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“Ryle, the Double Counting Problem, and the Logical Form of Category Mistakes”

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Abstract

Gilbert Ryle is most famous for accusing the Cartesian dualist of committing a category mistake. Yet the nature of this accusation, and the idea of a category mistake more generally, remains woefully misunderstood. The aim of this paper is to rectify this misunderstanding. I show that Ryle does not conceive of category mistakes as mistakes of predication, as is so widely believed. Instead I show category mistakes are mistakes of conjunction and quantification (in *The Concept of Mind* at least). This thesis uniquely unifies and explains the wide variety of Ryle’s remarks, judgments, and arguments.

I. Introduction

In the opening chapter of *The Concept of Mind*, Gilbert Ryle coined the phrase ‘category mistake’ and then promptly accused the Cartesian dualist of committing one.

Concept is easily one of the most influential works of 20th century philosophy: Google Scholar records a staggering 14,259 citations (far surpassing *Word and Object*’s 9770),¹ and its opening chapter is a staple of philosophy of mind courses and anthologies.² Even so, what Ryle thinks a category mistake is, and why he thinks the Cartesian commits one, is shrouded in mystery. Josh Parsons relates the following story.

I once made the mistake of trying to teach Ryle. I set the usual selection from [*The*] *Concept of Mind* as a reading, and after skimming it, made up some study questions to put on the syllabus. These were “What is a category mistake? Why does Ryle believe that Descartes has committed one?”... Two months later, the time came to prep my lectures and I re-read the reading more carefully. To my horror, I realised that I had no idea what the answer to either study question was. Really none. If I had been a student in my own class I would have felt that I was failing.³

¹ Search conducted May 22, 2016. Naturally I do not assume Google Scholar, or any metric, is a perfect indicator of influence. No noninfluential book could have that many citations, however.

² Chalmers, *Philosophy of Mind: Classical and Contemporary Readings*, is a prominent example.

³ Parsons, comment on Weatherson, “Category Mistakes”.

Even for those researching category mistakes Ryle's view is a puzzle. Ofra Magidor's *Category Mistakes* is the only major book-length treatment of the subject in recent years.⁴ Magidor only discusses Ryle vis-à-vis Cartesian dualism for one paragraph, however, and her judgment is not flattering. According to Magidor

it is far from clear what Ryle took the central category mistake in the dualistic position to be. Sometimes he talks as if it is speaking of the mind in mechanistic-like terms (as in talk of mental causation) [pp. 19–20]. In other places, he seems to be worried by a kind of 'double counting' problem. He notes that a "purchaser may say that he bought a left-hand glove and a right-hand glove, but not that he bought a left-hand glove, a right-hand glove, and a pair of gloves" (p. 22). The proposal is that what is wrong with this description is that it involves an illegitimate mix of types – talking of the types 'glove' and 'pair of gloves' in the same occasion. Equally, he argues, mind and body are of different types, so one cannot legitimately discuss both at the same time. At any rate, his general position seems to be that most classic problems in the philosophy of mind.. arise merely because of some sort of a category mistake. But other than a few rather obscure examples, Ryle does not say much about what category mistakes are or how one should account for them (ibid., p. 10).

I for one do not share Parson's and Magidor's negative assessment: despite the paradoxical flavor of the claim, I believe Ryle is more clear than it may seem. In fact, Ryle says more than enough to reconstruct a clear, consistent, and coherent account of category mistakes. So one goal of this paper is to explicate that account. Another is to diagnose and debunk the reasons it is so widely misunderstood. A third is to show that Ryle's allegation against Descartes is a simple and straightforward application of his more general conception (and so is independent of what some may think of as Ryle's outdated behaviorism). Perhaps more colorfully put, then, my goal in this paper is to answer Professor Parson's study questions, and to dispel whatever mystery remains regarding Ryle's most famous idea. In so doing I will also make a case for Ryle's continuing relevance: as we will see, Ryle's conception of category mistakes has interesting and provocative implications regarding the logic of existence statements- surely a subject at the foundation of many areas of ongoing philosophical research.

