia), incontinence (Gk. ἀκρασία, Lat. incontinencia), brutishness (Gk. θηριότης, Lat. bestialitas)" (*Et. Nic*. VII 1; 1145 a 16-17).[20] These wicked dispositions have some tight relationships with bodily defects and material states, as Aristotle argues. In the case of brutishness, while the Stagirite underlines that it is a condition rare in civilized human beings, and it is more often found in barbarians, he also mentions how it can be

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[18] Dante, *Convivio* I i 2-6, gives a thorough (and much better) distinction of these impediments, first distinguishing between causes internal and external to the human being. For the former, the subdivision is between impediments of the body and those of the soul; for the latter, the subdivision tackles the issue of necessity, or that of indolence. It is evident that Dante is expanding upon the figurative sense of Lat. ORBATUS in his analysis.

[19] Henry George Liddell-Robert Scott, *A Greek-English Lexicon* (Oxford: Oxford University Press, 1843), s.v. πηρόω, "maim, mutilate." With Lat. ORBO, "deprive, bereave," Grosseteste follows the figurative sense of deprivation in Greek.

[20] This list will sound familiar to the reader of Dante, who uses the exact same triad to refer to "those three dispositions / that strike at Heaven's will" (*If*. 11.80-81).

"produced by disease or deformity (Gk. καὶ διὰ νόσους καὶ πηρώσεις, Lat. propter egritudines et orbitates)," therefore utilizing a morphological variation of the same word used in book one of the treatise to refer to the bodies incapacitated to virtue (Ibid.; 1145 a 30-33). These brutish dispositions are able to render pleasing something that is not, either in a general or subjective sense, as in the case of cannibalism or some other mental illnesses. This change in perspective can happen "by reason of deformities (Gk. διὰ πηρώσεις, Lat. propter passiones),"[21] or "of habits (Gk. δι' ἔθη, Lat. propter consuetudines)," or even "of bad natures (Gk. διὰ μοχθηρὰς φύσεις, Lat. propter perniciosas naturas)" (*Et. Nic*. VII 5; 1148 b 17-18). The analysis of types of incontinence then focuses on depravities caused either by nature, or as a result of habit. Aristotle refuses to place them under the umbrella of incontinence per se, since they are dispositions "beyond the limits of vice, as brutishness is too" (Ibid.; 1149 a 1), and instances of incontinence only by analogy to the other distinctions. Such is also the case of mental illness like foolishness, thoughtfulness, madness, either caused by natural defects, or morbid states like epilepsy (Ibid.; 1149 a 9-12).

These examples reinforce the idea that dispositions that prevent the perfect acquisition of virtue by means of a controlled guidance of reason can have causes that are not under the aegis of the human being, and are therefore bound to exist because of the bodily or natural character of the subject. Aristotle's analysis thus opens an interesting window onto the effects of matter upon the faculties of reason, and leaves the readers to wonder if this approach might undermine the entire system of his ethical philosophy. If, as it were, the body has indeed the capacity of controlling the workings of the rational soul, and thus preventing the perfect system by which the

[21] Robert Grosseteste's rendition of the Greek is here obviously distant from the original, and might be due to textual transmission. However, I am not able to provide definite evidence of what caused diffraction in this passage.

human mind is created to be able to direct the instinctual desires of the body, then the entire instrumentalism that I delineated at the beginning of this section would not work. The body could constitute itself as an anarchical force that resists the rulership of reason. The relationship between body and reason could be more complicated than the one offered in Aristotle's *Ethics*, and the guiding force might well take more into the account the material instances of the body. On these premises, Galen's naturalism will propose a different ethical system, in which the relationship is inverted, and the bodily temperaments are indeed the basis for the workings of the soul. Although Galen's response in *Quod animi mores* is much more complex, and takes into account the moral philosophies of other authors besides Aristotle (especially the Stoics), his short treatise could well serve as an active response to the questions left unanswered by the Stagirite, by taking his own natural conclusions to the extremes.

3.3 Towards a Galenic Somatic Determinism

Galen's short treatise *Quod animi mores corporis temperamenta sequantur* (Ὅτι ταῖς τοῦ σώματος κράσεσιν αἱ τῆς ψυχῆς δυνάμεις ἕπονται) is commonly considered to be a later work of his maturity, written after "the plague of a few years ago" (*Quod animi mores* 5; K IV: 788), that is, the Antonine Plague of 165-180 AD.[22] In this treatise, Galen argues that "[t]he faculties of the soul depend on the temperaments[23] of the body" (*Quod animi mores* 1; K IV: 767), and seeks to

[22] See Athéna Bazou, "L'influence du traité ὅτι ταῖς τοῦ σώματος κράσεσιν αἱ τῆς ψυχῆς δυνάμεις ἕπονται aux écrivains postérieurs," in *Perilepsis Anakoinoseon. 11ème Congrès international d'études classiques*, Kabala, 24-30 août 1999 (Athens: Parnassos Literary Society, 2001), pp. 108-20, ascribed the treatise to the years after 193 AD. Eng. transl. by P. Singer, in *Galen's Selected Works*, ed. P. Singer (Oxford-New York: Oxford University Press, 1997), pp. 150-76, with slight modifications.

[23] I distance myself from Singer's translation of Gk. κράσις as "mixtures," and often prefer to use "temperament" or "complexion" instead, as elsewhere in this dissertation.

understand both the medical and the ethical implications of such a statement. During the course of his work, Galen heavily relies on the teachings of Plato (but not the Platonists of his time, whom he disparagingly criticizes), Aristotle's biological works, and Hippocrates, while also being in communication with the Stoic school of Chrysippus and Posidonius. Galen's philosophical investigation is apparently at the threshold of both medicine and moral philosophy, in taking both the sphere of the body and that of the soul into account. The treatise was not translated into Latin before Nicholas of Reggio, who during the first half of the 14th century made many translations at the Angevin court in Naples,[24] but I will argue that the fundamental tenets of Galen's reasoning are nonetheless accessible through his other works, and also those of Aristotle. As we will see later in this section, the Latin West did not have to wait until Nicholas' translation to know how Galen's somatic determinism[25] would pose serious issues to an ethical system in which the rational power of the soul is understood as separate and immaterial.

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[24] See Richard J. Durling, "A Chronological Census of Renaissance Editions and Translations of Galen." *Journal of the Warburg and Courtauld Institutes* 24 (1961), pp. 230-305 (*Quod animi mores* at p. 295); Christina Savino, "Le traduzioni latine del *Quod animi mores* di Galeno," in *Sulla tradizione indiretta dei testi medici greci: le traduzioni, Atti del III seminario internazionale di Siena*, Certosa di Pontignano 18-19 settembre 2009, eds. I. Garofalo, S. Fortuna, A. Lami, A. Roselli (Pisa: Serra, 2010), pp. 169-180); Ead., "La ricezione del *Quod animi mores* di Galeno fra Medioevo e Rinascimento: traduzioni, edizioni e commenti." *Bruniana e Campanelliana* 17/1 (2011), pp. 49-64. On the figure of Nicholas of Reggio and his activity as translator, see Vivian Nutton, "Niccolò in Context." *Medicina nei secoli* 25/3 (2013), pp. 941-56.

[25] With somatic determinism (*determinismo somático*), I follow José María López Piñero's interpretation of Galen's naturalism, according to whom Galen reduces the soul only to its material components, which predetermine both free will and human responsibility. See José María López Piñero-José María Morales Meseguer, "Los tratamientos psíquicos anteriores a la aparición de la Psicoterapia moderna." *Asclepio* 18-19 (1966-67), pp. 457-81, especially pp. 466-67. See also Luis García Ballester, *Alma y enfermedad en la obra de Galeno. Traducción y comentario del escrito* Quod animi mores corporis temperamenta sequantur (Valencia-Granada: Cuadernos Hispanicos de Historia de la Medicina y de la Ciencia, 1972), especially pp. 97-116, who uses López Piñero for his own interpretation of Galen's "naturalismo corporalista."

As we have seen already, the main thesis of the treatise is clearly stated at the beginning of the work. Galen's argument is not an utter novelty in his scientific investigations, and it is something that he has "confirmed on more than one occasion" (*Quod animi mores* 1; K IV: 767). In the course of the book, Galen relies on both his medical experience, but also on the opinions of his predecessors. Galen's doxographical approach does not eschew an idiosyncratic interpretation of the sources, and seeks out also a careful selection of the most appropriate evidence in support of his argument. Galen's points seem to be directed at the ethical systems of both the Platonists and the Stoics of his times, but he often offers questions and critiques that could be fruitfully used in response to Aristotle's moral philosophy as well, even when not explicitly mentioned.[26]

Galen's inquiry starts off from the common experience of differences in behaviors, especially among little children. Since each child shows innate tendencies and peculiarities, it must follow that "the 'substances' of children's souls differ from each other to the same extent as their actions and affections" (*Quod animi mores* 2; K IV: 769). Galen immediately creates a direct relationship between substance (οὐσία) of the soul, which he understands also as its nature (φύσις), and the activities thence deriving.[27] This articulation is explained in terms of "relationism," i.e. Galen proposes that the faculties of the soul arise "*in relation to* the event caused" (Ibid.); therefore, the substance of the soul has to be explained in terms of the activities

[26] In his own *De libris propriis*, Galen himself reads the *Quod animi mores* as a medical work influenced by Platonic philosophy, Aristotelian science, and Hippocratic thought, by including it in ch. 14, among the other more philosophical works. See Ballester, *Alma y enfermedad* cit., p. 121.

[27] *Quod animi mores* 2 (K IV: 769): "And it is clear that the word 'nature' has the same sense in a discussion of this kind as 'substance'."

that the soul presents. The soul is what it is in relation to the faculties administrated, and the actions it performs: for instance, the rational soul is understood by means of the activities realized by it, such as perception, memory, and understanding. Characteristic features that are seen in the behavior of children therefore arise from different substances/natures, whereby each individual has a specific individuality that cannot be overestimated in the course of a medical and ethical investigation.

As we have seen in the previous chapter, Galen's psychology identifies three parts in the human soul, based on the Platonic tripartition.[28] Rational, irascible, and appetitive souls are located in their respective organs of brain, heart, and liver. Each of the organs dedicated to the administration of the specific faculties of the soul therein abiding has its own particular substance, which Galen takes in Aristotelian terms of matter and form (*Quod animi mores* 3; K IV: 773). Form is to be understood as the "principle which constructs the very body of physical bodies" (Ibid.), thus proposing an interpretation of the soul as the *substantial form* of the body, i.e. the thing that makes the soul what it is. Bodies are composed of matter and form, and while matter is the combination of the four elemental qualities, form has to be necessarily "the temperament of these qualities," its own *kràsis*, since its nature is dependent upon the particular arrangement of the elements. Matter is the actual material components, while the form is the assessment of these elemental qualities, and the substance deriving from their combination.

Galen's line of reasoning therefore is based on Aristotelian psychology and metaphysics, and poses a daunting question to the Platonic idea of an immortal rational faculty. If the soul is indeed the temperament of hot, cold, wet, and dry qualities, it cannot be devoid of its bodily parts. Galen is perfectly aware of how his proposition would throw all statements of an immortal

[28] See 2.2 *Matters of Physiology: Galen's Response to Aristotle*, pp. 109-42.

and divine nature of the soul away with its proponents, and he shifts between shady mockery, and utter respect for Plato himself.[29]

Time and time again, direct medical experience and philosophical history are the backbones of Galen's reasoning on this point. While stating that he does not feel confident enough in his ability to give a definite answer on such metaphysical questions like the mortality or immortality of the soul,[30] Galen conducts two parallel arguments in which he takes into consideration both premises, while reaching the same conclusions. By taking for example the effects that qualitative alterations of the brain have upon the reasoning activities of the soul, Galen states that whether or not the soul is conceived as material, the repercussions of material causes cannot be ignored. Fevers, humoral unbalance, or drugs alter the temperament of the brain, resulting in impaired or altered cognitive abilities. Furthermore, under extreme physical conditions, the soul abandons the body, thus resulting in death. If the soul is truly separate and immaterial, no explanation seems to respond to the effects of the body upon the soul, and Galen concludes by affirming that, "even if one wishes to posit a separate substance for the soul," i.e. one that is not resulting from the qualitative mixture of the elements, one is forced to admit "at

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[29] See for instance *Quod animi mores* 3 (K IV: 775): "Plato would have done well to give an equally good explanation of this point as he did of the other matters regarding this faculty. [...] If Plato were alive, I would most gladly receive instruction from his on that point. But he is dead, and none of the present-day Platonists has ever shown me the cause..."

[30] A point that Galen stresses in several of his works, see for instance *Quod animi mores* 3 (K IV: 773): "For my part, I am unable to make a confident assertion one way or the other [regarding the immortality of the soul]," but also *De propriis placitis*, chs. 2-3, in *Nuovi scritti autobiografici*, ed. M. Vegetti (Rome: Carocci, 2013), pp. 185-247, at pp. 187-91. Ballester, *Alma y enfermedad* cit., pp. 188-89, delineates four different attitudes in Galen's approach to the nature of the soul: in works like *De usu partium*, the answer is a blunt *ignoramus*; in other treatises like *De simplicibus medicinis*, Galen does not consider the problem relevant for the physician; in *De placitis*, Galen's position is a cautious assessment of different opinions; while in *De moribus*, Galen states the unwavering faith in an immortal life of the soul after death.

least that it is slave to the mixtures of the body (δουλεύειν αὐτὴν ταῖς τοῦ σώματος κράσεσιν)" (*Quod animi mores* 3; K IV: 779).[31] This argument is a direct consequence of the "relationism" delineated at the beginning of the treatise, whereby Galen understands the faculty of the soul by means of the events caused. By taking to its extreme an understanding of the soul as the combination of the activities therein administrated, Galen concludes that when said activities are bodily affected, a bodily dependence must be necessarily posited.

In the following chapter, Galen continues following the parallel arguments of an embodied soul, on the one hand, and a separate, immaterial one, on the other, by analyzing the opinions of different philosophical schools. In analyzing the sources of his masters, Galen keeps reaffirming the material influence that the body has on the soul, and how it can be experienced through medical practice. His reading of Plato is therefore an idiosyncratic interpretation that rebukes the opinions of the *Timaeus* with his own words (*Quod animi mores* 4; K IV: 780-82).[32] The conclusion of this line of reasoning is a definition better than the one provided above. Galen reaffirms the necessity of posing not only a complete enslavement of the mortal soul to the physical reality of the body, "but rather that [the temperament] is actually what the mortal part of the soul is" (Ibid.; K IV: 782). By addressing the issue of both the irascible and the desiderative parts of the soul, Galen is limiting the discussion to what Plato as well considers the mortal dimension of the human soul. But, as we shall see later, his own argument is theoretically

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[31] See Ballester, *Alma y enfermedad* cit., pp. 192-95.

[32] Ibid., pp. 205-21. As we have seen in the previous chapter (2.2 *Matters of Physiology: Galen's Response to Aristotle*, pp. 109-42), Galen's interpretation of his philosophical authorities is in line with the eclecticism of his time, on which see also Margherita Isnardi, "Techne." *La parola del passato. Rivista di studi classici* 79 (1961), pp. 257-96, especially p. 273. Richard Walzer, *Galen on Jews and Christians* (London: Oxford University Press, 1949), p. 40, notices a firm Aristotelian trend in the Platonic Academia as well.

applied also to the so-called immortal part of the soul, or rather, the rational soul is also conceived as physical and mortal. Towards the end of the chapter, Galen responds to the ethical philosophy of Chrysippus, who "owed his wisdom to a well-balanced temperament of these elements" (Ibid.; K IV: 784), thus proposing a temperamental nature for the reasoning faculty as well. While the Stoic school places much attention on the psychological understanding of the passions, and the control thereof, Galen concludes that if the movements of the soul, especially the desiderative and appetitive parts, are to be taken as their bodily constituents, any moral responsibility for human actions is devoid of praise or blame. If wisdom is truly a consequence of the mixture of the elemental qualities of the body, Chrysippus "should not be praised for his wisdom"; "nor, indeed, should praise and blame attach to self-control or indiscipline in the context of the desiderative part of the soul, nor similarly, to the acts and affections of the spirited [i.e. irascible] part: bravery or cowardice" (Ibid.).

This point is of utter importance for moral philosophy, for it removes from the equation any rational control over the tyranny of the body. Moreover, it separates the human acts of volition from the workings of reason, in a way that addresses the Stoic philosophy of Chrysippus, but conversely also that of Aristotle's *Nicomachean Ethics*. As we have seen in the previous section, Aristotle's focus on the communication between reason and desire is best represented in the rational act of choice (Gk. προαίρεσις), a chain of arguments that bridges the gap between compulsion and decision. But as Galen posits it, if any wise or unwise action is dependent upon the bodily factors of the temperaments, there is no separate immaterial cause that guides the involuntary movements of the passions. Through the medium of the body, a human like Chrysippus can be wise thanks to the right amount of dryness in his brain, and nothing else. While Aristotle would place praise and blame in the constitutive rational act of

choice that backstops any moral decision, Galen's razor cuts out the unnecessary immaterial element of rationality, and thus opens up a daunting window over the ethical responsibilities for any human action, in a gesture that seems to consider as indemonstrable hypotheses all the considerations regarding the divine and separate nature of reason.

