

# ARNAU DE VILANOVA AND BERNARD DE GORDON: SIMILARITIES AND DIFFERENCES IN THE USE OF ARISTOTLE IN THE MEDICINE (1270-1320)

Sergi Grau Torras  
*Institut d'Estudis Medievals*  
sergigrautorras@gmail.com

In the Middle Ages there was an important movement in the transmission of ancient Greek culture, from Arabic or Greek manuscripts into Latin translations. In this field, the recovery of Aristotle was made by the translation of a large part of the Aristotelian corpus into Latin, making up a fragmented mosaic of translations, comments and interpretations. During the twelfth and thirteenth centuries, Aristotle therefore became an *auctoritas* and some of his works were established as the basis for university studies. The arts schools, where students were prepared so as to continue their higher education in the university, in fields such as law and medicine, had included much of the Aristotelian corpus in their curriculum.

The spread of Aristotle in the university of Paris is well known thanks to several studies, but this situation has been less explored in the environment of the university of Montpellier. Michael McVaugh has drawn attention to the use of the natural works of Aristotle in some comments on the medical curriculum in Montpellier, written by Magister Cardinalis and Gilbert of England in the mid-thirteenth century (McVaugh, 1974, pp. 259-284). Other studies have focused on the use of Aristotle and his ideas by Arnau de Vilanova and by Bernard de Gordon in their medical works, but the wider framework of the reception of Aristotle during the second half of the thirteenth century, in the specific field of medical studies, has not analysed in detail yet. This paper, then, is a first approach towards comparing the similarities and differences in the use of the Latin corpus of Aristotle in the medical works of Arnau de Vilanova and Bernard de Gordon, so as to establish some conclusions about the use of that corpus in the medical training at Montpellier.

In the thirteenth century, a student of arts had, speaking in general terms, two different ways to assimilate the works of Aristotle: on the one hand, the *Organon* or some logical introductory works, like the *Topics*, *Categories* and *Analytics*, which were classroom staples in liberal-arts training for the first decades

of the century, and on the other, the natural works including *De anima* and the *Metaphysics*. The assimilation of natural works was gradual, and in some cases met some opposition, especially in the university of Paris after the 1240s. This is important because the medical student was required to study the arts degree in some places of Europe. In Montpellier, the place where both Arnau de Vilanova and Bernard de Gordon studied and taught, the university syllabi of arts and medicine coexisted through self-regulation but there was certainly a relationship between both faculties; the arts degree students had a reduction in the years of medical studies and it is supposed that many medical students had achieved a degree in arts since 1240 (O'Boyle, 1998; McVaugh, 2011, pp. 189-211). In fact, there is not any documental evidence that Arnau and Bernard studied arts before their medical training at Montpellier. But they probably did, because both of them used the works of logic and were formed in the arts of *trivium* (logic, grammar and rhetoric). In their works there is a great knowledge of the disciplines of the arts, which is more evident in what concerns Aristotle; the works of logic they use are the ones that were studied in the faculties of arts.

There is another way in which some of the Aristotle's works were included in the studies of medicine. During the twelfth and thirteen centuries, a new form of medical education emerged in several European universities, which emphasized medical practice following the knowledge of Aristotelian natural philosophy (McVaugh, 1974, pp. 259-284; García Ballester, 1982 pp. 97-158; García Ballester, 1995, pp. 75-102). This new training was founded on the basis of the *Articella* or *Ars medicinae*, a collection of 5-6 medical treatises which was complemented with other lectures and commentaries aimed towards a clarification of the teachings. In this way, the "natural" works were also included in the training of the medical student.

When Arnau de Vilanova wrote his first medical treatise around 1270, most of the Aristotelian works were already known throughout Latin culture. Which works by Aristotle did he use? Basically, he used the great majority of Aristotle's works which had been translated into Latin during the Middle Ages. It is possible to distinguish one group of works linked to the subject of logic such as the *Categories*, the *Topics* and the *Posterior Analytics*, and on the other hand the works on natural philosophy such as the *Meteorology*, *On generation and corruption*, the *Physics*, *On the soul*, the *Metaphysics*, the works on animals and, finally, the treatises on natural history collected in the *Parva naturalia*, especially *On sleep*.

In addition, Arnau de Vilanova had some works of Aristotle in his possession. There appear two works by the philosopher in the posthumous inventory of his possessions: the *Ethics* (Chabàs, 1903, p. 200) and the *Metaphysica* (d'Alòs, 1923, p. 304; Carreras, 1935, p. 74). Arnau cites these two books on more than one occa-

sion. His library also included a “libellus super quartum metaurorum” which may refer to Aristotle’s *Meteorologica*, a book which he also quotes more than once.