⁴ See Lappin, *Sorts, Ontology, and Metaphor*, for a classic study from a previous generation.

2. Diagnosing the confusion

Why is Ryle's view misunderstood? In this section I propose four theses I believe are widely believed about Ryle and category mistakes, but which are puzzling in light of each other. I describe these here with the hope that an initial diagnosis will allow for a speedier recovery. I begin with what I will "background thesis 1".

- 1 A category mistake is a sentence that pairs an ill-suited subject and predicate, such as 'the number 2 is pink' or 'Saturday is in bed'.

This is undoubtedly the canonical view. 'Saturday is in bed' is Ryle's own example from a 1938 paper ("Categories"). Shalom Lappin (*Sorts, Ontology, and Metaphor*, 1) opens his book by listing five paradigm category mistakes of "subject-predicate form": namely, 'quadruplicity drinks procrastination' (Russell's example), 'this stone thinks of Vienna' (Carnap's example), 'prime numbers are hungry', 'love has a smooth surface', and 'my table is recursively enumerable'. Magidor begins her book on category mistakes in much the same way: she declares that "category mistakes are sentences such as 'the number two is blue', 'the theory of relativity is eating breakfast', or 'green ideas sleep furiously'" (Chomsky's example). She then adds two more examples: 'John is drinking the theory of relativity' and 'the theory of relativity is drinking beer'.⁵

It should be noted that in that 1938 paper Ryle did not actually use the phrase 'category mistake' to describe 'Saturday is in bed'; in that paper he called it a "type-trespass" (p. 200). This is not to say that 'Saturday is in bed' is not a category mistake (of course it is). When Ryle introduced the phrase 'category-mistake' in *Concept* (p. 16), however, he gave several new "illustrations" to indicate his meaning, and none is obviously a subject/predicate mistake akin to those just listed. I will describe these illustrations in detail later. For now

⁵ Magidor, *Category Mistakes*, 1. See also Dancy, "Ryle and Strawson on category mistakes", 11.

consider only (part of) the first. Ryle imagines a visitor to Oxford observes a college, library, and a museum. The visitor then asks ‘but where is the university?’. Ryle responds that the visitor committed a category mistake, explaining that

his mistake lay in his innocent assumption that it was correct to speak of Christ Church, the Bodleian Library, the Ashmolean Museum *and* the University, to speak, that is, as if ‘the University’ stood for an extra member of the class of which these other units are members.⁶

Whatever exactly this mistake amounts to it is not self-evidently the same as that made by ‘Saturday is in bed’ or ‘this stone thinks of Vienna’. So if one has in mind the canonical conception of category mistakes (as ill-suited subject/predicate pairings), what explains the visitor’s mistake as a category mistake may be puzzling.

So what is the visitor’s mistake? Recall Magidor describes a category mistake as a “double counting problem”, which is the mistake of counting one thing twice. Certainly this gloss is plausible *prima facie*; in light of Ryle’s denial that the university is an “extra member”, it seems natural to construe the visitor’s mistake as a failure to realize that the university is already included in the tally that includes the library and the other buildings.⁷ Assuming the same reading is available for his other cases (not yet discussed) yields a second background thesis:

- 2 Ryle introduces the meaning of ‘category mistake’ via cases in which someone commits a double counting error, i.e. someone counts x and y as two when in fact x is identical to y .

Whatever its other merits 2 does not assuage the difficulties vis-à-vis 1, however. Paradigm subject/predicate category mistakes do not seem to be double counting errors, nor do they

⁶ Ryle, *The Concept of Mind*, 16. Original emphasis.

⁷ This is quite literally a “textbook interpretation”. In Perry et al, a textbook widely used in introductory philosophy courses, the glossary entry for ‘category mistake’ explains that the visitor “apparently thinks that the university is yet another building in addition to the library, and so on, whereas in reality it is more like the sum total of such buildings and their relationships” (p. 842).

seem to have anything to do with (mis)counting at all. Nor is (mis)counting self-evidently connected to categories more generally. So one may still wonder what makes the visitor's mistake a *category* mistake (besides Ryle's stipulation it be called one).

