

Classifiers.

Doing Philosophy with Chinese Grammar

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The approaches to the study of classifiers in the Chinese language developed within traditional and cognitive grammar imply a dualistic framework for the theory of knowledge. This article shows that the theses derived from such a framework within Chinese linguistics, particularly the thesis of the sharp distinction between unit and measure classifiers and that of a certain kind of reduction of sortals to mass terms, are empirically unreliable and poorly explicative. The paper outlines a non-dualistic philosophical framework helpful to address issues in which grammatical and philosophical aspects appear inextricably intertwined, as in the case of classifiers.

71

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I. Introduction

Interest in reading the great classics of Eastern spirituality has led some philosophers to study the Chinese language. On this path, reading the canonical texts remains a long-term goal. However, one has the strong impression that the Chinese language itself reveals the secrets of Eastern spirituality. In this respect, the Chinese language has been seen to encapsulate meaning in the complex graphic, semantic, and phonetic structure of its characters (Hansen 1983, 47-9).

Aware that this impression cannot be scientifically corroborated yet imposes itself with compelling force, I have decided to transform it into a general working hypothesis, which I will be exploring in the present article. My hypothesis is that the grammar of a language reflects general aspects of the philosophy that has been expressed through it over the centuries [1].

As far as the Chinese language is concerned, there are indeed various aspects in which grammatical and philosophical peculiarities can be discussed together. The system of classifiers which will be the focus of the present article, resultative structures (Tai 2003), and the alleged absence of counterfactual markers (Jiang 2017, 35-6) are just a few examples.

The philosophical interest in the phenomenon of classifiers can be seen in the fact that philosophy and linguistics have influenced each other in this regard. For instance, in his 1968 essay on ontological relativity Quine mentioned the case of Japanese classifiers as a concrete example of the indeterminacy of translation (Quine 1969, ch. 2). Lakoff later used the Japanese classifier *hon* to illustrate his idea of a radial structure (Lakoff 1987, ch. 6). Finally, linguists have repeatedly appealed to philosophy.

Her & Hsieh (2010, 452 ff) made use of the Kantian distinction between the analytic and the synthetic to support their theses on the classifier system [2]. In order to criticise a certain use of the mass noun hypothesis to explain the white horse paradox (Hansen 1983, ch. 5), Harbsmeier (1991) analysed the phenomena of quantification and classification in relation to some grammatical distinctions in classical Chinese. Tillemans (2016) compared the case of Chinese classifiers with cases of alleged indeterminacy and inscrutability of reference in Tibetan Buddhist literature.

Against the backdrop of these reciprocal correspondences, the present article specifically suggests that the grammatical structure of classifiers may reflect that of non-dual thought. [3] Non-dualism is one of the guiding threads in the reflection on classical texts in Chinese philosophy [4]

(Allen 2015; Jiang & Zhou 2019; Adler 2022). From our perspective, it takes the form of both ontological and epistemological issues. The term “non-dualism” is used to denote a theoretical stance halfway between dualism and monism. Taking the mind/body problem as an example (Allen 2015, 47), monism and dualism include

[1] Despite methodological differences, from the point of view of content my general hypothesis is in line with Hansen 1983 (30, 56-7, passim).

[2] They also use the Aristotelian essential/accidental property distinction. In this article I focus primarily on the analytic/synthetic one as it is specifically suited to a discussion centred on linguistic rather than ontological issues.

[3] This hypothesis seems to embrace the neo-Orientalist frame opposed by Slingerland 2019. Actually, neo-Orientalism rests on two dogmas, one concerning the non-dualism of Chinese thought and the other concerning the dualism of Western

[4] To exemplify this philosophical current, the following *Daodejing* passage is generally quoted: “Everyone in the world knows that when the beautiful strives to be beautiful, it is repulsive. Everyone knows that when the good strives to be good, it is no good. And so, to have and to lack generate each other. Difficult and easy give form to each other. Long and short off-set each other. High and low incline into each other. Note and

the mind/body distinction among their assumptions and propose a theory concerning the relationship between the two. Unlike monism and dualism, non-dualism does not deny the mind/body distinction, but questions its primacy (Adler 2022, 38-9).

In suggesting that the grammatical structure of classifiers may mirror that of non-dual thinking, the article will argue that the analytic/synthetic distinction in the classifier system produces empirically untenable theses and that a certain way of reducing nouns regarded as sortals to mass terms is weak from an explicative point of view (Her & Hsieh 2010; Hansen 1983). The general conclusion will be that the long-standing distinction between unit classifiers, deemed to apply to sortals, and measure classifiers, deemed to apply to mass terms, is a distinction of degree rather than kind. Ultimately, I will contend that in Chinese linguistics dealing with the problem of classifiers, a theory-of-knowledge framework based on a synthetic-biological philosophical paradigm could fruitfully replace one based on a strictly epistemological paradigm (Lanfredini & Del Sordo forthcoming).

