Raphaële Garrod, Cosmographical Novelties in French Renaissance Prose (1550 - 1630) Dialectic and Discovery

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SIMON DUMAS PRIMBAULT European University Institute, Florence

Since the reappraisal of the supposed Scientific Revolution by the historiography of knowledge, an expansive literature has been published on the making of facts in early modern natural philosophy. In particular, historians of knowledge and science have dwelled on the many technologies pertaining to the apparently paradoxical construction of facts, or invention of discoveries – technologies ranging from theories through to field work and experimental instruments. Although so-called "literary technologies" have not escaped this focus, they have been too often reduced to publication and diffusion strategies, considering text as a mere medium of communication. Yet the rhetoric and poetics of science have much to tell us about how language itself shapes the scholarly view of the natural world; in other words, how scientific objectivity proper is also constructed through the use of words and arguments.

By focusing on the "rhetorical and poetic fabric" of the written text (p.13), Raphaële Garrod's work intends to shed light on how dialectic as a literary technology helped early modern scholars in constructing facts and inventing discoveries. Based on thorough study of the argumentative structure of five early modern French publications on cosmology and cosmography, *Cosmographical Novelties in French Renaissance Prose* concentrates on how novelties understood as "epistemological disturbances" to the *doxa* (p.207) are dealt with from a dialectical and rhetorical point of view, so as to be granted "discursive existence" (p.3), censored, or tailored to fit in the expected framework.

My main interest in this book lies in the literary epistemology it unveils for early modern natural philosophy as well as the one it deploys in twenty-first-century historiography, and the link between both. After a linear critical summary of the content of the book, I will consider each of these epistemologies in turn.

The Discursive Existence of Novelties

After a brief word history of the term "novelty" and the *mise en intrigue* of the epistemic troubles it raises, Garrod states her main objective in simple terms: how are novelties invented – that is *at once* discovered *and* constructed – through the use of rhetorical *loci*? (p.3) To try to answer that question, she focuses on five books of

cosmology and cosmography published between 1575 and 1664. In these times of great epistemological shifts for cosmography with the Great Voyages and the humanist rediscovery of classics, as well as cosmology – through the observations and modelling of Copernicus, Kepler, and Galileo –, dialectic and rhetoric as disciplines and as intellectual tools were undergoing major changes. Indeed, at the turn of the 17th century, a "scholastic, logical tradition of dialectic" overlapped with a "humanist, rhetorical one" while the mid-century "rhetorical turn" would eventually put an end to "dialectic-as-logic" (pp.9-10), thus paving the way for a modern use of language as a supposedly simple and transparent, hence objective, medium.

The historiographical relevance of the five books is put forward on the basis of their intended audience – vernacular readers – and therefore of their diffusion and circulation, as well as of the wider philosophical project they undertake and epitomize (pp.30-34). Although the choice of these five sources is perfectly relevant, we could ask whether only printed published texts – every single one of these last three words is of utmost importance – were deemed worth studying. Perhaps a more variegated, albeit limited, selection of sources would have allowed the author to address more deeply the ontological issue that rhetoric and dialectic raise – I will return to this in more detail later.

The **first chapter** of this book is intended as a brief history of dialectic as a discipline and of its links with natural philosophy. Based on a selection of nine textbooks spanning from Aristotle through Boethius to Eustachius, this brief history highlights the ever-changing normative ideals of dialectic and rhetoric, their relation, and their use in argumentation. This chapter is a good introduction to dialectic – understood in Aristotelian terms as "the art of debating about probable issues" (p.38), as opposed to syllogistic – and more particularly to the *loci*, that is the argumentative structures used to construct a probable demonstration, such as "from similars", "from testimony", and "from description".

This chapter extends into no less than five appendices (pp.321-363) recapitulating every single *locus* and all the definitions and uses they had according to each of the nine textbooks – a precious toolbox for someone eager to engage in similar inquiries.

The strength of this first chapter is to get to the heart of the matter immediately: even though it is a brief aside on the sole normative aspects of dialectic and rhetoric as they were taught, it nonetheless makes prominent the important and too often neglected epistemological role dialectic and rhetoric play(ed) in natural philosophy.

Now, apart from this main thesis, to which I will return, Raphaële Garrod also addresses a number of secondary issues in each chapter. After the first and introductory chapter, the book is divided in two parts containing respectively two and three chapters. The first part of the book, comprising chapters two and three, is

devoted to cosmological novelties – cosmology being understood as the part of natural philosophy concerned with the study of the universe as a whole.