Galen's opinion of the matter does not reach more definite conclusions that these, and while his questions carry the weight of dismantling an entire moral philosophy, his arguments do not follow this path at length. The chapter does not insist on an anarchical consideration of human morality, and interestingly enough, Galen does not explicitly mention Aristotle's *Nicomachean Ethics* once in the whole treatise.[33] In the course of his analysis, Galen goes back to the initial hypothesis of a bodily or immaterial substance of the soul (or parts thereof). Plato's assumption that there is a separate, non-bodily form of the soul that is not chained to the body is indeed regarded by Galen as an assumption (ὑποθεμένοις), not a logical conclusion. Galen is however willing to take the leap, and he starts from the same premises as Plato. The reasoning of chapter 5, one of the more philosophically dense of the entire treatise, runs as follow: let us posit together with Plato that there is a non-bodily dimension in the human soul. There are two possible responses to this initial claim: either it is truthful, or wrong. Galen has already provided enough evidence for disproving these premises, since it is part of medical (but also common) experience to witness the bodily dimension of human reason. But let us consider for once Plato's hypothesis, according to which the rational soul is indeed separate and non-corporeal. In this perspective, human reason is not one with the bodily changes, but it is at least dependent upon them, "liable to impairment from the temperament of the body" (*Quod animi mores* 5; K IV:

[33] The works by Aristotle directly mentioned in the treatise are only those representing the mature "empiricism" of the Stagirite and the Peripatetic school, i.e. the works on animals, *De anima*, *Problemata*, and *Physiognomica*.

785), and that cannot be disregarded because it is scientific evidence. We now find ourselves at an important crossroads: the rational soul is either one with the *physis* of the temperament, or it is indissolubly linked to its material dimension. Galen concludes that "[s]uch a consideration may in itself cast doubt on the non-bodily nature of the soul as a whole," since the bodily influence would be able to force the rational soul in a direction contrary to its nature, i.e. irrational behavior (Ibid.; K IV: 788).[34] Galen's questioning is louder than any definite conclusion on the issue:

> For if the soul were not some quality, form, affection, or faculty of the body, how could it actually acquire a nature opposite to its own, just by communion with the body? I pass over this point, to avoid a digression which might be longer than our main subject of discussion.
> (*Quod animi mores* 5; K IV: 788)

We are left wondering what would be a better "subject of discussion" than the nature of the soul in a treatise dedicated to the demonstration of the soul's dependence over the body, but Galen's reticence is that of a physician who does not want to explicitly address metaphysical questions that are beyond his immediate scope. Nevertheless, Galen's open criticism to the fundamental assumptions of Plato's psychology casts a shadow over all the others matters in moral philosophy, and brings forth a series of points that runs the risk of overturning the entire system of Aristotelian ethics.[35]

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[34] Ballester, *Alma y enfermedad* cit., p. 142, reminds that the Stoic rationalism identifies what is natural with what is rational (λόγος = φύσις), and therefore excludes any form of passion from the sphere of rationality.

[35] The criticism falls also over the "self-styled Platonists" of his age, who posits with unwavering certitude the ability of the soul to "perfor[m] its own functions without assistance or hindrance from the body provided the latter is healthy" (*Quod animi mores* 9; K IV: 805). Although the immediate reference is to a different school of thought, we have seen in the previous section that Aristotle too argues for a similar relationship between healthy disposition and ethical behavior, and uses medical imagery to explain the rightful workings of reason in a well-balanced body.

Chapters 6 to 10 of *Quod animi mores* provide a series of authoritative statements from Plato, Aristotle, and Hippocrates to back up the thesis of the entire treatise. By recurring to Plato and Aristotle in particular, Galen is at once able to buttress his argument, and to criticize the opinions of his predecessors by means of their own words. With respect to Aristotle, it is interesting to note how Galen's doxographical approach is limited to his scientific works on animals and physiognomics, and does not address the ethical implications that Aristotelian biology might have upon the ideas of the *Nicomachean Ethics*. In Galen's reading of Aristotle's books on animals, there is no mention of, and no space for, the hopeful identification of *proairesis* as the basic human principle. One might even argue that a rigid biological finalism is the best response that Galen could find to Aristotle's claims on ethical philosophy, for if "the construction of the whole body is, in each kind of animal, especially fitted to the characteristics and faculties of that animal's soul," the discussion focuses even more on Aristotle's physical determinism. A concept that, as we have seen, is indeed present in *Nicomachean Ethics*, but that is not yet able to shake Aristotelian moral philosophy at the core.

Galen's concluding chapter of the *Quod animi mores* recapitulates the conclusions of the entire treatise, and brings forth a series of arguments that derive from the previous statements. While the physician of Pergamus does not aim to destruct "the fine teachings of philosophy," he is well aware of the "pedagogic value" of his work, in being at once a fitting guide and a didactic support to the search of virtue (*Quod animi mores* 11; K IV: 814). Nevertheless, his final statements in this respect reaffirms a somatic determinism that is unwavering in its rigid approach, by aligning any kind of behavior to the complexion of the body. "Not all are born enemies of justice, nor all its friends," says Galen, but "each kind comes about through bodily complexion" (Ibid.). The troublesome question that he earlier posed to Plato's psychology and

ethics resonates in the final pages of the treatise, while carrying its voice across the pages of Aristotle's *Nicomachean Ethics* as well: "How then, they say, can one be *justly* (δικαίως) praised, blamed, loved, or hated for good or evil qualities which are not due to oneself but to a temperament, which obviously derives from other sources?" (Ibid.; K IV: 814-15; my emphasis). The medical problem of the soul's dependence on the body's complexion is swiftly encapsulated under an ethical discussion with the inclusion of the adverb δικαίως, "justly," which questions the appropriateness of moral connotations and the human repercussions of medical psychology. According to Galen's "naturalistic radicalization," our ethical systems cannot eschew the consideration not only of medicine, but also of the whole array of physical, topographical, and customary variables that end up swinging human consciousness in one way or another.[36] Education of the soul is therefore useless if not accompanied by an accurate identification of the material causes of moral behavior, since the "temperament itself is due to birth and to good-humoured regimen" (Ibid.; K IV: 821). Birth and regimen are thus the precondition of human choices, not the lines of reasonable judgments that Aristotle poses behind his celebration of *proairesis*, and only one of the two is more or less subject to human control. While birth parameters cannot be easily modified over the course of life, a good regimen can be acquired through medical guidance, thus reaffirming the centrality of the physician in the realm of ethical philosophy that Galen stated at the beginning of the treatise.[37]

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[36] On Galen's "naturalistic radicalization", see Pedro Laín Entralgo, *Enfermedad y pecado* (Barcelona: Ediciones Toray, 1961), p. 42.

[37] See the first page of the book, which reads: "we derive a good bodily mixture from our food and drink and other daily activities," therefore what Galen would consider the six non-naturals, i.e. the variables external to human control that are able to influence the constitution of the complexion, "and that this temperament is the basis on which we then build the virtue of the soul" (*Quod animi mores* 1; K IV: 768).

Luis García Ballester is therefore correct in reading the *Quod animi mores* as the final stage of Galen's move to "naturalistic corporalism," where he progressively abandons the Platonic idea of the immortality of the soul, and fully embraces the somatization of the mature Aristotle and the Hippocratic corpus.[38] By understanding the soul as a corporeal substance, not only enslaved to the bodily complexion, but the very *kràsis* itself, Galen follows to the extreme the naturalistic tendencies of medical thought that were opened already by the Hippocratic *De morbo sacro*.[39] At the beginning of this section, I mentioned that the Latin West did not have access to this late work of the Galenic corpus until the first half of the 14th century, but as Galen himself states in the first pages of the *Quod animi mores*, "[t]he truth of this proposition is something I have confirmed on more than one occasion" (*Quod animi mores* 1; K IV: 767). The fundamental tenets of Galen's line of reasoning can be detected not only in other medical works of his corpus, but also in the sources that he reads during the course of the investigation. As García Ballester argues, the *Quod animi mores* could be taken as a humoral interpretation of Aristotelian hylomorphism, where the relationship between body and soul is understood in terms of elemental balance by affirming that "the substance (οὐσία) of soul, too, must be some mixture

[38] See Ballester, *Alma y enfermedad* cit., pp. 150-204. See also Laín Entralgo, *Enfermedad y pecado* cit., p. 48: "De afirmar míticamente que la ética tiene una expresión física (Homero), se ha venido a sostener técnicamente que la física – la "fisiología" – constituye el solo fundamento de la ética (Galeno)" [From the mythical assumption that the ethics has a bodily expression (like in Homer), with Galen we arrived to technically argue that physical nature – i.e. physiology – constitutes itself as the single fundament of ethics]. My translations.

[39] See Ballester, *Alma y enfermedad* cit., p. 195.

(κράσις) of these four qualities, heat, cold, dryness, and wetness" (*Quod animi mores* 3; K IV: 774).[40]

Galen's work is a corollary upon Aristotle's philosophical investigation on the nature of the soul, as reframed under a medical theory, rather than an original line of inquiry on new data. As we have seen above, and as Ballester outlines, if all substances are constituted of matter and form (A), and matter is constituted by the mixtures of the elements (B), form is to be taken as the substantial form that arranges the elements in such a way for the substance to be what it is (C); therefore, if the soul is the substantial form of the body (D), the substance of the soul is equivalent to the mixture of the qualities as well (E). Points (A), (B), (D) are cornerstones of the entire Aristotelian system of physics,[41] reaffirmed in many places of the Galenic corpus, while (C) and (E) are necessary conclusions that stem from those premises.[42]

It would not come as a surprise then that, over the course of the 13th century, Galen was identified with this trend of somatic determinism, and that some responses to the nullification of free will and moral responsibility had to come to terms with the latent presence of Galen's medical ethics, well before the actual reception of this dedicated treatise. Thomas Aquinas for instance, in both the *Quaestiones disputatae de anima* and the *Contra Gentiles*, responds to

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[40] Ballester, *Alma y enfermedad* cit., p. 182: "Galeno realiza a continuación una exégesis humoralista del hilemorfismo aristotélico y mediante la utilización de un proceso lógico llega a la conclusión central del escrito que comentamos" [Galen discusses a humoral interpretation of the Aristotelian hylomorphism, and through the employ of a logical process he arrives at the core conclusion of the work upon which we have been commenting]. My translations.

[41] These points can be found in many places of the Aristotelian corpus, but more precisely in *Physics*, *De generatione et corruptione*, and *De anima*.

[42] The above schematization is in Ballester, *Alma y enfermedad* cit., p. 183.

Galen as the authority affirming that the soul is indeed the complexion.[43] In the second book of *Contra Gentiles*, Aquinas articulates his critique to Galen's juxtaposition of soul and complexion in a manner that is not dissimilar to the analogous response to Alexander of Aphrodisia's theory of the intellect. Aquinas presents the premises of Galen's argument in a manner indeed similar to that discussed in the *Quod animi mores*: "Ad hoc autem dicendum motus est per hoc quod videmus ex diversis complexionibus causari in nobis diversas passiones quae attribuuntur animae: aliquam enim complexionem habentes, ut cholericam, de facili irascuntur; melancholici vero de facili tristantur" [Now, he was moved to say this because of our observation that diverse passions, ascribed to the soul, result from various temperaments in us: those possessed of a choleric temperament are easily angered; melancholics easily grow sad].[44] According to Aquinas, Galen mistakenly reaches those conclusions from the observation of different characters that must have behind them different causing substances. Aquinas' response redirects the identification of the cause of passions directly into the workings of the soul as their principal

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[43] Thomas Aquinas, *Quaestiones disputatae de anima*, a. 1 co.: "Duobus igitur existentibus de ratione eius quod est hoc aliquid; quidam utrumque animae humanae abstulerunt, dicentes animam esse harmoniam, ut Empedocles; aut complexionem, ut Galenus; aut aliquid huiusmodi" [Now some men have denied that the human soul possesses these two real characteristics belonging to a particular thing by its very nature, because they said that the soul is a harmony, as Empedocles did, or a combination [of the elements], as Galen did, or something of this kind.] Quotation from Thomas Aquinas, *Quaestiones disputatae*, 2 vols. (Rome: Marietti, 1965), vol. 2: *De potentia*, *De anima*, *De spiritualibus creaturis*, *De unione verbi incarnati*, *De malo*, *De virtutibus in communi*, *De caritate*, *De correctione fraterna*, *De spe*, *De virtutibus cardinalibus*, eds. P. Bazzi et aliis. Eng. transl. J.P. Rowan (St. Louis-London: B. Herder Book Co., 1949).

[44] Thomas Aquinas, *Contra Gentiles*, lib. 2 cap. 63 n. 1. Quotation from Thomas Aquinas, *Opera omnia, ut sunt in Indice Thomistico, additis 61 scriptis ex aliis medii aevi auctoribus*, 7 vols., ed. R. Busa (Stuttgart-Bad Cannstatt: Frommann-Holzboog, 1980), vol. 2: *Summa contra Gentiles*. Eng. transl. J.F. Anderson et alii (Notre Dame: University of Notre Dame Press, 1975[2]). In his commentary *ad locum*, Anderson argues that Aquinas' sources for this interpretation of Galen are mainly Gregory of Nyssa's *De anima*, and Nemesius of Emesa's *De natura hominis*, both translated into Latin by Burgundius of Pisa over the course of the 12th century.

cause, and not simply "sicut disponenti," i.e. in a manner that disposes the matter to a specific action (*Contra Gentiles*, lib. 2 cap. 63 n. 6). With his critique of Galen's somatic determinism, Aquinas thus is a witness to the reception of Galenic thought as a possible source for heterodox tendencies. Galen's material interpretation of the human soul, the negation of free will, and the corporeal underpinnings of moral actions are therefore easily accessible through both indirect sources on Galenic thought, and by means of other materials of the Galenic and Aristotelian corpus. When Taddeo Alderotti translates an epitome to Aristotle's *Nicomachean Ethics* into Tuscan, he shows the same tensions and debates that are present in the intellectual circles of both physicians and theologians, and offers in the vernacular a fruitful blueprint for the almost coeval exchanges among poets of the end of the century.

3.4 Between the *Ethics* and the Body

Taddeo Alderotti's contribution to the emerging philosophical culture in the vernacular during the second half of the 13th century is to be placed among other experiences of *volgarizzamenti* in prose of the century. While forging a doctrinal and scientific prose in the vernacular, these contributions helped shape the intellects of an emerging cultural environment of laymen who found appealing a non-Latinate production of fiction and (especially moral) philosophy.[45] In this last section, I will read Taddeo's *Etica volgarizzata* as an example of how vernacular moral philosophy was part of a larger scientific environment, in which medicine finds its way to other cultural branches. When Taddeo translates an epitome of Aristotle's

[45] See *La prosa del Duecento*, eds. C. Segre and M. Marti (Milan-Naples: Ricciardi, 1959); Gianfranco Folena, *Volgarizzare e tradurre* (Turin: Einaudi, 1991); *Filosofia in volgare nel medioevo*: Atti del convegno della Società Italiana per lo Studio del Pensiero Medievale (SISPM), Lecce 27-29 settembre 2002, eds. N. Bray, L. Sturlese (Turnhout: Brepols, 2003).

Nicomachean Ethics, he does not choose this text because he lacks better and more complete versions of Aristotelian moral philosophy. The extreme success of this epitome, both in its Latin and vernacular versions, is symptomatic of the scientific interest of the physicians, and also of the intellectual environments to which Taddeo directs the translation of the text. The combination of medicine and ethics is mirrored also in the philosophical and poetic discussions around the relationship between love and reason, thus sharing a *forma mentis* that is able to challenge the cultural spheres of their times.

3.4.1 The Physician

Taddeo Alderotti's *Etica volgarizzata* has an intricate textual history, and its transmission from the original source of the Aristotelian treatise to the vernacular epitome has to take into account a series of steps.[46] The first passage to consider is the summarization of Aristotle's *Nicomachean Ethics* into a shorter form, completed probably by historian and philosopher Nicolaus Damascenus during the first century BC, among his other works of commentary. This Ur-epitome, as it were, was later translated anonymously into Syriac, as part of the transmission

[46] The following reconstruction is based upon the scholarship on the different versions of the text: Concetto Marchesi, *L'*Etica Nicomachea *nella tradizione latina medievale* (Messina: Libreria Editrice Ant. Trimarchi, 1904); Douglas Dunlop, "The Arabic Tradition of the *Summa Alexandrinorum*." *Archives d'histoire doctrinale et littéraire au Moyen Age* 49 (1982), pp. 253-263; Id., "Introduction," in *Aristotle. The Arabic Version of the* Nicomachean Ethics, eds. A. Akasoy and A. Fidora (Leiden: Brill, 2005), pp. 1-109; George B. Fowler, "Manuscript Admont 608 and Engelbert of Admont (c. 1250-1331)." *Archives d'histoire doctrinale et littéraire au Moyen Age* 49 (1982), pp. 195-252; Marie-Thérèse d'Alverny, "Remarques sur la tradition manuscrite de la «Summa Alexandrinorum»." *Archives d'histoire doctrinale et littéraire au Moyen Age* 49 (1982), pp. 265-72; Sonia Gentili, *L'uomo aristotelico alle origini della letteratura italiana* (Rome: Carocci, 2005); Ead., "L'«Etica» volgarizzata da Taddeo Alderotti (m. 1295). Saggio di commento." *Documenti e studi sulla tradizione filosofica medioevale* 17 (2005), pp. 249-81; Irene Zavattero, "I volgarizzamenti duecenteschi della «Summa Alexandrinorum»." *Freiburger Zeitschrift für Philosophie und Theologie* 59/2 (2012), pp. 333-359.

of Greek culture in the Eastern part of the Mediterranean.[47] The Syriac version of the epitome was translated into Arabic by Jacobite Christian philosopher and translator Ibn Zurʿah in 10th-century Baghdad, and this is the text translated into Latin by Hermannus Alemannus in 1243 (or 1244), who gave it the title (*Summa Alexandrinorum*) with which the work is known.