I will return to these problems later. In the meantime note that because the university example is (among those) meant to illustrate what Ryle means by saying the Cartesian commits a category mistake, a natural thought is to apply the idea expressed in 2 to dualism. Hence a third background thesis:

- 3 According to Ryle the Cartesian dualist commits the aforementioned double counting error: just as the visitor mistakenly counts the university as something in addition to the buildings, the dualist mistakenly counts the mind as something in addition to the body (or behavior).

Note that 3 seems to presuppose that the mind is really nothing but (or at least nothing over and above) the body (or behavior). This yields

- 4 The accusation that the dualist commits a category mistake is based on (or is motivated by) Ryle's philosophy of mind, according to which the mind is not distinct from (or over and above) the body (or behavior).

Like 2 and 3, however, 4 is puzzling in light of 1 (i.e. the relation to paradigm subject/predicate category mistakes remains unclear).⁸ Moreover, 'the number 2 is pink' seems to commit a category mistake independently of any controversial philosophical doctrine, whereas according to 4 it is only in light of a controversial philosophical doctrine that the dualist commits one. Not only is this difference curious, but it makes Ryle's

⁸ Recall Magidor suggests a reading according to which the category mistake is ascribing mechanical properties to the mind. One might think this would involve mistaken subject/predicate statements akin to 'Saturday is in bed'. Even were this right in this case, this model is unable to account for either the university example or any other category mistake Ryle discusses in the opening chapter of *Concepts*, as we will see summarily.

accusation subject to behaviorism's refutation. The status of 'the number 2 is pink' as a category mistake, by contrast, does not seem similarly subject to refutation. Whence these differences? It is not obvious.

To briefly summarize: I believe 1–4 are commonly held, but they render Ryle's idea of a category mistake, and why the Cartesian makes one, something of a muddle. These reasons may not even be exhaustive. For instance a fifth idea may also be widespread (and is worth discussing in any event).

- 5 Ryle has a strange view of what is categorially different from what: e.g. he thinks a college and a library differ categorially from a university, and that a right-hand glove differs categorially from a pair of gloves.

My aim in the rest of this paper is to dispel the confusion. I will do so by explaining not why just one of 1–4 is false, but why *each* of 1–4 is false, at least according to Ryle. (Doing so will also provide the basis for dispelling the confusion expressed by 5; as we will see, Ryle's judgments of categorial difference are quite principled). I suspect this may strike some as surprising if not rather implausible. But as I will show summarily it is the case: none of 1–4 is an adequate characterization of Ryle's conception of category mistakes in *The Concept of Mind*.

3. Category mistakes as cross-categorial conjunction-cum-quantification

In this section I present in broad outline my account of Ryle's conception of a category mistake. In particular I offer four alternatives to 1–4. I will defend these claims with detailed textual evidence in the next section.

I should first emphasize that by rejecting 1 I am not denying that there are subject/predicate category mistakes. What I reject is 1's implicit universality- that *all* category mistakes are of this form. What Ryle believes is that there are also category mistakes of an

entirely different form: just as some subjects and predicates are not fit to be coupled due to type differences, so too are some *sentences* not fit to be coupled due to type differences. Ryle is especially emphatic that *conjunctions* commit category mistakes when the conjoined sentences belong to different types. Hence I defend

- 1' Not all category mistakes are mistakes of predication (of the form Fx). Some category mistakes are mistakes of conjunction (of the form $P\&Q$).⁹

As we will see summarily, each example that Ryle gives in the opening chapter of *Concept*—including the university and pair of gloves examples, which we have already seen—is a category mistake of conjunction. None is a mistake of predication.