To achieve these results, the article will be subdivided as follows. Section 2 will clarify the methodological approach of this work. Sections 3 and 4 will introduce the phenomenon of classifiers and the distinction between unit classifiers and measure classifiers, highlighting their complexity and heterogeneity. The main theoretical positions concerning the appropriateness or inappropriateness of the distinction between unit classifiers and measure classifiers will be set out. Sections 5 and 6 will argue against the previously outlined positions by adducing some empirical and philosophical-scientific objections. Section 7 will illustrate why it is preferable to maintain a distinction of degree rather than kind between unit classifiers and measure classifiers, as well as between sortals and mass terms. As a corollary, it will suggest that it is worth re-evaluating the theory-of-knowledge framework assumed by Chinese linguistics in the study of both classification systems and philosophical problems emerging within the Chinese tradition.

II. Methodology

Given the wide range of traditions that intersect in this article, before addressing the philosophical and grammatical issue of classifiers, it may be useful to offer some methodological clarifications.

In relation to the peculiar intertwining of philosophy and Sinology, it is possible to distinguish at least two methodological attitudes: the “think Chinese” approach and the “interpretive methodology” (Hansen 1983, ch. 1). I would argue that neither yields the desired outcomes, as both fall short of the kind of dialogical commitment essential for gaining an understanding of the matter.

Scholars who adopt the “think Chinese” approach tend to conceive of Chinese thought as totally different from their own and set out to understand things via imitation. The result is a kind of masquerade that is hardly reliable from a scientific point of view [5]. In the case of the

rhythm harmonize with each other. Before and after follow each other” (*Daodejing*, ch. 2). I am quoting the text from Ivanohe & Van Norden (2005).

thought. In this paper, although my hypothesis assumes the former point, the way it is

developed does not at all lend support to the latter point, insofar as it instead shows the holistic tendencies and non-dual aspects to be found in Western thought as well.

so-called “interpretive methodology” approach, which is usually adopted to address the problem of classifiers, we instead find a tendency to make liberal use of Western philosophical concepts to understand Chinese philosophical texts. There is a tendency here to project certain philosophical categories onto currents of Chinese thought, by identifying traces of realism, idealism, or scepticism in Taoism, Confucianism, and so on. Although such categories may be useful to orient our reading, their uncritical use can deprive us of certain philosophical nuances.

In my view, it is unsound for Sinologists to stress the non-dual and non-logocentric character of Chinese epistemological reflections while at the same time adopting an approach to texts based on dualistic or logocentric theory-of-knowledge frameworks, thereby formulating theses steeped in idealism, realism, etc. Instead, I deem it more fruitful to draw upon Western epistemological thought – as embodied by pragmatism, neutral monism, phenomenology, and early logical empiricism, for instance – which has dealt with the conversion of dualistic aspects and dichotomic tendencies into ecological or neutral points of view [6].

Rather than embracing the interpretive methodology, I will attempt to move towards an ecological methodology [7], by searching for the presence of forms of decentralisation with respect to classical hypostatizations.

In this respect, I will depart from the approaches to classifiers (Jiang 2017, 6) proposed by traditional grammar (Her & Hsieh 2010) and cognitive grammar (Hansen 1983). Both these approaches will be shown to support the epistemic frameworks of the interpretive methodology. But before delving into the topic, let us see how the phenomenon of classifiers is grammatically defined.

III. Classifiers: a Complex and Heterogeneous Phenomenon

From a linguistic perspective, classifiers seem like a clearly defining phenomenon. Although controversial cases can be found [8], it is possible to distinguish (Jiang 2017) between classifier languages (such as Chinese, Japanese, and Thai) and non-classifier languages (English, Italian, and Indo-European languages in general).

In modern Chinese, classifiers are essential linguistic elements to formulate grammatically correct sentences when we are dealing with syntagms consisting of “numeral - noun” or “demonstrative - noun” [9]. In Italian or English, we are accustomed to seamlessly juxtapose numerals or demonstratives with nouns, according to the following structure:

(I) Dem./Num. - Noun

Indeed, we can refer to countable nouns such as “three books”, “this poem”, “this number”, and “that star” without having to insert grammatical elements between the numerals or demonstratives and the nouns. By

[5] See again Hansen (1983, ch.1). This aspect should be viewed within the framework of the debate on what Orientalism is (see Said 1979) and on the past, present, and future of the Eurocentric view of cultural otherness (Halbfass 1988). In order to maintain a specific focus, I cannot explicitly delve into these major debates here.