The older Latin translation of the *Summa* is usually referred to as the *versio communis*, and it is at the basis of Taddeo Alderotti's translation into Tuscan, of Brunetto Latini's French version (included in his *Li Livres dou Trésor*), and of Guittone d'Arezzo's excerpts in his *Letters*.[48] Another Latin version of the *Summa Alexandrinorum* is commonly referred to as *redactio Patavina*, or better even as *versio Admontensis*, because of Engelbert of Admont's manuscript copy and glosses completed in the last decade of the 13th century (or shortly after).[49] The *versio Admontensis* is a revision of the *versio communis* that aims to clarify and better the

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[47] On the combined role of translators, abridger, and commentators of Greek philosophy and science between the 5th and the 11th century CE, see Gérard Troupeau, "Le rôle des syriaques dans la transmission et l'exploitation du patrimoine philosophique et scientifique grec." *Arabica* 38/1 (1991), pp. 1-10.

[48] There is no critical edition of the *versio communis*. Marchesi, *L'Etica Nicomachea* cit., pp. xli-lxxxvi, gives a transcription of the oldest manuscript of the text: Florence, Biblioteca Mediceo-Laurenziana, MS Gadd. Plut. 79 inf. 41, ff. 134-144, 13th century. This manuscript reproduces a text similar to that preserved in Paris, Bibliothèque Nationale de France, MS Lat. 16581, ff. 3-50v, which is one of Richard of Fournival's books, and probably copied in Paris *ante* 1250 directly from an exemplar that Hermannus Alemannus brought with him to the *Studium*. On the relationship between the two redactions of the *versio communis*, see d'Alverny, "Remarques sur la tradition" cit., pp. 270-71, and in disagreement Gentili, *L'uomo aristotelico* cit., pp. 34-35. During the course of this chapter, I will quote from Marchesi's transcription of the Florentine manuscript, hereafter simply SA1.

[49] There is no critical edition of the *versio Admontensis* either. Fowler, "Manuscript Admont 608" cit., is simply a collation of the Admont manuscript (Admont, Stiftsbibliothek, MS 608, ff. 43-60v, 13th century) and the Oxford manuscript (Oxford, Bodleian Library, Canon. Lat. Class. 271, ff. 218-245, 15th century). I will quote from Fowler's collation, hereafter simply SA2.

style of the older version, while including exegetical and lexical materials from other Latin translations of the *Nicomachean Ethics*. At the present state of the investigation, it is not clear whether Engelbert is directly responsible for the redaction, or if he is merely copying from preexisting materials. Nonetheless, this more recent version of the *Summa Alexandrinorum* is almost never used by the *volgarizzatori* of the 13th century.[50]

The attribution of the *Etica volgarizzata* to Taddeo Alderotti has been disputed at length over the course of the centuries. Since it presents a text very similar to the Tuscan translation of Brunetto Latini's *Trésor*, it has been reputed an excerpt of the latter. Both Concetto Marchesi and Sonia Gentili confirmed the attribution to Taddeo based on manuscript evidence, and this gives further consistence to Dante Alighieri's derogatory mention in *Convivio* I x 10 – who rebukes the "laido" vernacular used by "Taddeo ipocratista" –, which is probably an original Dantean parenthetical element rather than a later interpolated gloss.[51] While working on the first critical edition of the text, Sonia Gentili confirmed the initial suspicion of Concetto Marchesi regarding the textual work of Taddeo's translation. In his *volgarizzamento*, Taddeo uses the Latin text of the *Summa Alexandrinorum*, but he integrates some original Aristotelian materials via Robert Grosseteste's Latin translation of the *Nicomachean Ethics*, together with traditional exegetical materials from Alberto Magnus's *Super Ethica* and Thomas Aquinas' *Sententia libri*

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[50] See Gentili, *L'uomo aristotelico* cit., pp. 43-46, who provides examples in which Taddeo might have collated materials from the *versio Admontensis*. Zavattero, "I volgarizzamenti duecenteschi" cit., p. 337n, however is more cautious in the absence of a critical edition of both texts, who might clarify the relationship between the two versions.

[51] See Gentili, *L'uomo aristotelico* cit., pp. 33n, 156-60; Nancy Siraisi, *Taddeo Alderotti and His Pupils. Two Generations of Italian Medical Learning* (Princeton: Princeton University Press, 1981), pp. 78-79.

Ethicorum.[52] The individuation of secondary sources used by Taddeo puts into question the relative chronology of these commentary works. Since Aquinas' commentary was completed around the years 1271-72, while Brunetto wrote his *Trésor* during his French exile (1260-66), Gentili's attribution of Taddeo's *volgarizzamento* to the 1260s must take into account these chronological limitations, especially if we must consider Brunetto's dependence upon Taddeo's translation.[53]

The importance of the *Etica volgarizzata* does not consist solely in Taddeo's contribution to founding a communal civic sense by means of Aristotelian moral philosophy. While much of the scholarly attention has focused – understandably – on the ethical system directed at the emerging cultural circles of the communes, I argue that Taddeo's interests in the *Etica* are also coherent with his professional life as an academic physician. Together with a straightforward presentation of Aristotle's ethics, Taddeo's role as a translator also reveals his scientific attitude as "conciliator" between a Galenic somatic determinism and an Aristotelian primacy of moral responsibility. With the *Etica*, Taddeo might have contributed also to a reevaluation of orthodox positions, in a fashion not dissimilar to what Bruno Nardi identified in Taddeo's "timid"

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[52] See Gentili, *L'uomo aristotelico* cit., pp. 38-45; Ead., "Saggio di commento" cit. Zavattero, "I volgarizzamenti duecenteschi" cit., has reserves regarding Gentili's collations with Aquinas' commentary.

[53] Therefore, Taddeo's use of Aquinas' commentary has to be verified once more, or we must consider, together with Gentili (*L'uomo aristotelico* cit., p. 41) an "hypothetical source" shared by both Aquinas and Taddeo in their work on the Aristotelian text. Collaterally, Brunetto's use of Taddeo's translation needs further investigation. On this issue, see Zavattero, "I volgarizzamenti duecenteschi" cit., pp. 338-39; Gentili, "Saggio d commento" cit.; Ead., "L'edizione dell'*Etica* in volgare attribuita a Taddeo Alderotti: risultati e problemi aperti," in *Aristotele fatto volgare. Tradizione aristotelica e cultura volgare nel Rinascimento*, eds. D.A. Lines, E. Refini (Pisa: Edizioni ETS, 2014), pp. 1-21.

treatment of monopsychism, as presented in his commentary to Johannitius' *Isagoge*.[54] With his attentive translation of the *Etica*, Taddeo veers from a position that orthodox authorities could have used against the physicians and the artists of the *Studium* in Bologna while revealing his attitude towards these thorny subjects.

The text of the *Etica* opens with the definition of the field of investigation, in a manner similar to the first chapters of the *Nicomachean Ethics*.[55] Every art and every operation tend to a

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[54] See Bruno Nardi, "L'averroismo bolognese nel secolo XIII e Taddeo Alderotti." *Rivista di storia della filosofia* 4 (1949), pp. 11-22. Sonia Gentili, "La vulgarisation de l'*Éthique* d'Aristote en Italie aux XIIIe et XIVe siécles: enjeux littéraires et philosophiques." *Médiévales* 63 (2012), pp. 47-58, underlines the entanglement between Aristotelian ethics and Christian doctrine in Taddeo's translation, and the idiosyncratic solutions that he takes during the course of his work.

[55] Quotations are from the same manuscript that Sonia Gentili is using in her critical edition: Florence, Biblioteca Nazionale Centrale, MS Magliabechiano II iv 274, ff. 17r-44v. Marco Cursi identified the hand of the manuscript as the same scribe whom, after his preferred motto, Giuliano Tanturli named *Non bene pro tota libertas venditur auro*. The anonymous scribe is active in the first years of the 15th century, and he is almost certainly part of Coluccio Salutati's intellectual circle. *Non bene* copied other manuscripts, and they are all in the vernacular (e-mail communication of 10/14/2016). See also Marco Cursi-Carlo Pulsoni, "Nuove acquisizioni sulla tradizione antica dei *Rerum vulgarium fragmenta*." *Medioevo e Rinascimento* 24, n.s. 21 (2010), pp. 215-76, especially pp. 258-59 on *Non bene*. My thanks to Marco Cursi for his invaluable paleographical expertise. The transcription of Taddeo's *Etica* (hereafter simply *Ev*) has been controlled on Alessio Milani, *Materiali per una storia della tradizione della «Summa Alexandrinorum» in volgare* (Tesi di dottorato in studi di Antichità, Medioevo, Rinascimento, XXIII ciclo; Florence, Istituto Italiano di Scienze Umane, Università di Firenze: Istituto di Studi Umanistici, 2011), whom I also thank for sharing his unpublished material with me. Both Milani and I distinguish between u/v, separate words according to modern usage, and provide punctuation that is coherent with both modern syntax and spare signs of the scribe. Book and chapter divisions are from the manuscript itself, with indication of leaf and column. My translations here and elsewhere.

certain specific end,[56] although there is a natural distinction between particular and universal arts. The more universal art is the guiding principle for the more particular arts, under which they are subsumed.[57] This initial distinction is material for the argument of the following chapter, which defines the scope of the "arte civile" [civic art; *Ev* I 2, f. 17va] as the more worthy and honorable art of all, since a plethora of other arts are included under it. The main scope of the civic art is "il bene de l'uomo" [the human good; Ibid.], since it guides the citizens towards the good, and restrains them from wicked actions.[58]

This second chapter offers also one example in which Taddeo's translation style reveals a scientific attitude that differs from his source. While SA1 and SA2 both underline the importance of measuring the teaching with its particular subject in a manner that is similar to that of the *Nicomachean Ethics*,[59] Taddeo introduces a slight ambiguity in the possessive adjective used,

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[56] *Ev* I 1, f. 17ra: "Secondo diverse arti sono diversi fini, ché sono tali fini che sono operationi, et sono tali fini che non sono operationi, ma seguitansi a l'operationi. Con ciò sia cosa che sieno molte arti et molte operationi, ciaschuna àe lo suo fine" [Every single art has its specific end, since there are ends that there are operations, and there are ends that are not operations, but they follow the latter. Although there are many arts and many operations, every one of them has its specific end].

[57] *Ev* I 1, f. 17rb: "Et queste arti universali sono più degne et più honorevoli di quelle, imperciò che le particulari sono facte per le universali" [And these universal arts are more worthy and more honorable of the particular arts, for the particular are made for the universal].

[58] *Ev* I 2, f. 17va: "Adunque è lo bene lo quale si seguita di questa sciença si è il bene de l'uomo, perciò ch'ella il costrigne di fare bene, et costrignelo di non far male" [Therefore the good that is sought after with this science is the human good, for it forces men to pursue the good, and forces them not to act wickedly].

[59] See *Et. Nic*. I 3, 1094 b 12: "Our discussion will be adequate if it has as much clearness as the subject-matter admits of," SA1, p. xlii: "Recta doctrinatio est inquirere in unoquoque generum iuxta mensuram quam sustinet natura illius generis" [A good teaching is to seek after in every kind (of teaching) in proportion with the nature of that kind]; similarly SA2, p. 197: "Recta vera doctrinatio est inquirere in unoquoque genere rerum, quantum sustinet natura illius generis."

that juxtaposes the goodness of the instruction with the nature of the pupil, by affirming that "[l]a recta doctrina si è che l'uomo si proceda in essa secondo che la *sua natura* puote sostenere" [a good teaching is that of the man who approaches to it according to what his/its nature can sustain; *Ev* I 2, f. 17va, my emphasis]. The "sua natura" of the vernacular translation can have as antecedent either the "recta doctrina" or the "uomo" of the same sentence, thus connecting this passage to the discussion to the following section, which deals with the appropriate mindset of those who want to approach civic art. Taddeo is not interested in the nature of the subject per se, but in the nature of the humans to whom he is addressing his translation. In order to do so, Taddeo has to force the text of his source, and to ply it in order to argue that some natures are just not "right" to deal with politics and ethics.

This discussion is connected to an analogous argument stated a few lines below, where the text reads that "[l]a sciença di reggere la cittade non si conviene a giovani e garçone, né a huomo che seguiti le sue volontadi, perciò ch'elli non sono isperti de le cose del secolo" [the science of governing the city is not appropriate to young people and kids, nor to a man that follows his desires, because they are not expert of the things of this world; *Ev* I 2, f. 17vb].[60] Taddeo stresses the danger of assigning the governance of the city to men who are immature, either in age or mind, since they will find themselves merely following their instincts. Desires can be restrained only through a certain degree of maturity, which comes with age and

[60] Similarly SA1, p. xlii: "Ars ciuilis non pertinet puero neque prosecutori desiderii atque victorie, eo quod ambo ignari sunt rerum seculi, neque proficit ipsis" [Civic art does not pertain to the kid or the seeker of his desire or victory, since they are both ignorant of the things of this world, and they do not profit from them].

experience, and will bring the human to a confident preparation in dealing with serious matters.[61] This point is reminiscent of the Aristotelian emphasis on the maturity of reason and the controlled use of desires in moral actions, whereby choice is considered either as an intellect that wishes, or as a desire that reasons (*Et. Nic*. VI 2; 1139 b 4-5). The "volontà" is therefore the underlining capacity to follow a rightful desire with a just and wise reason, which is able to distinguish between appropriate times, manners, and places. Taddeo specifies how this stage can be reached: "[l]'uomo lo quale dèe studiare in questa sciença et apprendere, sì ssi dèe ausare ne le cose buone et giuste et honeste et convenevoli, od egli conviene avere l'anima sua naturalmente disposta a questa sciença" [the man who wants to study and learn this science, must get used to good and just and honest and appropriate things, or he would either better have a soul naturally disposed to this science; *Ev* I 2, f. 17vb].

The latter specification – you might not need to learn how to behave rightfully if you are naturally predisposed to goodness – is framed in a slightly different way in both SA1 and SA2, where it is stated that those willing to access the good need to either get used to the truth, or possess an aptitude that will facilitate the apprehension of the truth, or a disposition to

[61] *Ev* I 2, f. 17vb: "Adunque a colui si conviene la sciença di reggere la città il quale non è garçone di costumi, e-l quale non seguita la sua volontà, se non quanto si conviene, et quando si conviene, et ove si conviene" [Therefore the science of governing the city is appropriate for the one who is not immature in his behavior, and who does not follow his will, besides how much it is appropriate, and when it is appropriate, and where it is appropriate].

understand the principles of things.[62] Taddeo's inclusion of a natural disposition of the soul that has a talent for the civic arts brings into question how important preexisting conditions that naturally incline the humans to the good really are. Lexically, "naturalmente disposta" attaches a new sense to the "forma" of SA1 ("forma sive dispositione" in SA2), in which form and nature collide into a single cluster of words. For now, whether they are as important as the habits is a question that Taddeo does not discuss, but as we will see below, this is a point that the physician wants to examine even further.[63]

The following chapters of book one deal with the definition of the faculties of the soul, which lay the ground for the psychology of the moral act at the center of the Aristotelian ethical system. Since we are told that the "vita delle bestie" [life of beasts] is "vita di comcupiscença" [life of concupiscence], for they only "seguitano tucte le loro volontadi" [act only according to their desires; *Ev* I 3, f. 18ra], we have here the reaffirmation of the Aristotelian principle that the

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[62] SA1, p. xlii: "Indiget autem homo ad promptitudinem habitationis ueritatis rerum bonarum aut aptitudine bone instrumentalitatis ex qua sciat uerum, aut forma per quam accipiantur principia rerum ab eo facile;" SA2, p. 197: "Indiget autem homo ad promptitudinem cognitionis et discretionis rerum bonarum habitu veritatis aut aptitudine bone instrumentalitatis ex qua de facili et cito sciat verum, aut forma sive dispositione per quam de facili accipiantur principia rerum" [In the alacrity of the knowledge and understanding of good things, the human needs either to get used to the truth, or a good aptitude of the instrumentality from which easily and rapidly can get the truth, or a form/disposition through which easily gets the principle of things]. The original sense of *Et. Nic*. I 4, 1095 a 31-b 21, according to which men who are "brought up in good habits" are more receptive when it comes to virtuous behaviors, is quite different.