Of particular interest is that Ryle identifies conjunctions with existentially quantified conjuncts as committing category mistakes. Ryle identifies what I will call *enumerative* claims—claims which assert that there exist a certain number of things—as being paradigms of categorially mistaken conjunctions. Amie Thomasson (*Ordinary Objects*, 77) makes a helpful point here: that “counting is simply a formal way of using a long conjunction”. That is, to say ‘there is an x and a y and a z ’ is to say ‘there are three things’ (assuming nonidentity). Ryle’s crucial idea, however, is that not every such count is legitimate: according to Ryle if x , y , or z differ in category, to say ‘there is an x and a y and a z , such that there are three’ is a category mistake. More precisely but still schematically, what I will call a *conjunctive-cum-quantificational category mistake* takes the following form: ‘there are n things (of one type) and 1 thing (of another type), such that there are $n+1$ things’. Each example Ryle gives to show what he meant by ‘category mistake’ fits this schema exactly.

Even if one concedes 1', one may think what I am calling a conjunctive-cum-

⁹ Ryle also believes disjunctions can commit category mistakes for similar reasons (*Concept*, 16, 22, *passim*). I will ignore this for simplicity, but my account is equally well-equipped to handle these mistakes as well.

quantificational category mistake is just a way of describing the double counting error (identified in 2). But this is incorrect. Instead I defend

- 2' Ryle's cases uniformly show that it is a category mistake to say 'there are n things (of one type) and 1 thing (of another type) such that there are $n+1$ things'- *even if the n things and the one thing are not identical.*

I highlight this latter phrase both because I suspect it to raise eyebrows, but also because I believe not understanding this is the factor most responsible for misunderstanding Ryle's view. It can be quite counterintuitive—perhaps one might even think it incoherent—to suppose that there can be n things and something else yet they (somehow) fail to add up to $n+1$. But I must insist: this really is exactly what Ryle is saying. More on this summarily.

Recall 3: the Cartesian error is an instance of the double counting error identified in 2. In lieu of 3 I defend

- 3' The Cartesian mistake is an instance of the schema in 2': even if 'there is a mind' is true *and* 'there is a body' is true, it is still a category mistake to say 'there exists a mind and a body, such that there are two'- *even if that mind and body are not identical.*

Because on my reading Ryle can freely concede that the mind and body are not identical (per 2' and 3'), he does not require a philosophy of mind (such as the identity theory or behaviorism) which would deny the difference. Hence

- 4' Ryle's accusation that the Cartesian commits a category mistake does not require the truth of his philosophy of mind. Rather, it is an application of a more general (and prior) thesis regarding the logic of existence claims (enumeration via conjunction and quantification in particular).

Having briefly set out theses 1'–4', the main goal of the rest of this paper is defend them.

Doing so via a close examination of *The Concept of Mind* (and related texts) will reveal a clear,

consistent, and coherent conception of category mistakes.

4. From predication to conjunction-cum-quantification

My foundational claim is that Ryle recognizes category mistakes of conjunction in addition to mistakes of predication. To better understand the former I will first spell out some corollaries (labeled 1a–1d) of the predicative view of category mistakes.

1a The logical form of a subject/predicate category mistake is Fx , where x is a variable ranging over objects which cannot, in some suitably strong sense, possibly satisfy the property expressed by the predicate F .^{10,11} Because an Fx category mistake involves sentence-elements (rather than sentences) being ill-matched,

1b the locus of the category mistake is subsentential.

Because Fx is an atomic sentence (a sentence containing no sentence as a part),

1c it is atomic sentences that (primarily) commit category mistakes.

I say ‘primarily’ because compound statements may also commit category mistakes. For instance, Magidor (*Category Mistakes*, 3) notes that ‘the number two isn’t blue’ and ‘either the number two is blue or it is prime’ are similarly “infelicitous” as the atomic sentence ‘the number two is blue’. In each case, though, the compound category mistake inherits the

¹⁰ It may be noticed that ‘green ideas sleep furiously’ (Chomsky’s 1957 example) is slightly more complex than Fx . Lappin (*Sorts*, 1) also notes that although philosophers have tended to focus on the aforementioned subject/predicate (Fx) constructions, “sortal anomaly also arises in adverbial constructions” such as ‘Bill knows the theory slowly’, ‘Sam sleeps quickly,’ and ‘John wrote on top of the theory’. Similarly, Magidor (*Category Mistakes*, 2) observes that “Category mistakes can involve expressions of a wide variety of syntactic types (e.g. verbs as in ‘The theory of relativity is sleeping’; adverbs, as in ‘sleeps furiously’; or prepositions as in ‘underneath the number two’).” Even if Fx is not an adequate regimentation of these different grammatical types, however, this complication is not germane here. For even if something more complicated or subtle is required, these sentences undoubtedly contain some categorially mistaken expression Fx as a component, and corollaries 1b–1d will still apply. And it is the features described therein that are important in this context.

