Introducing in China the Aristotelian Category of Quantity: From the Coimbra Commentary on the *Dialectics* (1606) to the Chinese *Mingli tan* (1636-1639)

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Abstract: Second Scholasticism greatly developed the medieval theory of continuous quantity as the Aristotelian notion for thematizing spatial extension, paving the way for the idea of space as extension in early modern natural philosophy. The article analyzes the section related to the category of continuous quantity in the Coimbra commentary on the *Dialectics* (1606), showing that it is indebted to the novel theory of Francisco Suárez on quantity as bestowing extension to a body in a particular sense, something which had been overlooked by previous research. The scholarly debate on quantity was brought to China, and here the Chinese translation is examined of the section on quantity in the fourth volume of the *Mingli Tan*, published in China in 1636-1639.

Keywords: Aristotle, continuous quantity, extension, early modern scholasticism, Sebastião do Couto, Pedro da Fonseca, Francisco Suárez, China.

Introduction

Among Aristotle's ten categories, *poson* (quantity) is of particular importance, being discussed in Chapter 6 of *Categories*, just after *ousia* (substance). As is known, ancient Greek commentators and scholastic writers understood Aristotle's *Categories* mostly as a work on logic[1]. Yet, a question remained about whether the categories were real beings, mental beings or

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1. See Pini 2008.

semantic beings, and consequently whether they should be studied by logicians alone, by metaphysicians alone, or by both[2]. In general[3], sixteenth and seventeenth-century schoolmen subscribed to the complex conception of the categories as both mental and realist concepts that had been developed especially in the Thomistic tradition. Hence, they understood categories as «coordinations» or «arrangements» of genera and species, and they thought of categorical relations as real relations[4].

Similarly, in the case of quantity, and more specifically continuous quantity[5], early modern scholastics welcomed the conceptual heritage of Thomism, which allowed the transformation of the Aristotelian concept of continuous quantity into the modern notion of extension[6]. Thomistic philosophy developed over the centuries what has been called (in opposition to Ockham's thesis of the identity of quantity and material substance) 'quantity realism'[7]. Thomists understood the category of quantity as a *res* distinct from the material substance, the study of which pertained both to logicians and metaphysicians. Hence, at the same time, late scholastics also agreed with the doctrine of Duns Scotus (c. 1265-1308), who was a quantity realist in turn and associated continuous quantity to spatial extension in the place, as «a real accident that serves to make a material substance extended»[8]. As we shall see, such a realistic conception of continuous quantity as extension became

2. See Hall 2008; Conti 2008a and 2008b.

3. The Nominalists tended to see the categories as purely verbal utterances, without real existence apart from the mind. But they were compelled by the implications of such a conception for the Eucharist to admit that accidents in the category of quantity could count as real accidents. See Bakker 2001.

4. See for instance, about Fonseca, Martins 1991, pp. 235-ff. On Suárez see, instead, Gracia and Novotny 2011, pp. 30-38, and also Penner 2013 and Menn 1997.

5. As is known, in *Cat.* 4b 20-5a 35, Aristotle distinguishes quantity into *discrete* (διωρισμένον) and *continuous* (συνέχες) quantity. Continuous quantities «are composed of parts which have a position in relation to one another»; they are «lines, surfaces, bodies», thus extended beings, «and also, besides these, time and place». Therefore, continuous quantities are those in which the parts are (spatially or chronologically) *contiguous* components of a divisible continuity. Things «are called continuous when the touching limits of each become one and the same and are […] contained in each other», so that continuous things are mutually consecutive and «naturally in virtue of their mutual contact form a unity» (*Physics*, V, 3, 227a 10-15, trans. from Barnes edition). According to a widespread reading, continuous quantities can be further divided into: a) permanent continuous quantities, namely lines, surfaces, bodies; b) successive continuous quantities, namely quantities in motion like time. Instead, discrete quantities are those which «are not composed of parts with a position», whose contiguity is impossible. Discrete quantities are for instance «number and language», whose fundamental unities are mutually independent and keep their own individuality when put in aggregations or wholes.

6. See Pasnau 2011, pp. 279-349; Anfray 2020; Schmaltz 2019, 2020a and 2020b; Guidi 2020, pp. 231-260.

7. See Schmaltz 2020a, pp. 170-176.

8. Pasnau 2011, p. 280.

not only because of the foreign-sounding language, but also because the Chinese reader has little background understanding that could help him appreciate the relevance of the questions being addressed. Unlike the *Jihe yuanben* which exerts until today a considerable influence in China, the *Mingli tan* and Aristotelian logic in general have failed to attract the interest of the Chinese[66]. But despite its lack of reception in China, the *Mingli tan* still deserves scholarly attention. As we have shown here, it introduced a very sophisticated notion of quantity, not only based on Aristotle's *Categories*, but also incorporating important philosophical ideas from Thomism, Scotism, and Nominalism, including the most recent developments at that time on quantity as extension, by the leading scholastic philosopher, Francisco Suárez.

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66. For a comparison about the reception of the works, see Yuan 2014.

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