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Research Paper

When foods become remedies in ancient Greece: The curious case of garlic and other substances

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ABSTRACT

Ethnopharmacological relevance: The debate on the food-drug continuum could benefit from a historical dimension. This study aims at showing this through one case: the food-drug continuum in Greece in the fifth- and fourth-century BCE. I suggest that at the time the boundary between food and drug – and that between dietetics and pharmacology – was rather blurred.

Materials and methods: I study definitions of 'food' and 'medicine' in texts from the fifth- and fourth-century BCE: the Hippocratic texts, the botanical treatises of Theophrastus and the pseudo-Aristotelian *Problems*. To illustrate these abstract definitions, I focus on two substances: garlic and silphium.

Results and discussion: The Hippocratics were writing in a context of increased professionalization and masculinization of medicine, a context in which dietetics became the most prestigious branch of medicine, praised above pharmacology and surgery. While medicine was becoming more specialised, professionalised and masculine, it avoided becoming too conspicuously so. The Hippocratic authors sometimes noted that medical discoveries are serendipitous and can be made by anyone, whether medically trained or not. By doing so, they allowed themselves to integrate common knowledge and practice into their writings.

Conclusion: In the context of the professionalization of ancient medicine, the Hippocratic authors started to address the difference between food and medicine. They saw, however, some advantage in acknowledging the continuum between food and medicine. Scholars should avoid drawing too strict a boundary between ancient dietetics and pharmacology and should instead adopt a multi-disciplinary approach to the therapeutics of the Hippocratic texts.

1. Introduction

In his *Memorabilia*, Xenophon (c. 430–354 BCE), one of the students of Socrates reports the following dialogue between the philosopher and one of his interlocutors, Euthydemus, on the topic of deception:

> 'Suppose then,' Socrates said, 'that a general, seeing that his army is in low spirits, tells them a lie and says that allies are approaching, and through that lie, checks the despondency among his soldiers. On which side shall we put this deception?'
>
> 'It seems to me,' I said, 'to be on the side of justice.'
>
> 'Suppose now that a man, when his son is in need of drugs (*pharmakeia*), but refuses to take his medicament (*pharmakon*), deceives him by giving that medicament (*pharmakon*) as if it were a food (*sition*), and through this lie restores him to health, where shall we put this deception?'
>
> 'It seems to me,' I said, 'that it also goes on the same side.' [Xenophon, *Memorabilia* 4.2.17; all translations from the Greek and Latin are my own]

Socrates here distinguishes between two categories: that of drug/medicament (*pharmakon*) and that of food (*sition*), indicating that one can easily be dissimulated as the other. The question of the continuum between food and medicine is one that is of great interest to ethnopharmacologists (Etkin and Ross, 1982, 1991; Johns, 1990; Etkin, 2008; Leonti, 2012; Valussi and Scirè, 2012). Here I wish to add a historical dimension to these ethnopharmacological works. In this paper, I attempt to understand how the medical authors active at the same time as Socrates and his students, the Hippocratic authors, conceived of the difference between food and drug. I argue that they deliberately avoided distinguishing too systematically between the two categories in order to account for some versatile substances. To illustrate this, I will use the examples of garlic, which today too poses classificatory problems, and

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silphium, a plant that is now extinct. My enquiry will allow me to touch on some epistemological issues relating to the perceived superiority of ancient dietetics over pharmacology.

2. Materials and methods

My primary source materials will be the collection of earliest medical texts written in Greek: the Hippocratic Corpus (Jouanna, 1999; see Nutton, 2013 for a general introduction to ancient medicine). This is a heterogeneous compilation of some sixty medical texts, written for the most part at the end of the fifth century BCE and in the fourth century BCE, although some texts are significantly later. The name and authority of Hippocrates, the father of medicine, was bestowed upon the compilation, but it is certain that Hippocrates himself could not have composed all the treatises of the collection. Indeed, there are numerous style and content discrepancies to be observed within the collection. For this reason, I will refer to 'Hippocratic authors' rather than to Hippocrates. In addition to the Hippocratic Corpus, I will also make reference to contemporary authors such as the comedian Aristophanes (c. 446 BCE–c. 386 BCE), the philosopher and botanist Theophrastus (c. 371–287 BCE) and Pseudo-Aristotle. My method is in the main historical – it consists in analysing in depth ancient texts – but it is informed by gender studies and anthropology. In particular, I will call upon the work of anthropologists who have worked on the question of the continuum between food and medicine. Nina Etkin and Paul Ross, two pioneers in that field, noted that one should use 'a multi-contextual framework for assessing the physiologic import of plant utilization, to help to move the field beyond the contriving of simple, abstracted catalogues of constituents and activities to the assessment of interdependent uses of plants by real populations in specific cultural contexts' (Etkin and Ross, 1982: 25). History, one could argue, has an important role to play in this area of research, because historical texts (in particular herbals) usually give a theoretical framework for the understanding of the difference between food and medicine. While ethnopharmacologists have turned their attention to historical herbals for bioprospecting (e.g. Riddle, 1987; Holland, 1994; Riddle, 2002; Buenz et al., 2004; Lardos et al., 2011) or to stress continuity between ancient and current practises (Pollio et al., 2008; Leonti et al., 2009; De Vos, 2010; Leonti et al., 2010; Lardos and Heinrich, 2013), there still is much work to be done on those theoretical frameworks. It is important that this aspect of ancient pharmacological systems not be 'lost in translation', as it were (on the links between ethnobotany and historical sciences, see Heinrich et al., 2006). Historians can also shed light on processes of pharmacological knowledge transmission in ancient cultures, in particular on the questions of the interplay between orality and literacy (Leonti, 2011; Totelin, 2009); between lay and professional medical practitioners; and between men and women in this transmission.