[63] Gentili, "Saggio di commento" cit., pp. 271-74, argues that in this passage Taddeo is correcting the text of the *Summa* with Aquinas' commentary, whose selected sentences are translated and integrated into the text. But the natural disposition that I have been discussing in these pages does not correspond plainly to Aquinas' text (*per se ipsum habet principia*), especially for what concern the juxtaposition of "natura" and "form/*dispositio*."

juxtaposition of reason and desire is what constitutes humans for what they are (*Et. Nic*. VI 2; 1139 b 5), even though it is not a feature to be found in the majority of people.[64]

The faculties of the soul as described in Taddeo's *Etica* follow the same scheme of Aristotle's *Nicomachean Ethics*, while innovating slightly from the *Summa*. Taddeo is able to lexically link two different passages of the *Summa*, while adding an essential doctrinal precision through this connection. Both SA1 and SA2 starts the conversation discussing the ways in which the human souls participate [*comunicant*] through both their vegetative and sensitive soul with, respectively, plants and animals, but they are of a different sort because of their rationality.[65] Taddeo's *Etica* lays the ground for a straightforward scheme in which the emphasis is placed directly onto the parts of the soul – "vegictabile," "sensibile," "rationale" –, and then onto their

[64] *Ev* I 3, ff. 17vb-18ra: "Et sono molti huomini li quali vivono secondo la vita delle bestie, la quale si chiama vita di comcupiscença, però che seguitano tucte le loro volontadi" [And there are many people who live according to the life of beasts, which is life of concupiscence, for they follow all their desires].

[65] SA1, p. xliii: "Homini autem secundum animam vegetabilem comunicant terre nascentia, et secundum animam sensibilem comunicant ei animalia; actus uero ei proprius, in quo nullum aliud ipsi comunicat, est actus secundum rationem et discretionem," SA2, pp. 198-99: "et homini secundum animam vegetabilem communicant terre nascentia, et secundum animam sensibilem communicant ei animalia. Actus vero proprius eius in quo nullum aliud secum convenit est ratio, et actus secundum rationem et discretionem" [With their vegetative soul, humans participate with the things sprouting from the earth, while with their sensitive soul, they participate with the animals. They only act that is distinctive of humans, in which they do not participate to anything else, it the act of reason and understanding].

active communication.[66] As Gentili argues, Taddeo is following the original Aristotelian text,[67] but we must also notice the introduction of new lexical choices that clarify the passages even better. Taddeo introduces his explanation with the mention of "tre potençe" [three powers], which are in some cases (like that of plants or beasts) the same of their souls, but they are also specific parts of the human soul as well. The powers in the soul are distinctive souls in themselves, but they create a single unit in the human mind, and Taddeo is careful in providing another term to make this point transparent for his audience. The introduction of the term "potença," which is absent in the first passage of the *Summa*, comes from a later page of the epitome that discusses the same argument. By using the same word, Taddeo is thus signaling the connection between the passages, while providing further explication of the concepts at stake.

The rational soul is deemed pivotal also because its powers are at the core of moral responsibility. According to Taddeo and the source text that he is translating, in the activity of the rational soul the humans gain merit for their actions, since the operations deriving from

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[66] *Ev* I 6, f. 18rb: "L'anima de l'uomo si à tre potençe: l'una si chiama potença vegictabile, nella quale comunica l'uomo co·ll'alberi et co·lle piante, però che tucte le piante ànno anima vegictabile sì come l'uomo. La seconda potença si chiama anima sensibile, nella quale comunica l'uomo con tucte le bestie, perciò che tucte le bestie ànno anima sensibile. La terça si chiama anima rationale, per la quale l'uomo si è diverso da tucte l'altre cose, però che niuna altra cosa à anima rationale sì ccome l'uomo" [The human soul has three powers: one is called vegetative power, through which humans participate with the life of the trees and plants, for all plants have a vegetative soul just like humans do. The second power is called sensitive soul, through which humans participate with the life of beasts, for all beasts have a sensitive soul. The third is called rational soul, for which humans are different from all other things, since no other thing has a rational soul like humans do].

[67] Gentili, "Saggio di commento" cit., pp. 277-78, argues also that the recuperation of the original Aristotelian text goes hand in hand with exegetical materials from both Albert the Great and Thomas Aquinas.

reason contribute to the blessed state of ethical and wise people.[68] Beatitude therefore cannot be gained through the powers of the vegetative or the sensitive soul, since it has to be perfection of the highest faculty of the human soul, which is reason,[69] but it can be accessed only through the unwavering operation of virtue.[70] That is why children and animals are excluded from the attainment of a blessed state, because they do not participate in the rational life of a mature and rational soul, while being confined to the operations of sensitivity and desire.[71] With this point, Taddeo stresses the importance of a controlled use of reason in order to both realize one's true humanity, via the operation of the rational soul, and also the attainment of bliss and happiness.

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[68] *Ev* I 9, ff. 18va-18vb: "La beatitudine si è nell'aquistare delle virtudi et nell'uso loro, ma quando la beatitudine è nell'uomo in habito et non in acto allora si è virtuosa come l'uomo che dorme, la chui operatione non si manifesta" [Beatitude is in gaining and using virtues, but when beatitude is in potence (lit. habitual) and not in act, then it is virtuous like the man who sleeps, whose action is not manifest].

[69] *Ev* I 7, ff. 18rb-18va: "Ogni operatione che l'uomo fa o ella è buona o ella è rea. Et quello huomo che fa buona la sua operatione si è degno d'avere la perfectione della virtude di quella operaçione. [...] Adunque se la vita dell'uomo è secondo l'operatione della ragione, allora sarà laudabile la sua vita quand'egli la mena secondo la sua propria virtude" [Every action that humans do is either good or evil. And that man who acts rightfully is worth having perfection of virtue in that action. Therefore, if the life of man is according to reason, then his life will be praiseworthy when he carries it according to his virtue].

[70] *Ev* I 11, f. 19ra: "Beatitudine è cosa ferma et stabile senpre, secondo una dispositione alla quale non chade varietade né promutaçione alchuna, et non vae talora bene et talora male, ma tuctavia bene: et questo si è perciò che lla bontade e lla retade si è nell'operatione dell'uomo" [Beatitude is a firm and permanent, according to a disposition that does not change in any way, and that does not act one time well and the other badly, but always well. And this is because goodness and righteousness are in the operation of the human].

[71] Ibid.: "niuno gharçone puote avere beatitudine, perciò che niuno animale et niuno gharçone non adopera secondo virtute" [No kid can have beatitude, because no animal and no kid act following virtue].

The link between happiness and correct use of reason is discussed once again in the description of the faculties of the soul. Since this point has already been mentioned above, both the text of the *Summa* and that of Taddeo rephrase the same issues. We see here that the recuperation of the term "potençe" [powers] depends upon this passage, which has both "potentia" and "vis" in the same place.[72] Taddeo uses these *loci* to inform and clarify the passage in *Ev* I 6 that I discussed above, while also stressing the distinctive powers of the human soul.

Taddeo translates this last passage so that he makes explicit the link between moral responsibility and operation of the intellect, since there is "un'altra potença la quale si chiama intellettiva, *secondo la chui opera è l'uomo detto buono et reo*" [another power that is called intellective power, through whose action humans are said to be good or evil; *Ev* I 15; f. 19vb, my emphasis]. The passage between "secundum quam adtenditur bonitas vel malitia" [through which either goodness or malice is sought] of the Latin and "secondo la chui opera è l'uomo detto buono e reo" [through whose action humans are said to be either good or evil] of the vernacular manifests the clear intention to underline even more the centrality of reason as the focus of human responsibility and not simply the instrumentality through which it is possible to seek after goodness. This sense of rationality is individuated once again a few lines below, when both the *Summa* and Taddeo render the difficult Aristotelian concept of the sensitive soul, which is irrational, but still participates in rationality through the directive and guiding force of

[72] SA2, p. 202: "Est autem virium anime hoc quidem irrationale, hoc quidem rationale;" and "Potentia vero anime secundum quam adtenditur bonitas vel malitia in homine hora sompnii non operatur manifeste" [There are two powers in the soul, one is irrational, the other rational. The power of the soul through which either goodness or malice is sought after does not operate manifestly during sleep]. In the same place (p. xlv), SA1 has "vitium" instead of "virium," which is likely due to paleographic error of the scribe. However, in the absence of a critical edition of the text, it is impractical to assess the presence of different readings in other manuscripts.

reason.[73] The "potença conchupiscibile" is said to be "rationale" as long as "ella stae obbediente et sottoposta alla potença ch'è veraciemente detta rationale" [it remains obedient and subject to the power which is truly said to be rational; *Ev* I 16, f. 20ra], thus recuperating the educative and guiding images of the Aristotelian text. With respect to the *Summa*, Taddeo presents the original conclusion that concupiscible virtue can indeed be associated with reason in such a way that it is said to be another manifestation of rational virtue.[74] The desiderative part of the soul therefore can be rational as long as it accepts the commanding force of reason, so that it can become almost a second form of rationality in itself.

This first book of the *Etica volgarizzata* presents a set of fundamental concepts in the field of ethical philosophy that Taddeo is going to employ over the course of the other books. Once again, the innovations and clarification that Taddeo introduces into the text of the *Summa*,

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[73] SA1, p. xlv: "Aliud autem partis irrationalis participat aliquo modo rationem, scilicet tamquam obediens ei, et est pars concupiscibilis cuius obedire rationem significat effectus in nobis redargutionis et corruptionis [sic];" SA2, p. 203: "Aliud autem partis irrationalis participat vel aliquomodo rationum, et habet se tanquam obediens ei, et est pars concupiscibilis cuius obeditionis ad rationem signum et effectum sunt motus redargutionis et correptionis in nobis super motibus contrariantibus rationi" [Another irrational part participates in some way to reason, in such a way that it obeys to it, and that is the concupiscible part, whose signs and effects of obedience to reason are the movement of reproaching and correction in us over the motions that are contrary to reason]. *Ev* I 15, f. 19vb: "Et è un'altra potença dell'uomo la quale, avegna che non sia rationale, si participa della ragione, perciò ch'ella dèe ubidire alla vertù rationale, et questa si chiama la virtù conchupiscibile" [And there is another power in the human which, although not rational, participates to reason, because it must obey to the rational power, and it is called concupiscible power]. Note that Taddeo does not convey the vagueness of this participation, expressed in the Latin of the *Summa* by "aliquomodo" (and deriving in some way from the proclitic τις of the Greek), but merely states the connection between powers.

[74] Note that both versions of the *Summa* simply state that "vis rationalis duplex est" [rational power is twofold; SA1 p. xlv, SA2 p. 203], one rational "vere" [truly], the other rational if and only if it obeys reason [SA1: si rectificabiliter se habuerit; SA2: si recto modo fuerit se habens]. Taddeo adds *sua sponte* the specification that "l'altra potença rationale si è la potença conchupiscibile."

whether deriving from commentary tradition or of his own making, reveal his attitude with respect to the possibilities of human reason and the forces at play within the mind.

The distinction between two different forms of rational power, one in essence as the true intellective virtue, the other depending on the acceptation of the control of reason over the desiderative, is realized respectively in the distinction between intellectual and moral virtue. The first two chapters of book 2 of the *Etica* integrate and expound in interesting ways the text of the *Summa*. Here, Taddeo is explaining how one can gain and augment moral virtue, and what the relationship between morality and predisposition is in terms of natural inclinations. The text of SA1 is quite simple, with the usual clarifying interventions of SA2. The genesis and accretion of moral virtue depends on honest behavior, since it is not something that we as humans naturally ("per naturam;" SA1 p. xlvi, SA2 p. 203) possess.[75] The naturality of virtue is therefore logically negated on the basis that "[r]es enim naturales non egrediuntur a natura sua per assuetudinem" [things natural do not in fact abandon their own nature because of custom; Ibid.]: since moral virtue can indeed change its state from non-moral to moral, while things natural cannot (for instance, a stone will always fall to the ground, no matter how far up is thrown),[76] it must logically be deduced that morality is not naturally possessed. In his translation, Taddeo preserves the main points of this first series of statements, while also providing logical connectives that

[75] SA1, p. xlvi: "Generatio autem uirtutum moralium est per bonam et honestam conuersationem; neque sunt in nobis per naturam. Res enim naturales non egrediuntur a natura sua per assuetudinem" [The genesis of moral virtues is through good and honest association; nor are they in us naturally. Things natural do not in fact abandon their own nature because of custom].

[76] The image is already in SA1, p. xlvi: "ut petra, que sempter tendit ad centrum naturaliter" [like the stone, that always naturally tends to the center of the earth].

stitch together the affirmations of the *Summa*.[77] In further explaining the natural tendencies of all things natural, Taddeo also reinforces the generality of the issue by adding that "universalmente" [universally] no natural thing acts "naturalmente" [naturally] in a manner that is contrary to its own nature. The conclusive statement of the *Summa* is that, while we do not possess moral virtue in our nature, its acquisition is not against nature because we have the potentiality to acquire it, and we can realize and perfect said potentiality through becoming accustomed to good behavior.[78] Taddeo expands this passage quite considerably, while introducing a concessive statement that is not in the original.

> Ma *advegna che* questa vertude non sia in noi per natura, la potença del riceverla è in noi per natura, et il compimento è in noi per usança. Onde queste virtudi non sono in noi alpostucto sança natura, né al postucto secondo natura, ma la radice et il cominciamento di ricevere queste virtudi sono in noi per natura.
>
> [But albeit this virtue is not in us naturally, the potency to receive it is naturally in us, and the perfection is in us through custom. Therefore, these virtues are not absolutely in us without nature, nor absolutely according to nature, but the root and beginning of receiving them is in us naturally; *Ev* II 2, f. 20rb; my emphasis].

Taddeo is apparently keen on explaining that the acquisition of moral behavior (or lack thereof) is not something that is, as it were, pre-destined in us, for we all possess the natural capacity to learn how to behave rightfully. Taddeo also passes over the doctrinal difficulty of the *Summa*, which defines these virtues just by negation (*non sunt naturaliter... neque preter*

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[77] See for instance *Ev* II 1, f. 20ra-b: "*Con ciò sia cosa che* sieno due virtudi" [although this virtue is twofold], or "*perciò che* lla cosa naturale non si puote mutare" [because the natural thing cannot be changed]; my emphasis.

[78] SA1 p. xlvi: "Non sunt itaque in nobis uirtutes morales naturaliter, neque preter naturam; sed nati sumus ad earum receptionem et perfitiuntur in nobis ex bona consuetudine" [Moral virtues are naturally in us, nor against nature; but we are born with the capacity to receive them, and we can perfect them through good customs].

naturam), with the oblique translations "sança natura" and "secondo natura," while reaffirming the universal predisposition to moral education through the image of the "radice et cominciamento." In terms of scientific statement, by gliding over the naturality in act of the moral virtue, the text is able to avoid completely the problem of predisposition. In the previous section, we have seen how the association of nature and essence was at the core of Galen's position in *Quod animi mores*, where he is able to affirm that moral behavior depends upon our natures precisely thanks to the identity between *physis* and *ousia*.[79] The preference given to this position in ethical philosophy, and the unwavering enthusiasm with which Taddeo comes back to the same concept, is testimony to his attempt to found a moral system that is able to eschew the somatic determinism of his medical formation.

But this is a topic with which Taddeo keeps wrestling during the course of his work. Later in his *Etica*, he discusses again the relationship between *natura* and *usança*, while apparently missing the point of his exemplar. Book 7 gives a wide panorama of different human natures and the relationship between tendencies and natural dispositions. The very short chapter 7 states in gnomic form that "[m]utare l'usança è più forte cosa che mutare la natura, ma mutare l'usança è grave cosa, perciò ch'ella è simigliante alla natura" [to change one's habit is harder than to change one's nature, but to change habit is a difficult thing for it is similar to nature; *Ev*

[79] See above 3.3 *Towards a Galenic Somatic Determinism*.

VII 7, f. 35v].[80] This passage seems to go against what has been said above regarding the same relationship, for Taddeo has proved already with a negative syllogism that habit is not given to us naturally, since natural things cannot be changed (*Ev* II 1). While asserting that changing one's customs is much more difficult than changing one's nature, for they are similar things, Taddeo is not only going against one of the demonstrations that ground his entire moral philosophy, but also misinterpreting the original source. As a matter of fact, both SA1 and SA2 say the opposite of what Taddeo translates, where they both agree on saying that "permutatio consuetudinis *facilior* est permutatione nature" [to change one's custom is easier than to change one's nature; my emphasis].[81] Since we lack a critical edition of the text, it is impossible to

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[80] Thanks to Milani, *Materiali per una storia della tradizione* cit., I was able to collate the passage with other manuscripts, and they all report the same version, with slight differences: Florence, Biblioteca Riccardiana, MS. Ricc. 2221: "Mutare l'uçansa et più forte cosa che non è mutare l'uçansa e ggrave cose però ch'ella è simigliante a la natura;" Florence, Biblioteca Mediceo-Laurenziana, MS Plut 42.19: "Mutare l'usança è più forte che mutare la natura, però che l'usança è simile a la natura;" Florence, Biblioteca Nazionale Centrale, MS II ii 48: "Mutare l'usanza è più fortte chosa che mutare la natura, ché mutare l'usanza è grave chosa però ch'ell'è somigliante alla natura;" New Haven, Yale University Library, MS Marston 28: "Mutare l'usança si è più forte cosa che mutar la natura, ma mutar l'usança si è grave cosa, inperciò che ll'usança si è somigliante alla natura;" Florence, Biblioteca Nazionale Centrale, MS Pal. 634: "Mutare l'usança si è più forte cose [sic]...;" Florence, Biblioteca Nazionale Centrale, MS Pal. 510: "Mutare l'usança è più chosa forte, e mutare l'usança è grande cosa perch'ell'è simigliante alla natura." Almost identical also Madrid, Biblioteca Nacional, MS 10124, Florence, Biblioteca Nazionale Centrale, MSS. Magl. XII 57, and II iv 106. To this list, I can add a manuscript I was able to check personally in Venice, Biblioteca Marciana, MS It. II 71 (=5199): "Mutare l'usança si è più grave cosa che mutare la natura. Mutare l'usança è grave cosa perciò ch'ela è somelliante a la natura." This last manuscript is missing in the recensiones compiled by both Marchesi and Gentili, but it is described in Milani's dissertation.