Chapter two, by comparing the uses of *loci* in Pierre de la Primaudaye's *Troisième tome de l'Académie françoise* (1590) and Etienne Binet's "Pour parler des cieux et de ses merveilles" in *Essay des merveilles de nature* (1621), aims at showing how arguments of similitude, authority, or definition turn natural philosophical knowledge of the universe into theological tools for the parallel interpretation of nature and scripture. Therefore, Garrod intends to nuance the "Harrison's hypothesis" according to which the Reformation's biblical literalism has had a huge influence on the development of science during the early modern period – the Protestant emphasis on the literal meaning of scriptures would have fostered a new hermeneutic highly profitable for science. Raphaële Garrod argues instead that French Huguenots were influenced by Hermetic or Neoplatonic doctrines that led to a redefinition of biblical literalism.

In **chapter three**, the author focuses on two sharp critiques of dialectic and authority: Montaigne's "Apologie de Raimond Sebond" in his *Essais* (written between 1572 and 1592) and Descartes' *Le Monde* (written between 1630 and 1633). Though both authors have the same target, they do not have the same objective. While Montaigne's criticism is fostered by his scepticism – there can be no unique truth for human knowledge nor can there be any consensus ending dialectical debates –, Descartes' aims at promoting his epistemology of clear and distinct ideas – no need for debate nor bookish authorities – as incommensurably opposed to scholasticism. Garrod's stance regarding that confrontation is that the counterpart of such a slating of dialectic can only be a "growing rhetorical and poetic use of *loci* as persuasive devices and as structures of cosmological fiction" (p.153): for Montaigne to equate philosophy with poetry and sophistry, for Descartes as an intellectual tool to support his renewed and demonstrative mechanical philosophy.

The second part of the book, composed of chapters four, five, and six, focuses on cosmographical novelties proper, cosmography being "the description of the earth within the greater system of the world" (p.212), the **fourth chapter** aiming to clarify cosmographical terms and disciplines through a quick review of the existing literature.

Chapters five and six are indeed attempting to clarify the fragmentation of cosmography and the birth of geography by studying François de Belleforest's *La Cosmographie universelle de tout le monde* (1575), a translation and rewriting of Sebastian Münster's *Cosmographica universalis* (1550) that here acts as an unacknowledged sixth historical source. In the short period that separates both publications, Garrod witnesses an important change in the use of the *locus* "from authority": while Münster uses it as a safeguard to protect the *doxa* by censoring any novelty, Belleforest systematically (re)assesses authorities in a critical manner. These "discursive transfers of authority" (p.4) are for Raphaële Garrod what permitted the "cosmographical

revolution" that replaced the elemental sphere of cosmology with a more geographical representation of our planet as a body made of earth and water. Furthermore, in the course of this process, Garrod identifies the birth of national geography as a discipline through Belleforest's use of the *locus* "from notation" to derive national borders from historical criteria.

A Literary Epistemology

Shedding light on the epistemic uses and criticisms of dialectic and rhetoric in the writing of cosmological and cosmographical essays in French Renaissance prose, Raphaële Garrod succeeds in unveiling a wide world of scholars for whom the natural philosophical discourse is not of pure necessity such as Descartes would have us believe with his clear and distinct ideas, Leibniz with his *characteristica universalis* or Newton with his *prisca sapientia*; scholars for whom knowledge is intrinsically debatable, for whom nature is in-between necessity and contingency – as Melanchthon himself states (p.77).

Be it for the sceptical reasons of Montaigne, for whom poetry and speculation amount to the same thing, or for epistemically grounded ones, the conscious and non-conscious uses these scholars made of dialectical *loci* speak in favour of an ontological reappraisal of the modal status of natural-philosophical knowledge during the early modern period. All the more so as, by the mid-17th century, a rhetorical turn was occurring that would sweep everything away and root out the long-standing myth of (the existence of a) language as a mere, hence clear and distinct, medium of communication.

Beyond epistemological issues, dialectic thus raises ontological ones and, indeed, for Ramus and Melanchthon (pp.73-82) as well as for Eustachio (p.93), "dialectic is partly grounded in ontology" (p.42) for, contrary to syllogistic which draws its demonstrative efficacy from the *form* of the propositions, dialectic does so from the *matter* of the terms implicated. Antique ontological issues that are nonetheless at the heart of contemporary – dialectical – debates in history and philosophy of science.