2.1. Theory

The theory I want to test here is that the boundary between 'food' and 'drug', and hence that between dietetics and pharmacology, was left deliberately blurred in the earliest medical texts written in Greek. I do not mean to say that the Greeks did not have a clear vocabulary to refer to 'foods' (*sitia*), nourishment (*trophē*), and drugs (*pharmaka*) – as we saw in the text of Xenophon, they did. In this respect they are different from the Hausa of Nigeria whose word *magani* covers both 'plants administered to cure fever' and 'foods used to remedy hunger' (Etkin and Ross, 1991: 25). While no Hippocratic author ever wrote 'let food be your medicine, let medicine be your food' (this saying is often repeated in scholarship: see e.g. Etkin, 2008: 2; Leonti, 2012: 1), they often referred to both drugs and foods in their descriptions of treatments, as in the following example:

> In this case [a black disease] it is necessary to purge with medicaments (*pharmaka*) [that purge] from below and from above, and after that to drink ass's milk, and use foods (*sitia*) that are as emollient and cold as possible: shore-fish, cartilaginous fish, beet, colocynth, and minced meat. [Hippocratic Corpus, *Diseases* 2.74, edition: Jouanna, 1983: 213–214].

As is the case here, in the Hippocratic Corpus, the word '*pharmakon*' usually refers to a purgative drug (laxative or emetic) and the word '*sition*' refers to solid items of food (Artelt, 1968; Goltz, 1974; Lonie, 1977). Normally Hippocratic physicians proscribed the use of solid foods until a disease had reached a 'crisis', a turning point. The Corpus contains two catalogues of foods: one in an appendix to *Regimen in Acute Diseases* (chapter 68; edition: Joly, 1972: 89–90), the other in the second book of *Regimen* II (chapters 39–56; edition: Jones, 1931: 306–343; on the catalogue see Wilkins, 2004). On the other hand, the Hippocratic Corpus does not contain catalogues of what would later be called 'simple drugs', catalogues of ingredients and their properties. In fact the Hippocratic Corpus does not have any treatise that is devoted entirely to pharmacology, although it does refer to *Pharmakitides*, recipe books that have now been lost. These appear to have contained both what we would classify as pharmacological recipes and dietetic prescriptions, including recommendations relating to *sitia* (Schöne, 1920; Monfort, 2002; Craik, 2006: 17; Totelin, 2009: 98–102). The Corpus also contains a large number of what we would term pharmacological recipes, most of which are to be found in the gynaecological texts (Stannard, 1961; Goltz, 1974; Scarborough, 1983; Hanson, 1991, 1992, 1998, 1999; King, 1995a, 1995b, 1998; Laskaris, 1999; Totelin, 2009).

Thus, the Hippocratic authors had a clear vocabulary to refer to foods and drugs. On the other hand, they avoided defining the difference between the two categories. The closest one comes to such a definition is this passage in the Hippocratic treatise *Places in Man* (which probably dates to the fifth century BCE):

> All things that cause change in the present state are drugs (*pharmaka*), and all substances that are rather strong cause change. It is possible, if you want, to bring about change by means of a drug (*pharmakon*), or, if you do not want [to use a drug], by means of food (*sition*). [Hippocratic Corpus, *Places in Man* 45, edition: Craik, 1998: 82].

'Food' is something that is unlike 'drug', and a drug is something that is rather strong and can therefore effect change. Compare this Hippocratic near-definition to the following systematic discussion, which is to be found in the Aristotelian *Problemata*, a large collection of problems presented in a question-and-answers format, and circulated under the name of Aristotle (Touwaide, 1996; Mayhew, 2013). The question under observation is 'why is it that not all purgative drugs are bitter in taste':

> Oil and honey and milk and other such nourishment (*trophē*) purge, but it depends not on their kind but on their quantity. For if they are to purge, it is only when, on account of quantity they are uncocted, that they do so. Substances are uncocted for two reasons: either because of quality or because of quantity. This is why none of the substances mentioned above are drugs (*pharmakon*). For they do not purge on account of their properties. Astringency, bitterness and foul smell are characteristics of drugs (*pharmaka*) because a drug (*pharmakon*) is the opposite of nourishment (*trophē*). For what is concocted by nature causes bodies to grow and is called nourishment (*trophē*). But

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