[7] Cf. the terminology adopted by Allen (2015, chs. 1 and 5).

[6] Concerning the issue of neutrality in these traditions, see Parrini (2022b) and Del Sordo & Mormann (2022). It is precisely with regard to this point that the present paper cannot be accused of neo-Orientalism (see footnote [4]). While Slingerland (2019) dismisses neo-Orientalism by criticising the holistic reading of texts from the Chinese tradition, the present paper does so by criticising the unqualifiedly dualistic reading of Western thought.

[8] See e.g. Toyota (2009).

[9] In this respect, Classical Chinese (from the Spring and Autumn period, 770-476 BC, to the Han dynasty, 206 BC - AD 220) presents certain nuances (Harbsmaier 1991; Jin 2019, 3-7). Judging from historical findings, the use of classifiers would not appear to have become widespread until the Wei, Jin, and Northern and Southern dynasties (AD 300-500). However, the use of classifiers attested at that time suggests that the system,

contrast, to refer to them in modern Chinese, we need to use the following structure, some examples of which are provided in [TAB.1]:

(II) Dem./Num. – Cl. – Noun

while not obligatory in the written language, underwent various stages of development in spoken Chinese (see Jiang 2017, 2).

	numeral or demonstrative	classifier	noun
three books	三 (sān) three	本 (běn) -	书 (shū) books
this poem	这 (zhè) this	首 (shǒu) -	诗 (shī) poem
this number	这 (zhè) this	个 (gè) -	数 (shù) number
that star	那 (nà) that	颗 (kē) -	星星 (xīngxīng) star

[TAB.1] Examples of the use of structure (II).

When dealing with so-called uncountable nouns, often used to refer to substances or materials, languages with classifiers and ones without tend to resort to structure (II). We can see some examples in [TAB.2].

numeral or demonstrative	classifier	noun
两 (liǎng) two	杯 (bēi) glasses of	水 (shuǐ) water
那 (nà) that	件 (jiàn) item of	衣服 (yīfu) clothing
三 (sān) three	瓶 (píng) bottles of	啤酒 (pǐjiǔ) beer

[TAB.2] Examples of the use of structure (II) in the presence of nouns regarded as uncountable.

The apparent simplicity of the examples and grammatical structure conceals a heterogeneous and complex phenomenon. To get an idea of its complexity, we only need to consider the fact that attempts to list Chinese classifiers have yielded results varying between 150 and 400 lexical units (Her & Hisieh 2010, 528).

The heterogeneity of the phenomenon emerges in the variety of taxonomies to be found. Jin (2019, 9-14), for instance, divides classifiers into the following types: individual, partitive, temporal, measure, form, group, duration, kind, and frequency. Shen (2020, 769-8), in turn, tends to subdivide classifiers into the macro-categories of content and dynamic and to conceive of the former types as subcategories.

When it comes to the debates surrounding the taxonomy of classifiers, the distinction between unit classifiers 单位词 (*danwèi cí* “unit words”) and measure classifiers 量词 量词 (*liàng cí* “measure words”) carries specific weight both philosophically (Her & Hisieh 2010) and linguistically, as it has influenced the discussion concerning the very name to be assigned to this grammatical category (Jiang 2017, ch. 2).

The cases in [TAB. 3], as well as those in [TAB. 1], can be considered examples of unit classifiers. By contrast, those reported in [TAB. 4], as well as in [TAB. 2], can be considered examples of measure classifiers.

numeral or demonstrative	classifier	noun
两 (liǎng)	支 (zhī)	体温计 (tǐ wēn jì)
two		thermometers
那 (nà)	把 (bǎ)	伞 (sǎn)
this	-	umbrella

[TAB. 3] Examples of unit classifiers.

numeral or demonstrative	classifier	noun
一 (yī)	块 (kuài)	巧克力 (qiǎokèlì)
a	piece of	chocolate
三 (sān)	箱 (xiāng)	苹果 (píngguǒ)
three	boxes of	apples
这 (zhè)	桌子 (zhuōzi)	书 (shū)
this	table of	books

[TAB. 4] Examples of measure classifiers.

Languages with classifiers, and ones without, evidently converge on the presence of unit classifiers. It therefore makes sense to consider the phenomenon of unit classifiers as more defining. In the following section, I will focus on the theoretical ways in which we can distinguish between unit and measure classifiers.