¹¹ By ‘logical form’ I do not necessarily mean deep as opposed to superficial form. I mean only surface form rendered in logical notation. Whether this regimentation also captures deep form I leave as an open question. My thanks to Tucker McKinney for raising this point.

mistake of its component (atomic) statement; hence the primacy of the latter. Generalizing suggests

1d a compound sentence commits a category mistake only if a component statement does.

Granted, 1d is not entailed by the previous. Yet it seems to have been orthodox. The 1960's and '70's saw an extensive literature on how category mistakes should be formally represented. Much of the discussion concerned the effects of category mistakes on bivalence and truth-functionality- in particular whether category mistakes are neither true nor false (and so require a third value), and/or whether if false the negation of a category mistake is also false. Various nonstandard truth-tables and inference rules were proposed to accommodate these and related possibilities (see e.g. Pap, "Types and meaninglessness" (1960); Sommers, "Types and Ontology" (1963); Goddard, "Predicates, relations and categories" (1966); Lambert, "On the no type theory of significance" (1968); and Bergmann, "Logic and sortal incorrectness" (1977)). As best I can tell, however, none of these systems involve compound statements committing category mistakes without a component statement committing one. So 1d seems to have been the working assumption for those looking to establish a logic of category mistakes.

The reason I emphasize not only 1 but corollaries 1a–1d is that Ryle *rejects* each of them in the opening chapter of *Concept*. Though this is evident from his series of illustrations (pp. 16–17), I will first jump ahead to the following passage from p. 22, where the rejection of 1, as well as 1a–1d, are apparent in his criticism of Descartes.

When two terms belong to the same category, it is proper to construct conjunctive propositions embodying them. Thus a purchaser may say that he bought a left-hand glove and a right-hand glove, but not that he bought a left-hand glove, a right-hand glove *and* a pair of gloves. 'She came home in a flood of tears *and* a sedan-chair' is a well-known joke based on *the absurdity of conjoining terms of different types*.. Now the dogma of the Ghost in the Machine does just this. It maintains that there exist *both* bodies *and* minds; that there occur

physical processes *and* mental processes; that there are mechanical causes of corporeal movements *and* mental causes of corporeal movements. I shall argue that these and other analogous *conjunctions* are absurd; but, it must be noticed, the argument will not show that either of the *illegitimately conjoined propositions is absurd in itself*. I am not, for example, denying that there occur mental processes.. But I am saying that the phrase ‘there occur mental processes’ does not mean the same sort of thing as ‘there occur physical processes’, and, therefore, that *it makes no sense to conjoin or disjoin the two* (my emphases).

Ryle clearly believes there are category mistakes of conjunction: whereas it is “proper to construct conjunctive propositions” via terms that “belong to the same category”, it is “absurd” to conjoin “terms of different types”. So Ryle rejects 1 and 1a as comprehensive. Yet no conjunct need be “absurd in itself” in order for the resultant conjunction to be absurd. So he rejects 1d. This is not merely hypothetical: each illegitimate conjunction he cites consists of conjuncts which commit no mistake independently. For example, ‘there occur mental processes’ and ‘there occur physical processes’ are each well-formed (and true) in isolation, Ryle claims, yet their conjunction commits a category mistake. ‘She bought a left-hand glove’, ‘she bought a right-hand glove’ and ‘she bought a pair of gloves’ are each independently well-formed yet their conjunction is ruled absurd. Even ‘she came home in a flood of tears’ and ‘she came home in a sedan-chair’ are (or would be) well-formed independently but absurd in conjunction. Because in each case it is compound not atomic statements that commit a category mistake he rejects 1c. This implies that the locus of the category mistake is sentential rather than subsentential. It is crucial to note that these points all hold for conjunctions with existentially quantified conjuncts as well. Ryle cites ‘there exists bodies and minds’ (*Concept*, 23) as consisting of quantified conjuncts which are well-formed (and true) in isolation yet yield a category mistake when conjoined. (I assume ‘there occur mental and physical processes’ also counts as quantified.) So for Ryle, just as the phrases ‘the number two’ and ‘is pink’ are well-formed in isolation but not combinable, so too are the sentences ‘my body exists’ and ‘my mind exists’ well-formed in isolation but not