Focusing on this period and these disciplines, Raphaële Garrod accomplishes with verve her goal of going beyond the traditional polar opposites of intellectual history such as "bookish knowledge versus experience" or "dialectical versus analytical" (p.4), for it is precisely the crossing of these dichotomies that she investigates. Hence, she brilliantly – and dialectically – demonstrates how words and arguments are as many tools and instruments used in the making of natural philosophical novelties, in just the same way as telescopes, air-pumps, and field samples.

Addressing epistemological disturbances this way, Garrod also succeeds in bringing early modern science closer to the historiographical practice of debate and consensus through rhetoric and poetic (p.292sq) – a rapprochement worth making today while the contemporary historical discipline is claiming its scientificity.

Yet it seems at the very conclusion of her work that the author yields to the Cartesian perspective, arguing that the effectiveness of dialectic rested on the frailty of an Aristotelian ontology under attack – as if we could detach the ontological enterprise from the use of words, for there would be an object already there before its "mise en texte" (p.5), just waiting for its "integration" (p.318). This said, if ontology is indeed displaced during this period through the reorganisation of the scholarly landscape between natural philosophy, experimental philosophy, and mathematical physics, we do find such dialectic and rhetorical threads in the fabric of the myriad mechanical philosophies that are as many supposedly steady ontological grounds.

By considering only printed published texts, I think that the author has only been able to draw part of the picture regarding that specific issue. A quick look at the so-called method of invention – revealed by drafts and notes, for example – as opposed to the method of exposition that the printed published texts reveal, could allow us to go beyond the "mise en texte" and take into account the fact that there can be no thinking without textual operations, and that there is actually no strict dichotomy between invention and exposition, as if they were two separate and successive intellectual operations. Thus, discursive existence is not just a supplementary, hence dispensable, ontological *layer*. It is rather a mode of existence. Something silenced is not merely refused discursive existence – it is not "censored discovery" –, it is properly refused existence – it is "not discovery". Despite Descartes' clear and distinct ideas, ontology is intrinsically entwined with the use of language, it is always a matter of dialectic and rhetoric.

History as a Dialectic

Such a use of language is not necessarily conscious or intentional and that is where Raphaële Garrod's philosophy of history-as-a-dialectic is of utmost importance. Indeed, by looking at the argumentative structure of such sources and by acknowledging that she is "investigating neither authorial intentions nor conscious manipulations of precise sources" (p.64), Garrod bypasses the straightforward issue concerning what the authors wanted to do – even in terms of speech acts – and focuses rather on how they did what they actually did.

She therefore judiciously goes beyond the mere meaning of the text – in its etymological sense of "intending" or "having in mind" – to address its proper poetic and rhetorical fabric, which betrays not solely what the text means but most importantly what it does not mean. Garrod makes the text talk; she makes it say more than it would have wanted to say, more than it actually means.

Although it would have benefited from a short discussion on the use of the English language to write a book about French prose – a choice that might be profitable as well, for translation may also smooth linguistic bias (e.g. p.121 and pp.169-170) –, it is thanks to this extremely stimulating hermeneutics that Raphaële Garrod unravels the latent mechanisms at work in the natural philosophical thought of the early modern period: faint stirrings deep under the surface of a conscious writing that nonetheless are the cause of the waves and currents; somehow dormant thought processes that only such a historical reading may reveal.

Choosing this object and this perspective, Garrod is under no illusion that she is attempting the construction of a supposedly "scientific" fact – "it might not state a fact, but it brings forth a valid meaning" (p.64) – and this is worth emphasising, all the more so today while scientificity is dangerously appealing to the practice of history, even though "being scientific" is no longer a title of nobility.

Hence, the thinking and writing of this book are themselves rooted in rhetoric and dialectic as acknowledged by the author herself (p.64): taking chance into account, relying on probable reasoning, making use of *loci*, and most importantly opening a space for debate far beyond an illusion of historical objectivity.

As a concluding remark, the author underlines the "epistemic ambivalence" (p.318) generated by the use of dialectical invention, for there was no unique way to grant discursive existence to novelties, no straightforward path to the resolution of such epistemic disturbances. Hence the large number of variegated natural philosophical world-views competing in the early modern scholarly world; hence also the epistemic shift from the search for the ontological grounds of the natural world towards the construction of models on the basis of experiment *i.e.* empiricism (p.317).

Thus echoing issues raised by historical research, thus deconstructing the intertwining of an early modern literary epistemology and a contemporary history as a dialectic, Raphaële Garrod accomplishes the difficult task of recasting the issues raised both by the practice of science and the practice of history on common matters relating to modality and objectivity, reopening the – dialectical – debate about the rhetorical and poetic invention of the world by scholarly endeavours. As such, this book does indeed "bring forth a valid meaning" (p.64).