IV. Unit Classifiers and Measure Classifiers

The debate on the difference between unit and measure classifiers tends to hinge on the existence of criteria of syntactic and semantic discernibility between the two categories (see Her & Hisieh 2010).

Syntactically, the question of the discernibility of the two types of classifiers seems to revolve around the production and interpretation of various syntactic-formal tests such as the insertion of 的 (*de*), adjectival modification, and substitution with a generic classifier 个 (*gè*). Since the philosophical debate is mainly framed from a semantic perspective, I will not go into these tests.

The issue of semantic discernibility concerns two fundamental assumptions.

First, the nouns of measure classifiers are seen as mass terms, i.e. terms indicating materials or substances, whereas those of unit classifiers are regarded as sortals, i.e. nouns indicating individual objects or things (cf. Steen 2022). As regards the definition of sortals and mass terms, I shall resort to a primarily intuitive definition. I said “seen as” sortals or mass terms because I am adopting a consciously deflationist point of view, given the difficulty of finding an unambiguous criterion for establishing the distinction in a substantive way. In this regard, various semantic criteria have been proposed, whose completeness is often difficult to assess and whose explicative value ultimately depends on syntactic elements (e.g. countability/uncountability), often giving rise to discrepancies (cf. Grandy & Freund 2023, 8-9) [10].

Secondly, classifiers are assumed to attribute properties, or forms, to the nouns to which they apply. More specifically, they are seen to attribute properties that are

[10] The second and third cases reported in [Tab.4] may be taken as examples of these discrepancies, whereby the semantic function of the mass term does not coincide with the syntax of the uncountable noun.

permanent or essential in the case of unit classifiers, and ones that are contingent or accidental in the case of measure classifiers.

To provide just a couple of examples, let us consider the classifier 支 (*zhī*) in [TAB. 3]. It is used for elongated and inflexible objects, such as pencils or thermometers. In this sense, the classifier would signal some essential properties of the objects in question. A liquid thermometer or a pencil as broad and flat as a ray would hardly fulfil its function as a thermometer or pencil. The classifiers 箱 (*xiāng*) and 块 (*kuài*) instead attribute transient properties to apples and chocolate, i.e. the property of being grouped into boxes, i.e. 箱 (*xiāng*)-profiles, or shapes, or divided into pieces, i.e. 块 (*kuài*)-profiles, or shapes [11]. Indeed, apples and chocolate would remain apples and chocolate even in the uncommon event that the former were divided into cups and the latter into slices.

[11] In using the term “profile”, I am generally drawing inspiration from Sattig (2015).

On the basis of these assumptions, two theoretical positions have been adopted with regard to unit classifiers (Her & Hisieh 2010, 542ff). According to the first position (A), which may be said to uphold the *analyticity* of unit classifiers, sortals and unit classifiers, on the one hand, and mass terms and measure classifiers, on the other, constitute semantically distinct categorical syntagms. Unit classifiers would attribute permanent properties to nouns, while measure classifiers would attribute accidental properties to them. From a propositional point of view, unit classifiers are said to underlie analytic, semantically non-informative propositions, whereas measure classifiers are said to imply synthetic, semantically informative propositions.

77

According to the second position (S), which may be said to uphold the *syntheticity* of unit classifiers, sortals and unit classifiers, on the one hand, and mass terms and measure classifiers, on the other, do not constitute semantically distinct categorical syntagms, as the former are considered reducible to the latter. In this context, any individual object is seen as the result of the temporary cognitive segmentation of a unitary ontology of matter, or mass (Hansen 1983, ch. 2). The graspable 把 (*bǎ*)-shape of an umbrella or the elongated 支 (*zhī*)-shape of a thermometer are not seen as essential attributes of the sortal umbrella or thermometer; they are instead seen as accidental attributes of a single matter subject to change, which is contingently moulded by us into the 把 (*bǎ*)-shape or 支 (*zhī*)-shape for merely adaptive reasons. Unit and measurement classifiers both refer to mass terms and attribute contingent properties to them. From a propositional point of view, both are said to underlie synthetic, semantically informative propositions.

Having hypothesised that the grammatical structure of classifiers may reflect a non-dual way of thinking, I will argue that neither the first nor the second position can be considered adequately descriptive of the linguistic phenomenon in question.

On the one hand, as we shall see in §6, following the naturalised and historical turn in epistemology in the 20th century, a naive use of the analytic/synthetic distinction, such as that made by Her & Hisieh (2010), raises the suspicion of dogmatism from a philosophical point of view. On the other hand, as I will show in the following section, the way in which positions (S) and (A) understand the reduction of sortals to mass terms may not be very explicative.