[81] SA1, p. lxx: "Permutatio consuetudinis facilior est permutatione nature. Attamen consuetudinis permutatio difficilis est propter similitudinem quam habet cum natura;" SA2 p. 231: "Permutacio etiam consuetudinis facilior est permutatione nature. Adtamen consuetudinis permutacio difficilis est propter similidutinem quam habet cum natura" [To change one's custom is easier than to change one's nature. Nevertheless, to change one's custom is difficult on account of its similarities to nature].

ascertain the philological status of this passage, but the comparative collation of a number of manuscripts seems to testify to a general agreement, which could depend either on Taddeo's own peculiar translation or on an archetypical error that propagated through the entire manuscript tradition (even though the manuscripts waver between *forte* and *grave* in the same place). Although the relationship between Brunetto's *Trésor* and Taddeo's *Etica* is still matter of debate, it would be fruitful to note that the French version offers a text that is correct and closer to the *Summa*, where even the lexical choices of the translator show an apparent dependence on the Latin source only.[82]

If further philological investigation should confirm the textual facies of the passage, this would be a relevant example of Taddeo's discussion upon the relationship between habit and nature. The preference given to the natural side of things could be due to his background as a Galenist medical doctor, whose professional practice indeed states the importance of changing one's nature (the *physis*) before attempting to try to change one's customs, since both essences are so tightly bound that any forcing of one's natural predisposition would be unfruitful in terms of ethical education.

The intricate nexus between habit and nature resurfaces later on in two different passages of the *Etica*. In discussing the difference between unchastity and incontinence, Taddeo further admits that the former is a kind of wicked habit in which the subject gets used to yield to temptation, while the latter is simply due to the great power of desire over the concupiscible part

[82] See Brunetto Latini, *Tresor*, eds. P.G. Beltrami et alii (Turin: Einaudi, 2007), bk. II, ch. 40 *Ci parole de delit*, p. 40: "Remuer les mors et les us est plus legiere [*facilior*] chose qu[e] remuer nature, et reporquant [*attamen*] remuer usaige est grief [*difficilis*] chose por ce que il est semblables [*propter similitudinem*] a nature" [To change once customs and habits is easier than to change one's nature, and moreoever to change one's habits is a hard thing, for they are similar to one's nature].

of the soul. This distinction implies that while incontinence can indeed be corrected through proper moral behavior, "l'uomo incasto non si puote quasi mai correggere" [the unchaste man almost never can be corrected; *Ev* VII 11, f. 26ra] because, as we were told before, habits constitute almost a second nature and are therefore hard to change.[83] This passage seems to confirm the reading above in which nature and custom are read as one thing in the process of ethics, while creating a dense aporia in the system altogether. An aporia that Taddeo will not solve, since at the end of the book he reaffirms the possibility of getting rid of people who are impenetrable to education and morality.[84]

Taddeo shows a propensity for the use of the word *natura* to convey different concepts of the *Summa*. In discussing practical applications of the Aristotelian theory of the means, Taddeo is able to use a felicitous turn of phrase to explain how the relationship between the extremes and the mean is not best configured as a line, but is better conceived as an isosceles triangle (fig. 1), in which all the points are extremes to each other, but two extremes are further apart that the point on the height:

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[83] *Ev* VII 11, f. 26ra: "Adunque l'uomo incontinente si è quelli ch'è vinto dalle dilettationi le quali lo stimolano fortemente; ma l'uomo incasto si è quelli lo quale si lascia vincere alla dilettatione la quale no-llo stimola. [...] Adunque [l'uomo incontinente] non è senplicemente reo, ma è meçço reo et puotesi correggere se la vertude et la speriença si confortano, ma l'uomo incasto non si puote quasi mai correggere" [Therefore, the incontinent man is the one who is won over by pleasures, which spur him strongly. But the unchaste man is the one who is won by pleasures that do not spur him. Therefore, the incontinent man is not really wicked, but only half wicked, and can be corrected if virtue and experience comfort each other. But the unchaste almost never can be corrected].

[84] *Ev* XII 3, f. 44va: "Sono huomini li quali si possono correggere per parole, et sono huomini li quali non si possono correggere per parole, ançi è mestieri pena. Et sono altri li quali non si correggono in niuno modo di questi due modi, et questi cotali sono da tôrre di meço" [There are people who can be corrected through words, and there are people who cannot be corrected through words, but need pain. And there are others who cannot be corrected in either way, and you must get rid of these people].

Tre sono le dispositioni nell'operationi dell'uomo, cioè più et meno et meçço; et tucte queste cose sono contrarie infra sé, perciò che gli stremi sono contrarii infra sé (ché-l poco si è contrario al troppo) e-l meçço si è contrario ad amendue gli stremi, cioè al poco et al troppo. Onde se tu fai conperatione intra-l poco e-l meçço, il meço si può dicere troppo; et se tu fai conperatione intra-l meçço e-l troppo, lo meçço si può dicere pocho.

[The dispositions in human actions are three: too much, too little, and the mean. And all these things are opposite to each other, for the extremes are opposite reciprocally (since too little is the opposite of too much), and the mean is the opposite of both extremes, i.e. too little and too much. Therefore, if you compare too little with the mean, the latter would be too much; and if you compare the means with too much, the former would be too little; *Ev* II 12, ff. 22rb-22va].

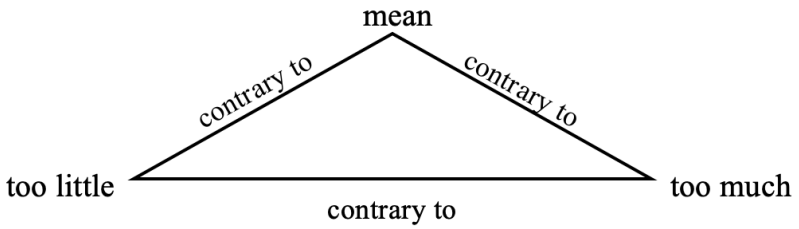

fig. 1

This explanation is at the center of Taddeo's rendering of the passage as a whole. After having described the oppositions between extremes and just mean, Taddeo explains the reason why in the majority of cases one of the extremes in a series of vices and virtues is closer to the mean than the opposite one (e.g., prodigality is closer to magnificence than to avarice).[85] This imbalance in the theory of the mean is based on two different reasons: one is "la natura della cosa" [the nature of the thing], the other is "dalla nostra parte della natura" [according to our nature; Ibid., 22va]. With these two expressions, Taddeo introduces a concept of essence as

[85] *Ev* II 12, f. 22va: "Ma sappi che maggiore contrarietà àe intra ll'uno stremo e l'altro che non àe intra gli stremi e-l meçço. Sono tali stremi che sono più presso al meçço che altri. Verbi gratia: l'ardimento si è più presso alla forteçça che non è alla paura; et a la prodighalità si è più presso la largheçça, che non è a l'avaritia" [But know that there is a greater opposition between one extreme and the other, than between the extremes and the mean. There are such extremese that are closer to the mean than others. Verbi gratia: courage is closer to fortitude than fear; and magnificence is closer to prodigality than avarice].

physis that is not present in the Latin of the *Summa*, which reads respectively "ex parte rei" [on account of the thing] and "ex parte nostri" [on account of ourselves],[86] thus proposing once again a malleable use of the term *natura* with respect to the different contexts.

Taddeo's relationship with the concept of predisposition and nature does not reach a coherent system, but varies according to the issue at stake. In demonstrating that humans are responsible for their actions, Taddeo inserts a hypothetical clause suggesting that, if everybody is responsible for their own customs, it is due to either a perfect disposition of the soul, or good exercise in moral choices. This perfect disposition ["perfecta et buona natura nell'uomo"] cannot be acquired through education ["né per consuetudine né per doctrina"], but it is a rare condition that renders the human a special kind of being.[87] The point of this chapter is to open the possibility of a virtuous genre of humans who are naturally able to discern between right and wrong, and act accordingly to their moral awareness. All other beings need to go through a process of trial and error in which their own will ["secondo la volontà dell'uomo"] is constantly put to test and is dependent upon free will ["ad albitrio"]. Custom therefore, is not one with the

[86] SA1, p. l: "Et contingit quidem istud propter duas causas, siue (SA2, p. 208: scilicet) ex parte rei et ex parte nostri" [And this happens on account of two causes, namely on account of the thing, and on account of ourselves].

[87] *Ev* III 7, f. 24va: "Adunque se ciaschuno huomo è chagione del suo abito et chagione della sua inmaginatione in alchuno modo, o egli è bisognio che egli abbia sança suo esercitio alchuno naturale principio per lo quale egli è disposto a conoscimento di bene et di male, et a volere fuggire il male et seguitare nello bene, perciò che ottima cosa è, lo quale non è possibile d'avere né per consuetudine né per doctrina, ma è nell'uomo per natura. Et questa si è perfecta et buona natura nell'uomo" [Therefore, if anybody is cause of their custom and imagination in any way, it is either needed that they have a natural principle through which, without any effort, they might be disposed to the knowledge of right and wrong, and to flee from wrong and follow the good, because it is a great thing, that cannot be achieved through habit or education, but it is naturally in (certain) humans. And this is the perfect and good nature of men].

will, but will does begin the logical chain that ends up with moral choice, as Aristotle had explained in his *Nicomachean Ethics*.

We are left wondering how this unwavering faith in the possibilities of reason and will may coexist with the discussion on the nature of fury. Later in book 7, Taddeo makes a distinction in seriousness between those who act wrongly due to their wrath, and those who cannot control their desires. While explaining that both are forms of incontinence, Taddeo says that incontinence of wrath merits more mercy because it is due "per forte calidità et per velocità di movimento" [to the great hotness and to the rapidity of movement], while incontinence in one's desires is a much greater offence to morality.[88] Due to its hot elemental quality, the temperamental nature of wrath makes the subject so quick in their actions that incontinent behaviors are almost bound to happen, thus forcing the moral system described moments ago to accept a scenario in which reason is excused if it does not brace itself against the rapid jolts of temperamental desire. The complexion of the subject in question therefore is part of the variables that one has to take into account when judging the events, but it is also part of a system in which the temperamental *physis* of the human is unquestionably part of the habits and the essence of morality, to the point even of total identification.

Another point in which Taddeo departs from the mere literal translation of the text of the *Summa* is on the issue of instrumentalism in Aristotelian ethics. As we have seen above, Aristotle's psychology in the *Nicomachean Ethics* does not present his mature stage of

[88] *Ev* VII 5, f. 34rb: "Et questa incontinença la quale è nell'ira si è per forte calidità et per velocità di movimento, et perciò si è da perdonare più a costui che non è a colui che è contenente [sic] *** della conchupiscença" [And this incontinence of wrath is due to the great hotness and to the rapidity of movement, and therefore must be excused more than the incontinence of concupiscence]. The passage is corrupted, however transparent in the general sense. MS Ricc. 2221 reads "e però si è da perdonare più a costui che none a colui ch'è incontenente ne la concupisciensia," with a better *lectio*.

hylomorphism, but defines the relationship between body and soul in terms of form using matter for a scope, i.e. an instrumental relation between the substances.[89] As expected, the question is presented in the text of the *Summa* as well, but Taddeo's translation complicates the terms of the comparison. SA1 explains that the relationship between "dominus" [lord] and "subditus" [subject] is similar to that between "artifex" [craftsman] and "instrumentum" [tool], and that between "anima" [soul] and "corpus" [body].[90] The parallels are clearly drawn between active and passive elements, between subject and object, so much that their instrumental relation is further described is terms of one-way benefits and love. Lords, craftsmen, and souls all benefit from the use of their instruments – respectively, subjects, tools, and bodies –, and that consists in their unrequited love for the object in question.[91] The relationship does not go both ways. As a matter of fact, the instrument does not love the user back, and the same can be said between the body and the soul.[92] Taddeo mistranslates the rapport between the elements of the comparison, by affirming that "[l]o singnore et il suddito si ànno relatione insieme, sì ccome l'artefice e-l suo strumento, *et sì ccome il corpo et l'anima*" (*Ev* VIII 11, f. 38ra; my emphasis), therefore

[89] See above 3.2 *Aristotle's Hope for a Guiding Reason*.

[90] SA1 p. lxxiv: "Dominus et subditus habent se tamquam artifex et instrumentum et tamquam anima et corpus" [The relationship between lord and subject is like that between craftsman and tool, and between soul and body].

[91] Ibid.: "Et utens quidem instrumento proficit per ipsum in tantum quod ipsum diligit" [And said user through the instrument benefit from that to the extent that it loves it].

[92] Ibid.: "in instrumento autem non est dilectio circa utentem se, neque corpore erga animam" [in the instrument there is no love with respect to the user, nor in the body for the soul].

inverting for a moment the instrumental relation between body and soul.[93] By reading the sentence in Taddeo's *volgarizzamento*, it would appear that is indeed the body to have the upper hand over the soul, mastering its dominance over the events of subjectivity and thus making the mind enslaved to the materiality of the *physis*. In terms of *dilectio*, as much as the instrument does not love the user, "simigliantemente il corpo non ama l'anima" [similarly the body does not love the soul], and thus the original relationship between the elements of the comparison is reinstated, even though by means of a negation. Curiously enough, Taddeo inverts the interconnections between body and soul in the chapter that most explicitly describes the instrumentality of matter and form, thus creating a short circuit that, without the comparison with the original source or an effort in logical deduction, would bring the reader to affirm a thesis of declared somatic determinism.

The final take on the use of mind and its relationship with the attainment of happiness brings forth interesting positions in both the source text and Taddeo's rendering. As we have seen before, the greatest happiness there is pertains to the use of the speculative intellect, whose operation of thought is able to provide the highest good for the human mind and ultimately its perfection. Even though as human beings we are bound to the necessities of our world, which are often capable of preventing us from using our speculative faculty, our "intelletto speculativo

[93] Same phrasing also in the other manuscripts collated by Milani: MS Ricc. 2221, "si come corpo e ll'anima;" MS Plut. 42.19, "sì come el corpo e ll'anima;" MS II ii 48, "sì cchome il corppo e ll'anima."

sempre è im [sic] pace et in tranquillità," thus bringing us a true peace of mind.[94] The insertion of the following passages however implicates a series of problematic statements with respect to orthodoxy, since both Taddeo and the *Summa* agree in saying that the use of the speculative intellect requires a terminable span of life, for true happiness cannot have anything incomplete in it.[95] This apparent neutral statement entails a series of logical consequence in terms of anthropology and human life, since with it Taddeo is affirming that human happiness is bound to human time, which is complete and not eternal. We cannot be happy outside of time, as it were; therefore, true intellectual happiness can be achieved only during our lifetime, and not outside of it. This argument is not easy to digest in terms of theological speculation, since it would imply that eternal happiness in the afterlife is incomplete because eternal, and therefore impossible.

Taddeo does not comment further on this point, but the mere mention of one of the hottest topics of debate among theologians and artists in the second half of the 13th century is symptomatic of an attitude that brings Aristotle and Aristotelian ethics to the forefront of the

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[94] *Ev* XI 3, f. 43rb: "l'operatione della sapiença si à dentro a sé ciò che lle bisogna; ma tuctavia l'uomo savio s'elli àe chi l'aiuti si adopera più perfectamente nelli suoi pensieri. Adunque questa felicità non è altro se non è operatione di sapere et di pensare. La presente filicità si è in battaglia per chagione di salute et di pace, et questo si pare manifestamente nelle cittadi le quali fanno battaglia insieme per avere pace et riposo, et così adiviene in tucte l'altre virtudi di bactaglia, ché sempre intende l'uomo ad alchuna cosa di fuori" [the operation of sapience has in itself all that it needs, but nonetheless the wise man can use his mind more completely if he gets what he needs. The present happiness is at war with health and peace, and this is manifest among the cities, which are in battle to have peace and rest. And this happens in all other virtues of war, for humans are always intent in getting something outside of them].

