

Infinity and the Sublime

Karin Verelst

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Vrije Universiteit Brussel
Pleinlaan 2, B-1050 Brussels

kverelst@vub.ac.be

ABSTRACT

We are so used to think by ourselves that we almost forget how rare and strange this psychological feat actually is. The ability to retract ‘within’ oneself is a recent and culturally determined phenomenon which was hardly available throughout the major part of human history.[9] To think is to think aloud. Even in our own Antiquity to think and to speak did largely coincide [7]. If we look at the traditional definition of rhetoric as the *ars bene dicendi* [4] with this in mind, then the equally traditional viewpoint that moores rhetoric so firmly to the correct ways to think, i.e. the *ars inveniendi*, the method for discovering truths by which the mind “finds” new ideas, becomes something less of a surprise. Rhetoric implies much more than mere eloquence. Up to early modernity it was common to label *Rhetorica* treatises on eloquence, but also those on matters spiritual or metaphysical. Descartes devoted a book to *Regulae ad directionem ingenii* [2], rules for guiding the mind. Arnauld and Nicole, authors of the famous *Port Royal Logic*, call it *L’Art de Penser* [1], and, although they describe in Part I of their book a new method based on mathematics to deduce new ideas, they proceed in Part III to a critical discussion of the “lieux”, the traditional *loci* or common places that were in use to structure rhetorical memory. Newton, finally, starts Book III of the *Principles* by a set of *Regulae Philosophandi* [6]. Our present disdain for rhetoric is the exception, and one that becomes comprehensible only in the context of the history of rhetoric itself. In this contribution we will show how rhetorical conceptions feeding on metaphysical and even theological premisses continue to inform present-day mathematical thought. We will focus on the notion of the *sublime* [8], a concept central to early modern controversies on the origin of rhetorical creativity [3]. The sublime stands beyond the rule-governed *inventio*, as if it were a divine breath that infuses inspiration into the mind. Acceptance or rejection of the sublime in rhetoric rests on theological grounds, and cuts through the frontlines of the notorious “querelle des Anciens et Modernes”; it bears upon precise conceptions of the relation between language, existence and (literally) imagination. The Sublime paves the way to the acceptance or rejection of the notion of infinity. This intellectual connection is straightforward and can be shown to shape. e.g., explicit oppositions between Descartes and Pascal, but it remains operative well into the twentieth century, where it explains the different approaches developed to the actual infinite in the foundations of mathematics by the French rational - heir to Descartes and Port Royal - school (Poincaré, Lebesgue, Hadamard, Baire, Borel), and by the Moscow school of mathematics (Egorov, Luzin, Florenskii, Suslin), feeded by a strand of orthodox mysticism called the “Name-worshippers”, who shared a central tenet of the defenders of the Sublime, c.q., that , at least to a certain extend, ‘to name’ and ‘to exist’ coincide [5].

References

- [1] A. Arnauld et P. Nicole, *La Logique ou L’Art de Penser*, Flammarion, Paris, 1970, [1662].
- [2] Descartes, *Regulae ad directionem ingenii*, éd. Adam et Tannery, vol. X, p. 362 sq., Cerf, Paris, 1897-1913.
- [3] M. Fumaroli, “Le crépuscule de l’enthousiasme, in: *Héros et Orateurs*, Droz, Genève, 1996.
- [4] M. Fumaroli, *L’Age de L’Éloquence*, Droz, Genève, 2002 [1980].
- [5] L. Graham and J.-M. Kantor, *Name Worshippers. Russian religious mystics and French rationalists: Mathematics 1900-1930*, American Academy of Arts and Sciences, Bulletin, vol. LVIII, nr 3, pp. 12-18.
- [6] M. Mamiani, “The rhetoric of certainty: Newton’s method in science and in the interpretation of the Apocalypse”, in: M. Pera and W.R. Shea (eds.), *Persuading Science. The Art of Scientific Rhetoric*, Science History Publ., Canton Mass., 1991.
- [7] R.B. Onians, *The Origins of European Thought*, CUP, Cambridge, 1994 [1951].
- [8] Pseudo-Longinus, *Dyonisiū Longini de sublimi genere dicendi*, Apud Paulum Manutium, Aldi Filium, Venetiis, 1555 [Editio princeps].
- [9] B. Snell, *Die Entdeckung des Geistes. Studien zur entstehung des europäischen Denkens bei den Griechen*, Vandenhoeck & Ruprecht, Göttingen, 2000 [1946].