V. Books, Shredded Books, and Layered Books

Notwithstanding the suspicion that a naive use of the analytic/synthetic distinction may arouse, the “*syntheticity* of unity classifiers” position proves rather counter-intuitive. Her & Hisieh (2010)’s idea that this counter-intuitiveness amounts to impossibility, however, strikes me as a *non sequitur* (Her & Hisieh 2010, 533). Furthermore, a certain interpretation of the reduction of sortals to mass terms leads one to see both (A) and (S) as unfruitful positions from an explicative point of view. In this respect, I shall refer to the explication criteria provided by Carnap (1950), which are still current in both the philosophical and the scientific field (Carus 2007; De Winter & Kolosky 2012). According to these criteria, an *explicandum* must be: (i) similar to the *explicatum*; (ii) exact, or rigorous; (iii) fruitful; and (iv) simple.

There are two ways to interpret the reduction of sortals to mass terms. The first can be found in the following passage, where this reduction occurs through the “fragmentation” of sortals:

Under this view, *xiāngjiāo* ‘banana’ can only refer to the banana mass, and the reading of a natural unit of banana with peel is only accidental and due to the classifier *gen*, which ‘carves out’ an elongated discrete unit. This view thus predicts that [...], besides this natural reading, can also mean *an elongated unit of bits or pieces of the banana substance or mashed banana*. Such a reading is simply impossible. (Her & Hisieh 2010, 533, italics mine)

In this case, the relationship between the starting sortal and the target mass term is equivalent to the relationship there might be between a vase and its shards, between a house and the pile of its rubble, or between a basket of freshly picked lettuce and its chopped up leaves in a salad. By the following argument I wish to argue that this kind of reduction of sortals to mass terms is not very explicative.

If in 一本书 (*yī běn shū*, “a book”) the character 书 (*shū*, “book”) referred to a book that has unfortunately passed through a paper shredder, it would be unclear why modern Chinese uses the expression 一桌子书 (*yī zhuōzi shū*, “a table of books”), with 桌子 (*zhuōzi*, “table”) acting as a classifier, to indicate the situation depicted in [Fig. 1] while choosing a different structure, i.e. adjectival or 的-structure, such as 一张用书做的桌子 (*yī zhāng yòng shū zuò de zhuōzi*, “a table made of books”), to describe situations such as those in [FIG.2]. In the latter case, a table, or other individual object, is materially – and rather unusually – made of shredded paper or, as depicted in [FIG. 2], recycled books stacked in columns or joined together to form tops and columns.

If we assume that the semantics of 书 (*shū*, “book”) is reduced to that of a crumbled book, or of books joined together through continuous columns or surfaces, and that the classifying term 桌子 (*zhuōzi*) serves to give it a 桌 (*zhuō*)-shape, i.e. a table-like form, then the first sentence and the second should have the same semantics, thus creating discrepancies with respect to the actual use of the Chinese language. At least on the basis of the aforementioned criteria (i)-(iv), the conflict between the modality of the reduction of the sortal to the mass term and ordinary language can be understood in terms of the former’s lack of explicative power with

respect to the latter. [12]

In my view, it is possible to avoid this explicative difficulty by modifying the interpretation of the reduction of sortals to mass terms. In line with the adoption of an ecological methodology, I propose to replace the idea of fragmentation with that of the reduction to objectual regions or spheres, which for the sake of convenience I shall call “material layers”, borrowing concepts in use in phenomenology and early neo-empiricism (Carnap 1928, §§18-29; Husserl 1976 ch. 1). The idea of a layered material ontology paves the way for a view of objects, or entities, as complexes of elements of various types: physical, chemical, and biological, as well as phenomenal and cultural. In this sense, the sortal “newspaper page” can be reduced to a mass term by identifying the material layers that compose it from a phenomenal (qualitative and extensive), genetic, or natural (e.g. biological or chemical) as well as cultural (historical, social, or even religious) point of view. I will refer to the two modes of reduction as reduction by layers and reduction by fragmentation.

It could be argued that not all the constituent layers of an object are “material” or correspond to the semantics of mass terms. However, *hic sunt leones*: for there is no detailed literature discussing the issue of whether or not we can have a semantic of mass expressions of the abstract (Nicolas 2018, 25-6), cultural, or even spiritual type. Moreover, according to the deflationist view of the sortal/mass distinction that I have adopted, there is nothing to prevent us from treating the phenomenal, physical, biological, and cultural layers of an object as its constituent materials.