[95] Ibid.: "ma si abisognia compiuto spazio di vita, perciò che non si conviene alla filicità ch'ella abbia niuna cosa inperfetta;" SA1, p. lxxxiii: "attamen spatio vite completo indiget. Non enim comparatur felicitati aliquod incompletum" [but it requires a completed span of life, because it does not pertain to happiness to have anything incomplete].

intellectual battleground.[96] Taddeo then is able to veer back into more acceptable positions when he translates the subsequent part of the *Summa*, where it is said that a human being, "quand'elli viene a questo grado di felicità non vive per vita d'uomo, ma vive per vita di quella cosa divina la quale èe nell'uomo" [when he attains this status of happiness, he does not live a human, but a life through that divine thing that is in the human; *Ev* IX 3, f. 43rb]. The use of intellectual speculation is thus our true happiness in life, but it is also the resource through which we can experience the divine life in us. By means of the divinity of speculation, human beings experience the true life for which they have been created, and are reminded to follow a life of wisdom and morality whereby they force themselves "ad esser inmortal[i]" [to be immortal, *Ev* XI 3, f. 43va]. This life is the most noble and praiseworthy achievement of humanity and the compass of an existence founded in wisdom and ethics. The previous statement about the problematic status of human speculation and happiness is therefore moderated by a recuperation of the divine part in us through intellection. However, as readers of the *Etica* we are left wondering how this search for a speculation that rekindles the divine essence in us can ontologically be consistent with the idea of rationality as the truer human condition of before.

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[96] Bibliographical resources on the question of "intellectual happiness" doubled in the past few decades. Maria Corti, *La felicità mentale. Nuove prospettive per Cavalcanti e Dante* (Turin: Einaudi, 1983), although historiographically passé, is still important for the success of the expression in the title. Among the others, see Gianfranco Fioravanti, "La felicità intellettuale: storiografia e precisazioni," in *Le felicità nel medioevo*, eds. M. Bettetini, F. Paparella (Louvain-la-Neuve: Fédération Internationale des Instituts d'Études Médiévales, 2005), pp. 1-12; Id., "Desiderio e limite della conoscenza in Dante," in *Forme e oggetti della conoscenza nel XIV secolo. Studi in ricordo di Maria Elena Reina*, eds. L. Bianchi, C. Crisciani (Florence: SISMEL-Edizioni del Galluzzo, 2014), pp. 7-20; Luca Bianchi, "Filosofi, uomini e bruti. Note per la storia di un'antropologia 'averroista'." *Rinascimento* 32 (1992), pp. 185-201, now in Id., *Studi sull'aristotelismo del Rinascimento* (Padua: Il Poligrafo, 2003), pp. 41-61; Id., "Felicità terrena e beatitudine ultraterrena: Boezio di Dacia e l'articolo 157 censurato da Tempier," in *Chemins de la pensée médiévale. Mélange Zénon Kaluza*, ed. P.J.J.M. Bakker (Turnhout: Brepols, 2002), pp. 335-50, all rich in bibliography.

How can the intellectual soul be at the same time the distinctive quality that makes us human with respect to the rest of animated entities in the world, while also being the door that opens our mind to the contemplation of divine things, things *praeter humanitatem* that make us live "non [...] per vita d'uomo," but "per vita di quella cosa divina la quale èe nell'uomo"?

Neither Taddeo nor the *Summa* answer this question, as they project the solution in a dimension that is beyond the limits of human attainment. As a later chapter states, "[p]erciò che l'operatione dello intelletto speculativo si è *fine della vita dell'uomo* et è *exemplo* della verace beatitudine," therefore "l'uomo lo quale *più continuamente* si sforça d'intendere et di pensare di quelle cose si è *più simigliante* a coloro che ssono nella *verace beatitudine*" [Since the operation of the speculative intellect is the end of human life, and it is an image of true blessedness... And the one who more continuously strains to think and understand those things, is more and more similar to those who are in true blessedness; *Ev* XI 5, f. 43vb; my emphasis]. Taddeo here stresses the difference between the "exemplo," a mere reproduction of the "verace beatitudine," that makes us "simigliante" to those who are projected outside human life. But the lexical choices of the translation intensify the question of the continuity in the activity of the intellect, while also veering from the "vere felicibus similiores" of the *Summa* to those who are "più simigliante a coloro che sono nella verace beatitudine" (Ibid.).[97] *Felicitas* and *beatitudo* are not necessarily interchangeable terms,[98] and it is noteworthy how Taddeo voices this tension while discussing intellectual happiness in human life.

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[97] SA1 p. lxxxiv: "Homines igitur perfectius hunc auctum et magis usum eius continuantes sunt feliciores quia vere felicibus similiores" [Therefore, those who are more complete in that act and more continuous in that use are happier, because more similar to those who are truly happy].

[98] On the implication of this distinction in Medieval philosophy, see Irene Zavattero, "Felicitas-beatitudo," in *Mots médievaux offerts à Ruedi Imbach*, eds. I. Atucha, D. Calma, C. Koenig-Pralong, and I. Zavattero (Porto: FIDEM, 2011), pp. 291-302. On the heterodox risks of

Far from being a mere *volgarizzamento*, Taddeo's *Etica* is testimony to a continuous debate around topics that are relevant for both the academic circles of the physicians and the philosophers of ethics. In his lexical choices and in the attention given to specific passages in the vernacular, Taddeo voices his investment in an intellectual exchange that questions the relationship between body and soul, the weight of the *physis* in the features of the mind, and the repercussions of intellectual happiness in terms of anthropological theories. In the following (and last) section of this chapter, I will investigate how these debates are not detached from coeval exchanges in poetry around the nature of love and its interconnections with reason, and I will show the ways in which the poets articulate the naturality of passion in doctrinal discourses, and how they shape a specific *forma mentis* on the relationship between matter and form.

3.4.2 The Poets

Through my analysis of some poems written by Guido Cavalcanti, Dante Alighieri, and Cino da Pistoia, I will keep in mind three major points of investigation, which constitute a schematic synthesis of the debates around Galenic determinism and Aristotelian ethics that I traced in the previous sections of this chapter. First of all, the communication between corporeal and incorporeal sides, viz. the independent activity of the soul over the so-called tyranny of the body, has to take into account the "interruption" deriving from material causes. Matter, in being

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Galenism in Dante's work, see Paola Ureni, "Aspetti eterodossi nel pensiero medico. Una filigrana galenica nella scrittura di Dante," in *Ortodossia ed eterodossia in Dante Alighieri.* Atti del convegno di Madrid (5-6 novembre 2012), eds. C. Cattermole, C. de Aldama, C. Giordano (Madrid: Ediciones de La Discreta, 2014), pp. 303-24, and Ead., "Medicine and Radical Thought, a Possible Galenic Presence in the *Commedia*," in *Dante and Heterodoxy: The Temptations of 13th-Century Radical Thought*, eds. T. Barolini, M.L. Ardizzone (Newcastle upon Tyne: Cambridge Scholars Publishing, 2014), pp. 225-41; Ead. "Medicine and Dante's Political Thought," in *Dante as Political Theorist: Reading* Monarchia, ed. M.L. Ardizzone (Newcastle upon Tyne: Cambridge Scholars Publishing, 2018), pp. 209-22.

exposed to the shaping of form, is the embodiment of the category of πάσχειν, "to be affected," Lat. PATĪ, as described by Aristotle in *De generatione et corruptione* (I 7; 324 b 17-20) and *Metaphysics* (VI 2; 1027 a 12-15).[99] In both medicine and ethics, this hierarchy gives a different sense to the instrumental relationship between soul and body, whereby the latter ends up being the only physical principle of the human altogether, as in Galen's *Quod animi mores*. Secondly, in order for an ethical philosophy to produce a practical method in which followers are guided through a moral education, the philosopher has to operate a full-fledged "choice": between soul and body. The choice is practical in the same sense that Aristotle gives it at the beginning of the *Nicomachean Ethics*, even though the philosophical results are necessarily approximate. Thirdly, these debates enrich the lexical area of the words connected with *physis*, i.e. what is "natural" is directly dependent upon the philosophical framework of a discourse in ethics and somatism. These three points are mirrored in the poetical exchanges on the nature of love and reason at the turn of the century, in which the interrupted communication between rational and desiderative principle, the unwavering bias for either of the two, and a different understanding of naturality, are going to be framed under the debates on love.

In this respect, with his *Donna me prega* [XXVII^{b}] Guido Cavalcanti gives us one of the major instances of what Domenico De Robertis called the "principle (and obligatory) theme of 13th-century poetic meditation,"[100] i.e. the nature of love. By enclosing his viewpoint on love

[99] These two passages are at the core of Maria Luisa Ardizzone's reading of passion in Cavalcanti's *Donna me prega*, on which see Maria Luisa Ardizzone, *Guido Cavalcanti. L'altro medioevo* (Florence: Cadmo, 2006).

[100] Guido Cavalcanti, *Rime, con le rime di Iacopo Cavalcanti*, ed. D. De Robertis (Turin: Einaudi, 1986), citation at p. 93. Quotations from Cavalcanti's poems are from this edition, but for the canzone *Donna me prega* I will consider Giorgio Inglese's revised critical edition in Guido Cavalcanti, *Rime*, ed. R. Rea (Rome: Carocci, 2011). My translations here and elsewhere.

within the forces of passion, limited to the sensitive part of the human soul, and often cause of death for the subject, Cavalcanti delineates a trajectory that embraces many other poems in his production.[101] Although De Robertis (and Bruno Nardi before him)[102] consider Andreas Capellanus the first point of reference for the canzone, in recent years Natascia Tonelli has argued that the issues tackled in the poem are discussed in the medical field as well, way before Andreas' *De amore*.[103] Moreover, I will add that Cavalcanti's reflection upon the limitations of human liberty caused by love is at odds with Andreas' attention paid to the principle of *arbitrium*, which is generative also of all the specific recommendations that constitute a great part of the treatise.[104]

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[101] I therefore agree with Mario Marti, *Poeti del Dolce stil nuovo* (Florence: Le Monnier, 1969), p. 119, in considering *Donna me prega* the "centro ideologico e ispirativo" of Cavalcanti's poetry.

[102] See Bruno Nardi, "Filosofia dell'amore nei rimatori italiani del Duecento e in Dante," in Id., *Dante e la cultura medievale*, ed. P. Mazzatinti (Bari: Laterza, 1990^2), pp. 9-79.

[103] See Natascia Tonelli, *Fisiologia della passione. Poesia d'amore e medicina da Cavalcanti a Boccaccio* (Florence: SISMEL-Edizioni del Galluzzo, 2015).

[104] Recommendations that would not stand a chance if the lovers would not be free to choose their destiny; see for instance *De amore* I ii 4: "assidue videmus amantes ex libero arbitrio se subiugare" [we continually see lovers submit to (perils) of their own free will], and 8: "Nota etiam, quod amans nihil sapidum ab amante consequitur nisi ex illius voluntate procedat" [Note, too, that nothing which a lover gets from his beloved is pleasing unless she gives it of her own free will]. The famous principle according to which anybody who loves must be loved back, is disproved by the noblewoman in I vi B.87: "cuiuslibet generaliter personae amor commisit arbitrio, ut si velit amet eum qui petit amari, vel non amet si nolit amare" [Love regularly leaves it to the choice of each woman either to love or not, as she may wish, the person who asks for her love], also confirmed few lines below, I vi D.194: "Liberum tibi eligendi amori esse non dubitatum arbitrium" [There is no doubt that you have a free right to choose which one you will love]. Quotations are from *Andrea Capellani regii Francorum De amore libri tres*, ed. E. Trojel (Havniae: In libraria Gadiana, 1892). Eng. transl. by J.J. Parry, Andreas Capellanus, *The Art of Courtly Love* (New York: Columbia University Press, 1960).

Whether or not directly inspired by Guido Orlandi's *Onde si move, e donde nasce Amore?*, Cavalcanti's *Donna me prega* progresses into the philosophical demonstration of a series of well-ordered points, all laid out in the first stanza of the canzone: what love is; how it is generated; what its virtues are; what its potency is; what its essence is; its movements; the quality of pleasure; its visibility (*Donna me prega*, vv. 9-14). The programmatic nature of the first stanza is clear from the reference to the "natural dimostramento" [demonstration based on natural arguments, v. 8], which engrosses the philosophical lexicon of the poem. The first major instance of a Scholastic approach to the nature of love is in its definition as "accidente" [accident, v. 2], as opposed to a substance existing per se, and therefore not depending by necessity upon anything else. Maria Luisa Ardizzone has noted how this first important lexical choice inscribes Cavalcanti's analysis of passion under the Aristotelian category of πάσχειν, always connected to materiality and sensibility for its natural tendency of being disposed by the form.[105] This disposition is also connected to the natural potentiality of the matter, which may or may not possess already an intrinsic disposition that causes the accident to pertain to a specific substance.

This is a point that Dino Del Garbo, one of Taddeo Alderotti's pupils, discusses in his medical commentary on the poem. Dino explicitly refers to the natural disposition that could make the subject of the passion of love more easily susceptible so that he might fall prey to desire, or any other form of passion.[106] By referring to a later passage of the poem, Dino notes that this natural disposition is conversely dependent upon the configuration of the heavenly

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[105] See Ardizzone, *Guido Cavalcanti* cit., pp. 93-119.

[106] References to Dino's *Scriptum super cantilena Guidonis de Cavalcantibus* are from Enrico Fenzi, *La canzone d'amore di Guido Cavalcanti nei suoi antichi commenti* (Genova: Il melangolo, 1999), pp. 86-133.

bodies at the time of birth, which incline the matter in a specific direction. In the inscription of passion as accident, Cavalcanti is therefore signaling his readers that love is subject to the same forces of all other material entities in nature, whose *physis* is not entirely free to be shaped by any form, but it is connected to its natural and original disposition. In terms of medical and ethical discourse, this would imply that certain individuals are more prone to certain passions, which are inscribed, as it were, in their natural fibers, and therefore always already generated into the subject. As we have seen, Galen himself addresses this very issue when he asks what kind of justice can punish an individual who is prone to behave in a certain way, due to their own temperamental configuration (*Quod animi mores* 11; K IV: 814-15).

As I discussed in the previous section, the question of determinism is one of the extremes between which medical and ethical philosophy struggle to find a balance. In the second stanza, Cavalcanti writes that love "resides where memory is" ["In quella parte dove sta memora / prende suo stato," vv. 15-16], therefore he understands love within the dimensions of the sensorial activities of the human, for we know already that, according to medical and philosophical literature, memory is one of the faculties of the *virtus animalis*.[107] The material determinism is once again stressed in the oblique reference to the "scuritate / la qual da Marte vène" [obscurity that comes from Mars, v. 17-18] at the origin of love, which constitutes one of the natural dispositions that facilitates the insurgence of passion in humans.[108] As we have seen

[107] See 2.3 *A Galenic System Towards Reconciliation*, especially pp. 143-48, for an analysis of Johannitius' *Isagoge* and the issue of localization of cognitive faculties.

[108] On the influence of Mars with respect to love, see Nardi, "Filosofia dell'amore" cit. and "L'averroismo del primo amico di Dante," in Id., *Dante e la cultura medievale* cit., pp. 93-129; Corti, *La felicità mentale* cit., pp. 3-37; Ead., *Dante a un nuovo crocevia* (Florence: Sansoni, 1981), pp. 9-31, 77-85. On the relationship between cromatism of the planet and bodily influence, see Raymond Klibansky-Erwin Panofsky-Fritz Saxl, *Saturn and Melancholy: Studies in the History of Natural Philosophy* (London: Nelson, 1964), pp. 97-158.

regarding the material disposition of the body and its relationship to ethical behavior in both Aristotle and Galen, by affirming that a causal influence is generative of a specific conformation of the matter that will allow more easily the predisposition to love, Cavalcanti is using a language and a framework that complicates the relationship between psychological behaviors and bodily dependence.

In following with the definition of what love is and whence it comes, Cavalcanti further explains that love is created from sensorial perception ["Elli è creato da sensato," v. 19], and most importantly that it is "d'alma costume e di cor volontate" [habit of the soul and will of the heart, v. 20]. By pairing the *habitus* of the soul with the desires of concupiscence, Cavalcanti is framing the discourse on love under the aegis of both natural and ethical philosophy, and he also pinpoints the knot in which both discourses necessarily converge. In commenting on this passage, Dino interestingly translates "d'alma costume" as *mos anime*, which is the Latin translation used in the *Nicomachean Ethics* to render the Aristotelian concept of ἦθος, "character, behavior." The coupling with "di cor voluntate" on the other hand curbs the discussion into the framework of forceful sensitive appetite, which Dino reinterprets by focusing only on the word "voluntate." According to Dino, while a natural disposition is part of the equation, an elective decision has to be taken into consideration as well, since human will is always "libera et liberi arbitrii" [free and of the free will]. Unfortunately, the decisive swerve that Dino imposes upon the words of Cavalcanti does not consider how the poet is referring specifically to the will *of the heart*, and not to any will. Cavalcanti is able to create the condition for both readings by pulling together the behavior of the soul with the material disposition of desire, thus converging both ethical discourse and medical understanding of human psychology.