Among all the works of Arnau de Vilanova, there are three that stand out because of the abundance of Aristotelian citations: the *Tractatus de intentione medicorum* (c. 1290), the *Commentum supra tractatum Galieni de malicia complexionis diverse* (c. 1290/5) and the *Tractatus de humido radicali* (c. 1295/1300) with more than 23 quotations from Aristotle, coming from works on different matters<sup>1</sup>. Arnau wrote these three works when he was teaching at Montpellier from 1290 to 1301, and these works were addressed to a specialized public (Paniagua, 1994; Salmón 2004). It is during this period that we find the most abundant use of Aristotle’s works in Arnau’s production. This was probably because the university environment gained him access to the books of Aristotle, especially considering that those books were indispensable in the study of the arts, philosophy and medicine. This is similar to what occurs in the case of Bernard de Gordon, to whom we now turn.

Bernard de Gordon (c. 1260-1318/20), who was teaching at Montpellier from 1283 to 1308, used a great variety of the Aristotle works, among which the most prominent are the works related to logic such as *Topics* and the works on natural philosophy and physics such as *On the soul*, the books on animals, the book *On colors* and *Ethics* (Demaitre, 1980, p. 24). Arnau de Vilanova also knew all of these works. Bernard de Gordon used Aristotle as an authority at least 40 times in 7 of his works (Demaitre, 1980, p. 105); among these, 2 have a great number of quotations, as in the *Lilium medicine* (1303) with 8 references to Aristotle, and the *Regimen sanitatis* with 19 references to Aristotle (especially the *Ethics*). In general, this is, more or less, the same quantity which we can trace in Arnau: at least 32 in the works published in critical editions, although these sum total of these quotations are dispersed into a larger quantity works than in the case of Bernard<sup>2</sup>. In addition, both authors also used some apocryphal books attributed to Aristotle, such as the *Secretum Secretorum* and the *Problemata*.

What can we work out from all this information? First of all, we must state that, in this field, Arnau de Vilanova and Bernard de Gordon are very close. They knew each other and both had works from each other in their possession, and yet, they very rarely make any mention of each other in their works (McVaugh,

<sup>1</sup> The three works are published in critical edition in the collection *Arnaldi de Villanova Opera Medica Omnia* (AVOMO), listed in references.

<sup>2</sup> Here I do not include the works not published in critical edition such as the *Speculum medicinae*, the *Commentum supra tractatum Galieni de morbo et accidenti* and the *Repetitio super Vita brevis*, where some quotations of Aristotle can be found. If we take into consideration the whole authentic corpus, the number of quotations is bigger.

1973, pp. 331-336). Not only did they both know the diverse works of Aristotle, but they were also familiar with some Aristotelian concepts of logic as they were presented in the arts of *trivium*, which indicates their previous studies in the field. The works of both physicians include a similar number of references to a variety of Aristotelian works, demonstrating their training in the branch of philosophy in medical studies.

On the other hand, Aristotle is not always used in the same way to support discussions. In the development of the Radical Humidity, Arnau uses more works of Aristotle to build this concept while Bernard uses fewer works (McVaugh, 1974, pp. 259-284). In addition, more than half of Bernard's quotations of Aristotle are related to ethical subjects and thus, the *Ethics* is cited at least fifteen times, while Arnau quoted it fewer times. This is a remarkable difference concerning the ethical domain. In the *Regimen sanitatis*, a moralizing treatise on "governance", Bernard uses a great number of references to *Ethics* (Demaitre, 1980, p. 105; Adamson, 2010, pp. 426-428), while Arnau uses Aristotle indirectly only in one case (Gil Sotres, 1996, pp. 506-508).

To sum up, the works of Aristotle that were used by Arnau de Vilanova are very similar to those used by Bernard de Gordon, in spite of the different ways in which they used them. Both physicians knew a great variety of works, such as the *Logics*, the works on natural philosophy and especially the books on animals. In fact, it is clear that the knowledge that Arnau and Bernard had of Aristotle was wider than the one presented in the university curriculum. On the other hand, Bernard usually quotes the specific chapter in some of his quotations of the Aristotelian works, while this was far from being usual with Arnau; when Arnau mentions Aristotle, he seldom writes the literal quote. This paraphrasing does not indicate that his interest was less centered on Aristotelian doctrine rather than on Aristotle's *dicta*. There are only a very few cases in which he transcribes the quotes literally. In some cases he seems to be closer to the Latin translation made by Boethius (in the case of the corpus of the *Logics*), but in other specific cases it is not clear. Arnau had in possession some Latin books by Aristotle, which means that he knew the Aristotelian doctrine directly from the Latin translation. As well as this, he could have also taken some references indirectly through Galen, Avicenna as well as other sources.

Arnau had received his training at Montpellier, perhaps before 1260, and at Montpellier that training had been built, since 1240, upon the presumption that a medical student would have received previous training in the liberal arts. Maybe, in the case of Arnau, his knowledge of Aristotle comes from his training in the liberal arts before 1260, or maybe from his independent studies in later years. In any case, Arnau's knowledge of Aristotle would be a possible reflection of the

Aristotelian writings to which Montpellier students were being exposed to in the 50s and 60s of the thirteenth century, and it is clear that the study of natural philosophy and logic was inextricably intertwined with the study of medicine at Montpellier.

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