To return to the case of 书 (*shū*, “book”), we can find: certain tactile, visual, and olfactory sensations in its phenomenal material layer; the chemical elements that make up paper and the book’s derivation from plant matter in its genetic and natural layer; and the system of writing used, or even the page numbering in its cultural layer. After all, if we look up the character 书 (*shū*) in a modern Chinese dictionary, we will find, in addition to the meaning “book”, precisely the meaning “writing”. Indeed, we should bear in mind that the names of the various types of Chinese calligraphy are composed by determination of the term 书 (*shū*), here generally translated as “script” or “style”. [13]

By adopting the viewpoint of reduction by layers, writing can be seen as a material cultural layer of the book, thus gaining at least two advantages. Firstly, we retain the possibility of reducing sortals to terms seen as a mass without having to make assumptions that may be regarded as particularly counter-intuitive. Secondly, we retain the possibility of adopting a valid version of the mass-noun hypothesis (Harbsmeier 1991) – according to which in (classical) Chinese all nouns are mass terms – where the problem of classifiers borders on the thorniest problems related to the philosophy of language in the Chinese philosophical tradition (cf. Hansen 1983, chs. 4 -5). [14]

In further support of this layered interpretation of the reduction of sortals to mass terms, we might advance a specific reading of some experiments carried out according to an empirical approach to classifiers among speakers

[12] Here I will not discuss point by point why reduction by fragmentation would violate (i)-(iv). So I will essentially rely on the intuitive strength of my argument. To make it more formal, I should define what one means by similarity, rigour, productivity, and simplicity, as the definition of these terms is always subject to negotiation.

[13] I am referring to: 楷书 (*kǎi shū*) “regular script”, 行书 (*xíng shū*) “semi-cursive script”, 草书 (*cǎo shū*) “grass style”, 篆书 (*zhuàn shū*) “seal script”, and 隶书 (*lì shū*) “clerical script” (see e.g. Von Norden 2019, xxix).

[14] I am referring to the so-called white horse paradox (see § 7 below). Hansen (1987, chs. 4-5) offers one of the most thorough discussions of the topic, from both a historical and a theoretical point of view.

of classifier and non-classifier languages (Jiang 2017, ch. 3). To do so, however, we would have to develop a preliminary hermeneutics of such experiments, the discussion of which would fall beyond the theoretical scope of this paper.

VI. The Analytical and the Synthetic in the Classifier System

In the present section, I will argue that for different reasons both the notion of the analytic and that of the synthetic advanced in the formulation of positions (A) and (S) (see §4) present dogmatic or methodologically unacceptable features.

The historical and naturalised turn in epistemology has revealed traces of dogmatism within the notion of the analytic. In the field of classifiers, this notion lends itself to at least three types of objections.

The first objection concerns the alleged possibility of having non-informative propositions. This claim is based on the naive assumption that there exists a reliable criterion to distinguish between the plane of facts and that of language – an assumption from which philosophy progressively freed itself over the course of the second half of the 20th century. The second type of objection concerns the combination of the two assumptions according to which, from a propositional point of view, unit classifiers are non-informative, or redundant, and attribute – from a more properly semantic point of view – permanent properties to the nouns to which they apply. Unless it is properly articulated, this combination may betray an erroneous epistemological flattening between questions of fact and questions of validity or justification (Popper 1935, 4).

The third type of objection, which I will explore below, specifically concerns the idea that unit classifiers attribute permanent properties to the nouns to which they apply. This condition can be refuted by means of some counterexamples. Assuming that classifiers attribute properties, if we can detect the presence of nouns that change their unit classifiers over time, then the attribution of permanent properties must not necessarily be considered a criterion for distinguishing between unit classifiers and measure classifiers.

Such counterexamples can indeed be found. In order to identify them, it is useful to study not so much the evolution of classifiers from the point of view of the names to which they apply, but rather that of the names from the point of view of the classifiers that apply to them. This latter approach will lead us to go somewhat against what I have identified as the prevailing trend in the study of taxonomies of classifiers, where the former perspective is generally favoured over the latter. As I have been unable to find any study specifically devoted to the evolution of nouns from the perspective of their classifiers, the following counterexamples concerning the classifiers 头(*tóu*) and 颗(*kē*) are based on Jiang (2019)'s study of the semantic structure of classifiers. They show that the condition of the attribution of permanent properties, underlying position (A), is difficult to support empirically.