In the following stanza, Cavalcanti brings into discussion ethical philosophy once again when he discusses the "perfection" of human soul. These much-debated lines of the canzone are at the center of the Averroistic interpretation that Bruno Nardi proposed many years ago.[109] By affirming that love comes out of the sensitive part, and that this is the perfection of the human soul, Nardi found a decisive proof for Cavalcanti's adhesion to the monopsychist interpretation of Aristotle's *De anima*, circulating in Italy already in the second half of the 13th century. As we know from Averroes's commentary on Aristotle's *De anima*, the intellective part is one and common to all mankind, but necessarily it cannot be the *entelechia* of the human subject. Cavalcanti's reference to the sensitive appetite as perfection of the human soul also brings forth the issue of the intellectual dimension of the human, since it is negating the possibility of an appetite moderated by reason. As I showed already in my readings of Aristotle's *Nicomachean Ethics*, by affirming that the perfect principle of the human soul is its sensitive dimension, Cavalcanti is also debunking the Aristotelian point on the "desiderative thought" and "intellectual desire" as the main principle of human beings (VI 2; 1139 b 4-5). If there is no force that is able to oppose the power of passion on the rational soul, the ethical dimension of mankind is reduced to its sensitive part, and thus a healthy cooperation of desire and intellection is not

[109] Nardi articulated his interpretation, especially in (harsh) contrast with Guido Favati's Thomistic reading, and Mario Casella's, in a series of essays: Nardi, "L'averroismo del primo amico di Dante" cit.; Bruno Nardi, "Di un nuovo commento alla canzone del Cavalcanti sull'amore." *Cultura neolatina* 6-7 (1946-47), pp. 123-35, now in *Dante e la cultura medievale* cit., pp. 130-52, which criticizes Casella's reading; Id., "Notarella polemica sull'averroismo di Guido Cavalcanti." *Rassegna di filosofia* 3 (1954), pp. 47-71; Id., "Dante e Guido Cavalcanti," and "L'amore e i medici medievali," both in *Saggi e note di critica dantesca* (Milan-Naples: Ricciardi, 1966), pp. 190-219, 238-67, very much directed against Favati. Paul Oskar Kristeller, "A Philosophical Treatise from Bologna Dedicated to Guido Cavalcanti: Magister Jacobus de Pistorio and his 'Questio de felicitate,'" in *Medioevo e Rinascimento: Studi in onore di Bruno Nardi*, 2 vols. (Florence: Sansoni, 1955), vol. 1, pp. 425-63, gave substantial confirmation to Nardi's interpretation, by showing the intellectual exchange between an Averroist like Giacomo da Pistoia, and Cavalcanti, to whom Giacomo dedicates his treatise.

possible. Love is therefore the cause for the loss of connection with the rational faculty in human beings, and Cavalcanti understands that this negation necessarily entails a different "perfection" for the human mind, that does not correspond anymore to its moral responsibility.[110]

In the third stanza of the canzone, Cavalcanti shows once again how the physiological understanding of human beings cannot eschew an ethical discussion on their disposition. As we read further, Cavalcanti writes that, because of love's influence, the subject behaves "for di salute" [out of health, v. 32] when he substitutes sensorial desires for reason ["che la 'ntenzione per ragione vale," v. 33]. With these statements, we might think that love is a force against nature, i.e. that it pushes the individual to behaviors that are against the natural tendency of preserving one's life. Therefore, Cavalcanti operates an interesting distinction when he further explains that love is not "oppost' a naturale" per se [against nature, v. 38], but only insofar it goes against the natural faculties of the human body, "se forte la vertù fosse impedita / la quale aita la contraria via" [if by chance the virtue who aids the opposite way (i.e., the life force) should be impeded, vv. 36-37]. At first sight, it would appear that this point goes against a medical definition of what natural is, since illnesses and their causes are considered *res contra naturales*, for they push the *res naturales* of the body, such as the temperaments, "extra cursum suum" [out of their natural course; *Johannicii Isagoge*, § 1]. On the other hand, Cavalcanti makes the point that love, in being a passion perfectly inscribed in the *physis* of the human, is not against nature, but it might lead to an outcome that is the negation of life ["Di sua potenza segue spesso morte," out of its force death often follows, v. 35]. Love is therefore a natural force in being a consequence of the predispositions and inclination of the material components on which

[110] On the relationship between love and intellection, see also Gentili, *L'uomo aristotelico alle origini della letteratura italiana* cit., especially pp. 181-216, a fundamental book for the ethical and poetical discussion of this section.

humans depend, even when this course of action might go against the most natural force of all, namely life.

In the last volta of the third stanza (vv. 39-42), however, Cavalcanti suddenly shifts the question from a purely physical understanding of life to an ethical problem that takes into account the intellectual activities of the human being. While the "morte" [death, v. 35] of the first volta decisively inscribes death as a physical principle that goes against the natural faculties of life preservation, the closing lines of the stanza veer towards a different concept of life and death altogether. Cavalcanti affirms that it is not possible to state that a being is living when it is detached from "buon perfetto" [perfect good, v. 39], because it does not possess "stabilita [...] segnoria" [control over oneself, v. 41]. This part of the natural demonstration is therefore shifting the conversation from a medical standpoint to an ethical one, which necessarily is bound to the former, as we know already from the previous pages of this chapter. True life is in the rational activity of the mind, which tends towards the highest good, the *buon perfetto*, and when the subject is deprived of its "natural" end, it cannot be said that it is truly alive. We have seen already in the analysis of Aristotle's *Nicomachean Ethics*, and even more clearly in Taddeo's rendering of its epitome, that true beatitude abides in the rational activity of the human beings (*Ev* XI 2, f. 41vb).

In these brief lines, Cavalcanti's understanding of the human mind shows a curious similarity with Taddeo's discussion on physical pleasures and their relationship with ethics. Cavalcanti's last line of the third stanza draws a similarity between the non-life of those who went astray from the perfect good of their rationality, and those who forgot what the highest good is ["A simil pò valer quand'om l'oblia," v. 42]. Taddeo's injunction not to forget what the ultimate end of human life is creates a striking parallel between immortality and pursuit of

rationality, for he affirms that a human being "è tenuto di sforçarsi ad essere inmortale secondo la sua potença, et sempre si dèe sforçare a vivere per la più nobile vita che è in lui," i.e. a life "per lo 'ntelletto" [must force himself to be immortal according to his potency, and he must always force himself to live the noblest life that he is allowed to, i.e. a life for intellection; *Ev* XI 3, f. 43va].[111] Humans have to beware of pursuing solely material goods and pleasures, since "le dilettationi [...] si inbrigano lo 'ntelletto, et fanno all'uomo *dimenticare lo bene*" [pleasures bind the intellect, and make the human being forget the good; *Ev* VII 8, f. 35vb; my emphasis]. Thus, according to both Taddeo and Cavalcanti, when a human being forgets to pursue a life of reason, he/she conversely forgets how to be immortal, and condemns himself/herself to an incomplete life that only resembles a true form of living.[112]

The relationship between appetite and intellectual desire is addressed once again in the fourth stanza, when Cavalcanti finally defines the essence of love. In his definition, "l'essere è

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[111] *Ev* XI 3, f. 43va: "Ançi è tenuto di sforçarsi ad esser inmortale secondo la sua potença, et sempre si dèe sforçare a vivere per la più nobile vita che è in lui, perciò che, advegna che l'uomo sia piccolo della sua persona, èe sopraposto a tucte l'altre creature; onde la più dilettevole vita che è nell'uomo si è per lo 'ntelletto" [On the contrary, he must force himself to be immortal according to his potency, and he must always force himself to live the noblest life that he is allowed to, because, albeit humans are small, they are superior to all other creatures; thus the most delectable life there is, is a life for the intellect].

[112] Therefore, I do not think that there are two separate interpretations of what "death" means to Cavalcanti, one physicist as represented in Dino's commentary, and one philosophical as represented in Boccaccio's *Decameron* VI 9, as Inglese states in his commentary to the revised edition of the canzone cit., p. 157, and also in Giorgio Inglese, *L'intelletto e l'amore. Studi sulla letteratura italiana del Due e Trecento* (Scandicci: La Nuova Italia, 2000), pp. 3-55, especially 37-40. Consequently, I propose the coexistence of these two hermeneutic threads already in Cavalcanti himself, also strengthened by another parallel passage of his poetry, in *Tu m'hai sì piena di dolor la mente* [VIII]: "I' vo come colui ch'è fuor di vita, / che pare, a chi lo sguarda, ch'omo sia / fatto di rame o di pietra o di legno [I walk as one who is not alive, that appears as made of copper, stone, or wooden to those who see him, vv. 9-11], where death is assimilated to being an irrational object.

quando lo voler è tanto / ch'oltra misura di natura torna" [its essence is when desire is so much that it goes beyond the limits of nature, vv. 43-44]. Here he states that the *ousía* of love, i.e. the thing that makes it what it is, is one and together with an appetitive desire that eschews the boundaries of measure. Love must be excessive in nature, as proven already by Andreas when he affirms that it comes "ex [...] immoderata cogitatione" [from immoderate cogitation; *De amore* I i 1], but Cavalcanti brings this internal logic one step further. While Andreas only states that the *causes* that make love happen (i.e. the vision of something pleasing, and the consequent reworking in one's mind) are immoderate, Cavalcanti affirms that the very *essence* of love is immoderation, therefore stating the logical-metaphysical impossibility of a "reasonable" love, guided by rationality towards a healthy mean. When love is not immoderate, it simply *is not* love.[113] This point further substantiates the series of symptoms and external manifestations that constitutes the subsequent lines of the canzone, thus reinforcing an idea of love that is not only passion, but a force that needs a desire so great to break the boundary of natural appetite, and that condemns the human to a course of action that often leads to death, either physical and philosophical.

It is possible to investigate another thread in Cavalcanti's poetry, which connects the theme of aphasia with the impossibility of recollecting an image of the beloved lady. Some decades ago Giuliano Tanturli had argued that, in the cobla esparsa *Poi che di doglia cor conven*

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[113] As noted in Teodolinda Barolini, "Dante and Cavalcanti (On Making Distinctions in Matters of Love): Inferno 5 in its Lyric Context." *Dante Studies* 116 (1998), pp. 31-63, then in Ead. *Dante and the Origins of Italian Literary Culture* (New York: Fordham University Press, 2006), pp. 70-101, this is the exact opposite position taken by Dante already in the canzone *Doglia mi reca*. Cavalcanti's idea of immoderate love is present also in a poem usually ascribed to the "dawning" (De Robertis, p. 3) of Cavalcanti's poetry, namely the ballata *Fresca rosa novella* [I]: "ché solo Amor mi sforza / contra cui non val forza né misura" [for only Love compels me, against whom no force or measure is of help, vv. 43-44].

ch'io porti [XI], Cavalcanti stages both the topic and the awareness of its impossible narration at the same time, by interrupting a full-fledged canzone after one sole stanza. In this way, the silence of the other stanze is the metapoetic representation of Cavalcanti's incapability of telling his "doglia" and "ardente foco" [pain and ardent fire, vv. 1-2], thus resolving not to "mostr[are] quant'io sento affanno" [show how much grief I feel, v. 12].[114] This idea is indeed a theme particularly dear to Cavalcanti that shows how the loss of connection with rationality, caused by love, has major repercussions over the cognitive and sensitive faculties of the body.

In *Io non pensava che lo cor giammai* [IX], Cavalcanti tries to represent the material effects of his death by love, through the staging of his "sbigottimento" [dismay] in front of the potency of the sensorial representation of the lady. The poet affirms as soon as the second stanza that "Di questa donna non si può contare" [you cannot tell of this woman, v. 15], for she is adorned of so great an array of beauties, "che mente di qua giù no la sostene / sì che la veggia lo 'ntelletto nostro" [that mind down here does not sustain her (image), so that our intellect may perceive her, vv. 17-18]. Besides creating a doubling between individual sensitive mind "di qua giù," and an intellect shared in the plural pronoun ["nostro"], that might reinforce an Averroistic interpretation of human psychology, Cavalcanti prepares for the effect of *madonna* over the subject in love. The action of *pensare* is incapacitated by the "gran valore" [great power, v. 22] of her beauty, so much that the poet is unable ["di sì poca salute," of so little capacity, v. 31] to communicate to his own cognitive faculties "de la sua vertute" [about her virtue, v. 30].

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[114] See Giuliano Tanturli, "La terza canzone di Cavalcanti: «Poi che di doglia cor conven ch'i' porti»." *Studi di filologia italiana* 42 (1984), pp. 5-26. On Cavalcanti and the representation of aphasia in his poetry, see also Ardizzone, *Guido Cavalcanti* cit.; Elena Lombardi, "The Grammar of Vision in Guido Cavalcanti," in *Guido Cavalcanti tra i suoi lettori*, ed. M.L. Ardizzone (Fiesole: Cadmo, 2003), pp. 83-92; Federica Anichini, *Voices of the Body: Liminal Grammar in Guido Cavalcanti's* Rime (Munich: Martin Meidenbauer, 2009).

Cavalcanti's mind thus cannot operate even at a first, elementary level of discernment, that of retelling ["dire," v. 29] the sensorial experience that he just witnessed.

According to Aristotelian natural philosophy, the ability to recollect the images stored in memory requires a deliberate search within one's mind, because recollection is some sort of syllogism (Gk. τὸ ἀναμιμνήσκεσθαί ἐστιν οἷον συλλογισμόσ τις, Lat. reminisci est ut sillogismus quidam; *De mem*. 2, 453 a 11-12), and a kind of research (Gk. καὶ ἔστιν οἷον ζήτησίς τις, Lat. est ut questio quedam; Ibid. 453 a 14). The connection between the form of recollection and the rational activity of the syllogism implies that, while memory is fully an activity of the sensitive soul, reminiscence requires the activity of deliberation and rationality. This search within (Gk. ζήτησις, Lat. questio) is not possible if the subject is incapacitated in his rational faculty. Cavalcanti is exploring exactly this point in his canzone, which shows a physiology and psychology coherent with that described in *Donna me prega*. The activity of retelling the apparition of the lady is prevented by the loss of the ability to investigate within the sensorial materials stored in memory, and Cavalcanti is left with the mere awareness of an event that he is not able to recount. The same phenomenon is at the core of the poetic interruption in *Poi che di doglia*, where the poet cannot retell what happened once he witnessed the higher virtue of his lady, and the action of *dire* – once again, a verbalization that requires a first stage of recollection to be uttered – is left unfinished in the scattered stanza of the canzone. And it is once again represented in the failed visualization of *I' prego voi che di dolor parlate* [XIX], where the sensitive faculties are "sbigottite" by the perception of the lady, so much that her sensorial image cannot be completed into the poet's mind, "ch'oltra non puote color discovrire / che 'l 'maginar vi si possa finire" [so that (the mind) cannot manifest anything more than color to perfect the

action of the imaginative faculty, vv. 23-24].[115] In Cavalcanti's poetry, utterances are deprived of the material consistency of sensation and are limited to a series of images that "he does not narrate, but represents,"[116] because the cognitive faculties of his reminiscence are devoid of the investigative intervention of reason.

The tension between sensitivity and passion lurks in the poetical (and epistolary) exchange between Dante Alighieri and Cino da Pistoia, which will constitute the last example in my analysis on the subject. Dante's *Epistle* III is directed to an anonymous "Exulanti Pistoriensis" [a man from Pistoia who is going in exile; *Ep*. III, *salutatio*],[117] who is most

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[115] And see also *Posso degli occhi miei novella dire* [XXV], where the beauties of the lady cannot be known by "gente vile" [brutes, v. 9], "ché lo suo colore / chiama intelletto di troppo valore" [for her color requires so higher an intellect, vv. 9-10]. The only dramatic action left to the poet is the aphasic contemplation of a sensorial image too great for his mind to retain, as also in *Veggio negli occhi de la donna mia* [XXVI]: "Cosa m'aven, quand' i' le son presente, / ch' i' no la posso a lo 'ntelletto dire" [what happens when I am in her presence I cannot retell to the intellect, vv. 5-6].

[116] See Marti, *Poeti del Dolce stil nuovo* cit., pp. 119-20: "Onde la gamma di un lessico dell'angoscia e della paura che, mutuato dalla tradizione e nella sua persistente fissità arricchito di nuovi valori semantici, sottolinea le apparizioni dei rari personaggi della vicenda amorosa (poeta, donna, Amore, spiriti) su di uno sfondo metafisicamente nudo, in un processo che va da senso a ragione, da desiderio a contemplazione, da bellezza come colpo psicologico e sentimentale a bellezza come conoscenza e verità. Guido è il poeta di questo processo; anzi, per meglio dire, è il poeta della tensione spirituale per cui esso è vivo e dinamico, eternamente problematico per il diaframma della ragione; *ond'egli non narra, ma rappresenta; non muove il dramma, ma sembra solo contemplarlo, dolento, entro e intorno a sé*." My emphasis.