1. The classifier 头 (*tóu*) is generally applied to nouns denoting animals or plants that are said to have a head, e.g. elephants, rhinoceroses, certain types of fish and birds, bees, garlic, cabbages, etc. Given

the arguably sortal typology of its nouns, 头 (*tóu*) can be considered a unit classifier – although Her & Hisieh (2010, 545) disagree. It does not, however, fulfil the characteristic of attributing permanent properties. There are a few examples of nouns that used to fall under 头 (*tóu*) in the Wei, Jin, and Southern and Northern dynasties, but are no longer classified in such a way in modern Chinese. An interesting case in point is provided by the names of sea creatures: although these animals lack the typical shape marked by a clear separation between the head and the rest of the body, there is evidence that the classifier 头 (*tóu*) was applied to them as early as the Spring and Autumn period and the Warring States period (403-221 BC). This usage would appear to have declined, however, from the Ming dynasty (1368-1644) onwards, when the classifier 头 (*tóu*) began to be replaced by 条 (*tiáo*), generally indicating elongated and sinuous objects such as roads or rivers. The classifier 头 (*tóu*) is only applied to large sea creatures today, such as whales, elephant seals, and so on.

2. Champions of position (A) regard 颗 (*kē*) as a unit classifier (Her & Hisieh 2010, 541-2 *passim*). It generally denotes objects that have a small round or spherical shape. Among the nouns thus classified are cells (细胞 *xì bāo*) and eggs (卵子 *luǎn zǐ*). However, the gravitation of these nouns around 颗 (*kē*) can be traced back to the appearance of the first microscopes, which at some point made it possible to assign the signified entities a 颗 (*kē*)-shape that would otherwise have been difficult to bestow on them.

81

Once position (A) has been discarded, we could argue for position (S), according to which all classifiers meet the description of a measure classifier. From the perspective of the ecological methodology we have adopted, however, the theory-of-knowledge framework that (S) tends to evoke is inappropriate. As can be seen from the excerpt below, the proponents of such a position evoke the idea of a subject located outside, or off-centre, with respect to the material reality to which the categories in question apply – much like a fisherman casting his net from the banks of a river to catch various types of fish.

In learning names we [...] discriminate or divide reality into [...] mereological stuffs which names name. Naming is not grounded on the notion of an abstract concept, a property, an essence, or an ideal type, but rather on finding “boundaries” between things. Accordingly, Chinese philosophers view minds not as repositories of weird objects called ideas, but as the faculty encompassing the abilities and inclinations to discriminate stuffs from each other. (Hansen 1983, 31-2)

This view of the abstract or embodied relationship between subject and object is philosophically polarising and its adoption conflicts with the assumed non-logocentric tendency of Chinese thinking on knowledge. Having committed myself, in order to support my working hypothesis, to drawing philosophical elements from a range of concepts in line with the idea of non-dual thinking, I find myself having to discard position (S) too for more methodological reasons.

VII. “Vanishing into”: Distinctions of Degree

“Vanishing into” are the first words from the title of a book I have repeatedly quoted: Barry Allen’s *Vanishing into Things, Knowledge in Chinese Tradition*, published by Cambridge University Press in 2015. In line with non-dualistic theses, the author argues that Chinese philosophical traditions, while not being eliminativistic, can be distinguished depending on how they dissolve the distinction between subject and object, i.e. depending on whether they dissolve the former into the latter, the former first and then the latter, or the two together (Allen 2015, 163).

From this point of view, our specific hypothesis is likely to be valid. On the basis of the arguments advanced in §§ 5 and 6, the distinction drawn between unit classifiers and sortals, on the one hand, and measure classifiers and mass terms, on the other, can be seen to amount to a distinction of degree rather than kind, in accordance with a non-dualistic perspective.

A sharp distinction between unit classifiers and measure classifiers in (A) would appear empirically untenable, and the reduction of unit classifiers to measure classifiers in (S) unreliable from an explicative point of view. Although the distinction between unit classifiers and measure classifiers is not sharp, I nevertheless find it fruitful to maintain a distinction of degree between the two.

Notwithstanding the idea that classifiers attribute properties to objects, some properties attributed by classifiers are more enduring than others. The 本 (*běn*)-shape of a book, i.e. its unitary, bound structure, is certainly more enduring than the 杯 (*bēi*)-shape or 瓶 (*píng*)-shape temporarily taken by water poured into a glass or bottle.

Similarly, we may argue that the distinction between sortal and mass is one of degree rather than kind. 书 (*shū*), for instance, seems to function as a sortal in 一桌子书 (*yī zhuōzi shū*, “a table of books”) and as a mass in 一张用书做的桌子 (*yī zhāng yǒng shū zuò de zhuōzi*, “a table made of books”). Instead of using the distinction between sortal and mass, we could thus use the much more inclusive one of material layer, where no constraints are placed on the sortal with respect to being, or becoming, a certain kind of material. [15]

Since the idea of a material layer encompasses elements that we would classify as both objective (i.e. physical, chemical, biological etc.) and subjective (i.e. phenomenal, cultural etc.), the profiles, shapes or forms that speakers attribute to nouns through the use of classifiers can also be considered material layers constituting objects. In this respect, then, there is no reason to approach the problem of classifiers by assuming a theory-of-knowledge framework polarised between subject and object or form and matter. By adopting the perspective of material layers, the idea of a subject and of forms lying outside the continuum of material ontology remains an uneconomical assumption. This lack of economy permeates Sinological thought even when the problem of classifiers is evoked, in the guise of the mass noun hypothesis, to clarify the so-called white horse paradox, according to which it would make sense to assert that a white horse is not a horse (see Hansen 1983, ch. 5). Proposed solutions tend to rely on various theories of meaning alternative to the set-based one. These solutions once again assume the subject/object distinction, as well as the form/matter

[15] As an anonymous reviewer pointed out, one could here probably speak of a conventionalist conception of individuality.

one, by putting particular semantic structures into the mind of the subject (cf. Harbsmeier 1991): mereological, prototypical, or conceptual space structures. The assumption of this type of framework in the theory of knowledge results in positions of analyticity and syntheticity with respect to classifiers that prove dogmatic or not very explicative, as we have seen.

On a general level, what emerges is that the linguistic branch of Sinology that deals with the system of classifiers might benefit from a reassessment of the theory-of-knowledge frameworks it assumes. The strictly “epistemological” framework, which is essentially dualistic, is adopted more frequently in contemporary philosophy than the “synthetic-biological” framework, which is essentially non-dualistic (Lanfredini & Del Sordo forthcoming). [16] However, the former proves weak when it comes to dealing with issues that intersect grammar and philosophy, where perhaps a global approach – as opposed to an analytical “*divide et impera*” one – is clearly preferable (Parrini 2022a, 77-9).

[16] More technically, in Lanfredini & Del Sordo (forthcoming), the synthetic-biological paradigm is introduced by reformulating the theory of experience through a reassessment of the notion of matter, seen as both purely determinable and an essential element in the cognitive process.

VIII. Conclusions

In conclusion, through the hypotheses laid out in this paper I hope to have shown the possibility of re-evaluating the role of impressions in philosophical research.

Having assumed that the grammar of a language reflects the overall characteristics of the philosophy expressed through it, and more specifically that the grammatical structure of classifiers may reflect that of non-dualistic thought, this article has reached the following conclusions, progressing from the general to the particular.

First, by adopting what I have called an ecological methodology, I have shown the need to reassess the assumptions underlying the theory-of-knowledge framework of Chinese linguistics. In the study of the classifier system, an ontology and epistemology founded on distinctions of degree rather than kind are preferable to philosophical positions that assume rigid distinctions between, for example, the subjective and objective, the formal and material, or the factual and linguistic planes. In this regard, it may be worth considering the possibility of adopting a *synthetic-biological* rather than *epistemological* philosophical paradigm. In other words – and technically speaking – both paradigms assume realist positions, but replace the centrality of the notion of non-observability with that of invisibility in ontology and, the notion of given with that of forceful qualities in the theory of experience (Lanfredini & Del Sordo forthcoming). The synthetic-biological paradigm promises to prove useful above all in the fields of embodied cognition and the philosophy of the human person. Taking into account the outcomes of the present study, those fields could fruitfully be set in dialogue with Chinese linguistics, and more specifically with the cognitive grammar approach to classifiers.

Secondly, this article has shown that the age-old distinction between unit classifiers, deemed to apply to sortals, and measure classifiers, deemed to apply to mass terms, can usefully be considered a distinction of degree rather than kind.

Thirdly, the article has demonstrated that the analytical/synthetic distinction in the classifier system produces empirically untenable theses

and that a certain way of reducing nouns regarded as sortals to mass terms is weak from an explicative point of view. I have therefore proposed to replace the concept of mass term with the ontologically more inclusive and neutral one of “material layer”.

Finally, many questions remain open, two of which stand out. First, the use of the notion of material layer in place of that of mass term needs to be specified further. Secondly, we need to test the broader capacity of the synthetic-biological paradigm to deal with philosophical and grammatical problems, of which the problem of classifiers and the white horse paradox are but two examples. Jiang & Zhou (2019)’s study provides a new starting point in this direction, insofar as it also reconsiders the role of dichotomies in Chinese thought.

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[FIG. 1] A table with books on it corresponds to the semantics of structure (II) used in 一桌子书 (yī zhuōzi shū, "a table of books").

[FIG. 2] A table made of books corresponds to the semantics of the 的-structure used in 一张用书做的桌子 (yī zhāng yòng shū zuò de zhuōzi, "a table made of books").