[117] Quotations from Dante, *Epistole*, ed. C. Villa, in *Opere*, dir. M. Santagata, 2 vols. (Milan: Mondadori, 2011-), vol. 2, pp. 1440-43, hereafter simply *Ep*., with indication of paragraph. My translations. The exchange has been studied from many different perspective, but see at least: Kenelm Forster, "Dante and Eros." *The Downside Review* 84 (1966), pp. 262-79; Elisabetta Graziosi, "Dante a Cino: sul cuore di un giurista." *Letture classensi* 26 (1997), pp. 55-91; Leyla Livraghi, "Dante (e Cino) 1302-1306." *Tenzone* 13 (2012), pp. 55-98; Enrico Fenzi, "Intorno alla prima corrispondenza tra Cino e Dante: La canzone per la morte di Beatrice e i sonetti *Perch'io non truovo chi meco ragioni* e *Dante, i' non odo in qual albergo soni*," in *Cino da Pistoia nella storia della poesia italiana*, eds. R. Arqués Corominas, S. Tranfaglia (Florence: Cesati, 2016), pp. 75-9.

probably identified with the same "Cinus Pistoriensis" mentioned already in *De vulgari eloquentia*, the poet and jurist Cino Sinibuldi da Pistoia.[118] The identification with the same Cino, friend to Dante in exile, is also based on the poetical exchange in sonnets that is referred to at the beginning of the letter. Dante mentions that the question posed [*consuluisti*] by the addressee, "quod quamvis ex ore tuo iustius prodire debuerat, nichilominus me illius auctorem facere voluisti, ut in declaratione rei nimium dubitate titulum mei nominis ampliares" [that although more justly should have come from your mouth, nevertheless you wanted to make me the author of it, so that my name might increase in the exposition of a much dubious matter; *Ep*. III 1]. Dante's familiarity and affection with this man from Pistoia exudes from the lines of the letter, but it is not limited to the solution of a philosophical question. The reference to a "sermo Calliopeus inferius" [a discourse in the name of Calliope, that is here below] makes explicit how the conversation is not only in epistolary exchange, but is addressed in poetry as well. Since Enrico Bindi's work,[119] the web of relations has connected this epistle with both the initial *consilium* of the Pistoiese, the sonnet *Dante, quando per caso s'abbandona* [47a], and Dante's response, *Io sono stato con Amore insieme* [47b].[120] As noted by Barolini, the interconnections

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[118] See the entry "Cino Sinibuldi (Cino da Pistoia)," authored by Stefano Carrai and Paola Maffei, in *Dizionario biografico degli italiani* (Roma: Istituto dell'Enciclopedia Italiana, 1960-), vol. 92 (2018), pp. 791-96; Paola Maffei, "Cino Sinibuldi da Pistoia," in *Dizionario biografico dei giuristi italiani*, dir. I. Birocchi et alii (Bologna: il Mulino, 2013), pp. 543-46. After having married the white guelf Margherita di Lanfranco degli Ughi in a precarious reconciliation between factions, the black guelf Cino was banned from the city of Pistoia in 1303, and will be exiled until April 1306. Therefore, the exchange with Dante has to be dated to the years 1303-04.

[119] Enrico Bindi, "D'una nova edizione delle Rime di M. Cino da Pistoia, ridotte a miglior lezione." *Ricordi filologici e letterari*, ed. P. Fanfani, 18 (1848), pp. 276-81.

[120] Quotations are from Dante, *Rime*, ed. C. Giunta, in *Opere* cit., pp. 583-93. My translations.

between epistle and sonnets shows how Dante is still wrestling with the question on the nature of love in the early years of the 14th century, thus wavering between a sensitive and deterministic approach and the final resolutions of the *Commedia*.[121]

Cino's question to Dante is far from being a simple matter. In his poetic address, Cino raises a point that is not of easy solution, and that is uncertainly expounded in the course of the lines. While the syntactical and lexical choices of the sonnet might well leave some problems unresolved, the main question posed by the Pistoiese is actually a statement, so that he affirms ["i' dico," I say, v. 5] "that the deserted soul [...] can indeed direct its interest to another person" ["che l'alma sola... / si può ben trasformar d'altra persona," vv. 7-8]. The use of the verb *trasformarsi* does stress a point later addressed by Dante in his epistolary and poetic response. Cino does not simply ask of a movement from an object to the other (thus simply underlining the spatial meaning of *trans*-), but if indeed the active form (-*formare*) of the beloved object, impressed in the sensorial memory of the subject, can switch from one to the other. Cino thus states his position in an affirmation, which is moderated by the open request in the last verse to demonstrate the sanity of his judgment ["vorre' sapere se 'l mi' creder è manco," v. 14]. The argument of the sonnet – an ethical question about human relationships and emotions – is therefore nurtured by a physical and philosophical point about the strength of actuality (*form*). Cino is asking if something that he is experiencing in real life can have a natural explanation in terms of influence of forms over matter (or vice versa), thus showing his own incertitude over a subject that has not only moral implications, but most importantly physical ones. The last line of the sonnet expresses Cino's doubts with regards to his own belief, i.e. if it is *manco* [lacking] of logical and philosophical bases that require re-evaluation.

[121] See Barolini, "Dante and Cavalcanti" cit.

In his epistle, Dante gets what troubles Cino, and it is indeed a problem of correct philosophical reasoning. The conundrum raised by the used of the word *trasformarsi* is quoted verbatim by Dante in the main question of the letter, when he echoes "utrum de passione in passionem possit anima *transformari*" [whether the soul can move from a passion to another passion; *Ep*. III 1, my emphasis].[122] In his response, Dante is very well aware of how Cino's statement puts into perspective the active participation of the subject into the emotional and ethical movements of the soul. Dante's switch from transformation "d'altra persona" [from a person to another, v. 8], to whether the soul can move "de passione in passionem" [from passion to another passion] is not only an issue of natural exchange, but also a question posed in terms of material and actual influences. Cino puts at the center the object of the passion, while Dante focuses his response on the effects of this passion on the movements of the subject. In Dante's view, the explanation of Cino's doubts puts into question the status of the other *persona* involved, and this is the reason why the first philosophical distinction clarifies that "de passione in passionem dico secundum eandem potentiam et obiecta diversa *numero sed non specie*" [I say from a passion to another according to the same force and different objects, *in number but not in species*; Ibid., my emphasis]. The first point is the essential determination of the individual, whose objects can be the same in force, but diverse in nature. This is a problem that is pertinent only in the real world of people and contingent elements, all of whose forms (the same forms that Cino questioned in his address) are distinguished and distinguishable by their principles of individuation in matter. As humans, we are all exposed to the effect of individual human

[122] This problem has been discussed lately in various occasions by Teodolinda Barolini; see at least, Teodolinda Barolini, "Dante and Cavalcanti" cit.; Ead., "Errancy: A History of Lo ferm voler." Forthcoming, *Oxford Handbook to Dante*, and "Voi che 'ntendendo il terzo ciel movete: Conflict, Compulsion, Consent, Conversion." Forthcoming, *Festschrift for H. Wayne Storey*.

exchanges, while all being part of the same species. Dante is asking whether this diversity implies and produces different responses in the subject experiencing the variety of the many, or whether the passion of love, in being connected to the singular existence of one individual, cannot be reproduced in the multitude of human interactions.[123]

This first determination is necessarily connected with the comparison between sensorial experience and love passion. Both are powers of the sensitive soul,[124] and therefore exposed to the same natural processes of sensorial experiences. As a power of the sensitive soul, sense-perception is the capacity and tendency to be impressed by the substance that is experienced, and as Dante puts it, this capacity does not corrupt after one single act ["post corruptionem unius actus non deperit;" Ibid.], but naturally moves from the influence of one experience to the other ["naturaliter reservatur in alium"]. As long as the organs of sense perception are able to perceive the external reality of the world ["manente organo"], the potency of sensation is not devoid of the corruption of the form impressed in the senses, but maintains the same potentiality until another form impresses its mark over the sensorial organ.[125] As we have seen in Cavalcanti, in describing the physiology of love as connected to the natural working of passivity and matter,

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[123] One might even argue that the problem of individuation of the causes of difference is a topic that will not abandon Dante up until the Heaven of the Moon in *Pd*. 2.

[124] *Ep*. III 3: "cum igitur potentia concupiscibilis, que sedes amoris est, sit potentia sensitiva" [for since the concupiscible power, which is the seat of love, is a sensitive power]. On the implications of love as a sensitive power in Dante, see Corrado Calenda, "Dante e la psicopatologia amorosa," in *Dante e la scienza*, eds. P. Boyde, V. Russo (Ravenna: Longo, 1995), pp. 225-32.

[125] Ibid.: "ergo potentie sensitive, manente organo, per corruptionem unius actus non deperunt, et naturaliter reservantur in alium" [therefore the sensitive power, in the preservation of the functions of the organs, does not extinguish with the corruption of the single act, and naturally is preserved for another one].

Dante also is expounding on the idea that the natural tendency of matter is to preserve the potency of impression throughout its life.

This first attempt to a "natural dimostramento" of the permanence of potency in the sensitive soul of human beings, and therefore, the natural tendency to experience the same passion/impression coming from different individual objects through the life of the subject, is the introduction, as it were, to the response in sonnet. Dante's "sermo Calliopeus inferius" is a logical corollary to the points raised in the letter, so that we see once again how the natural propositions of philosophy cannot be detached from the ethical underpinnings of moral education. By equating human passions to sensorial perceptions, Dante opens a troublesome window to the ethical understanding of love, because sense organs, in being passive elements of receptions, are not actively seeking or controlling their exposure to sensorial stimulation. Dante therefore addresses the problem by comparing those who think themselves able to resist love with the hope of a guiding reason to the absurd attempt to placate a storm with chiming bells:

> Chi ragione o virtù contra gli [scil. Amore] sprieme
> fa come que' che 'n la tempesta suona
> credendo far colà dove si tuona
> esser le guerre dee' vapori sceme.
>
> [Whoever forces reason or virtue against Love, is like those who strike the bells in the storms, with the belief of waning the battles of vapor there where thunders, vv. 5-8].

The simile reinforces the idea of a naturality of passion seen as a sensorial power that eschews the control of human reason, exactly in virtue of that material passivity that is essential to the nature of love. The influence of the matter cannot be avoided as one decisive element in the ethical problem of determinism, and Dante addresses the question in terms of love and reason as all the other instances in which corporeal balances were brought into communication with the cognitive and rational underpinnings of the human. That is also why the "libero albitrio" [free

will, v. 10] has always been entrapped by the forces of natural matter, for it is necessarily connected to the sensitive part of the human, upon which reason does not have more control that one who seeks to move the natural elements of the weather with sounds and strikes. The resulting affection of the mind implies that any human choice is powerless against the natural workings of sensation and passion ["consiglio invan vi si balestra," choice cannot go against it, v. 11], and the only reasonable movement is to follow ["seguitar," v. 14] what has already been preordained by the material composition of sensorial perception.

Between the epistle and the sonnet exchange, Cino and Dante reinforce the connection between ethical philosophy and material determinism by associating, as Cavalcanti before them, love with passivity and sensation, and by categorizing the movement of the senses as natural working against which it is pointless to go. As in the moral philosophy of Taddeo's *Etica volgarizzata*, or in the other instances in which more freedom is given to the decision of reason, a decisive "choice" towards unabashed faith in the control of rationality has to be taken in order to save the independence of reason against the determinism of the body. This is the path that Dante will follow up until the terraces of *Purgatorio*, when in conversation with Virgilio and Marco Lombardo, he will state the unwavering faith in the "innata virtù" that counsels the human mind (*Pg*. 18.62). But this is a trace that Dante will not forget even in the highest heavens of *Paradiso*,[126] discussing the natural inclinations of human talents born under the sign of Gemini or the predestination of the souls in the afterlife. In this way, he indicates the long-lasting influence of matter, and (some of the) irreconcilable ends of medicine and ethics.

[126] See for instance Enrico Fenzi, "Dante e il *Roman de la Rose*: alcune note sulla «candida rosa» dei beati e sulla questione del libero arbitrio." *Critica del testo* 19/1 (2016), pp. 205-51.

Conclusion

Over the course of my dissertation, I hope I was able to provide enough evidence on the interconnections between medical thought and vernacular culture in the 13th century. By studying the repercussions of physiological discussions in the poetry of the Sicilian school, or the localization of cognitive faculties in the poetry of the Tuscans, or the psycho-pathology of love in Bologna, or also the debates over bodily determinism and free will at the turn of the century, I argue that medicine has many different ramifications in Medieval cultures and that an attentive study of its primary sources cannot be overestimated. Medieval philosophy is far from being merely concentrated in the thought of Thomas Aquinas, and that is why I agree with John Marenbon's invitation to redirect our "Aquinocentrism" to less explored shores.[1] While having been a productive field of research, especially in the last century (I think of seminal works by Temkin, Ballester, Ottosson, Siraisi, Kaye, to name a few), history of medicine should regain a more prominent role in Italian studies as well, in being at the threshold between different anthropological fields. Although recent studies, such as those authored by Gentili, Tonelli, Ureni, Zavattero, have showed already how prominent medical discussions are among Italian literary authors, more dedicated studies are limited by the bibliographical resources currently available. Many texts and translations, often of primary importance for the Later Middle Ages, are still solely in manuscript form, or in early printed editions that are not easy to get.

For instance, over the course of my research, I had to access Medieval Latin translations of Galen's *De elementis* and *De naturalibus facultatibus* from manuscripts preserved at the

[1] See John Marenbon, "Why We Shouldn't Study Aquinas." Annual "Aquinas Lecture" given at Maynooth University (Maynooth, Ireland), in March 2017.

Biblioteca Apostolica Vaticana; Taddeo Alderotti's medical commentaries have been consulted in Giunti editions of the 16th century, and the same can be said for Avicenna's *Canon* in Latin. And, although it is one of the first instances of philosophy in Tuscan language, Taddeo's *volgarizzamento* is still awaiting a philological edition. Latin versions of the *Summa alexandrinorum* met a similar fate, and they have been consulted through interpretative transcriptions, often not devoid of errors due to manuscript transmission. This situation, while being stimulating for new scholarship, is nevertheless seriously impeded by the scarcity of resources and the exponential number of skills (philological, paleographical, linguistic, to name a few) that are required. I hope my work has been sufficient to at least point to the many paths available through the study of the interconnections between Medieval Italian literature and history of medicine.

In the first chapter (*On Fluid Memory*), through the analysis of the hylomorphic understanding of sensation as proposed by Aristotle in his biological work, I stressed the importance of the connections between material and psychological dimensions in sense-perception. The centrality given to the realm of sensation and intellection by the poets of the Sicilian school, and Giacomo da Lentini *in primis*, has revealed how an attentive reading of the Aristotelian text is generative of some of the most famous images used by the poets at court. Although generally ascribed to Arabic scientific influence, based on my research I argue that the intertextual correspondences show a use of the Aristotelian text from the Latin translations produced directly from the Greek. While enriching the commentary materials on the poets of the Sicilian school, which are often inscribed solely under the aegis of the Provencal and French

traditions,[2] my work has repercussions for the cultural environment of the Staufen court as well, by identifying some of the texts that might have been part of the immense manuscript collection of the emperors.

The second chapter (*Minding the Brain*) is the longest and investigates the largest corpus of materials. I explored Galen's physiological system with the intention to show where his medical works most differ from Aristotle's biology. The localization of the faculties of the soul in the body, and the consequent shake-up in the Aristotelian system of sense-perception and psychology enriches the discussion of anthropological systems in the 13th century. The lexical uses of *mente*, *anima*, and *cuore* show how aware the Italian poets were of the intellectual shifts that were happening around them; while not being professionally trained in the medical field tout court, they mirrored these debates in their poetry with new tropes and productive images. The rediscovery of new Galenic texts, and the assimilation of Galenic materials through Arabic commentators, is patent in the philosophical discussions on medical definitions as proposed by Taddeo Alderotti. The presence of Avicenna is therefore a central point in Taddeo's natural system, and a radical change from the rigid Aristotelian physics. Guido Guinizzelli, while living and breathing literally the same air as Taddeo, shows a peculiar interest for natural elements in his poetry. Far from being a mere receptor of modes and styles of the previous tradition, Guido's idiosyncrasies testify to an early engagement with the same Avicennian materials that will characterize Taddeo's career in the medical faculty of Bologna *Studium urbis*.

In the third chapter (*All Things Natural*), I wanted to pull the threads of both the Aristotelian and Galenic discussions of the previous two sections, by focusing on the ways in

[2] For instance, the editors of the latest editions of the Sicilians dedicate numerous pages to all the intertextual reprises of the troubadours, but they never cite once the *Aristoteles Latinus*.

which moral philosophy cannot eschew a profound engagement with medicine and biology. Not only did Aristotle's *Nicomachean Ethics* reframe a medical concept like that of just mean and equilibrium, but it also showed how the problems raised by a philosophy of the body over human tendencies and inclinations have implications in the field of morals as well. On the other hand, while not proposing an ethical system of his own in the *Quod animi mores*, Galen proposes an idea of responsibility and justice that does take into consideration the temperamental *physis* of human beings, thus pushing forward a question that Aristotle himself had left unanswered in his treatise.

This troublesome balance between medicine and ethics, between determinism and free will, between nature and culture, lurks in Taddeo Alderotti's translation of an epitome of the Aristotelian treatise. While contributing to the emerging intellectual communities of the city, Taddeo's translation is also testimony to the centrality given to the field of morals by the laypeople, and how the decisive interpretation of a physician is fundamental to understand it even better. Always shifting between a deterministic reading and the unwavering faith in the liberty of human reason, Guido Cavalcanti, Cino da Pistoia, and Dante Alighieri are all participating to these unsettling debates, by connecting the fields of ethics to that of medicine and theology. By reframing the conversation under the aegis of the dynamics between love and reason, the Italian poets of the last decades of the 13th century show a similar *forma mentis* as the one that I investigated through the work of Aristotle, Galen, and Taddeo, thus testifying to the long-lasting influence of this (unresolved) tension.

A parallel reading of pivotal texts in medical and philosophical thought with literary work that pushes forward an understanding of the human body and soul proved itself productive in the course of this investigation. While the focus was on the years that separate the so-called birth of

the Sicilian school from Dante's experience of exile in the first decade of the 14th century, the analysis draws connections in many different directions and points towards prospective new research topics that I am eager to pursue in the coming years.

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