combinable. Succinctly stated, according to Ryle conjunctions with independently well-formed existentially quantified conjuncts may commit category mistakes.

This argument constitutes a partial demonstration of 1'. The remainder of the demonstration consists of showing that Ryle's other examples fit the pattern. As indicated earlier, Ryle coins the phrase 'category mistake' on p. 16 of *Concept*, the meaning of which he indicates "in a series of illustrations." I now quote these at length. In the first,

A foreigner visiting Oxford or Cambridge for the first time is shown a number of colleges, libraries, playing fields, museums, scientific departments and administrative offices. He then asks 'But where is the University? I have seen where the members of the Colleges live, where the Registrar works, where the scientists experiment and the rest. But I have not yet seen the University in which reside and work the members of your University.' It has then to be explained to him that the University is not another collateral institution, some ulterior counterpart to the colleges, laboratories and offices which he has seen. The University is just the way in which all that he has already seen is organized. When they are seen and when their coordination is understood, the University has been seen. His mistake lay in his innocent assumption that it was correct to speak of Christ Church, the Bodleian Library, the Ashmolean Museum *and* the University, to speak, that is, as if 'the University' stood for an extra member of the class of which these other units are members. He was mistakenly allocating the University to the same category as that to which the other institutions belong (original emphasis).

In the second, Ryle claims

The same mistake would be made by a child witnessing the march-past of a division, who, having had pointed out to him such and such battalions, batteries, squadrons, etc., asked when the division was going to appear. He would be supposing that a division was a counterpart to the units already seen, partly similar to them and partly unlike them. He would be shown his mistake by being told that in watching the battalions, batteries and squadrons marching past he had been watching the division marching past. The march-past was not a parade of battalions, batteries, squadrons *and* a division; it was a parade of the battalions, batteries and squadrons *of* a division (original emphases).

Ryle then adds "one more illustration".

A foreigner watching his first game of cricket learns what are the functions of the bowlers, the batsmen, the fielders, the umpires and the scorers. He then says 'But there is no one left on the field to contribute the famous element of team-spirit. I see who does the bowling, the batting and the wicketkeeping; but I do not see whose role it is to exercise *esprit de corps*.' Once more, it would have to be explained that he was looking for the wrong type of thing. Team-spirit is not another cricketing-operation supplementary to all of the other special tasks. It is, roughly, the keenness with which each of the special tasks is performed, and performing a task keenly is not performing two tasks. Certainly exhibiting team-spirit is not

the same thing as bowling or catching, but nor is it a third thing such that we can say that the bowler first bowls *and* then exhibits team-spirit or that a fielder is at a given moment *either* catching *or* displaying *esprit de corps* (original emphases).

Ryle is clearly illustrating category mistakes of conjunction here as well; he even italicizes the word ‘and’ in all three cases.¹² Note also that each categorially mistaken conjunction concerns counting or enumeration, and that each illicit conjunction conjoins sentences which are unproblematic in isolation. To say ‘there is a college (1), a library (2), and a museum (3)’ is unproblematic, whereas adding ‘*and* there’s a university (4)’ commits a category mistake. To say ‘there’s a battalion (1), a battery (2) and a squadron (3)’ is fine, whereas adding ‘*and* there is a division (4)’ commits a category mistake. To say ‘there is a bowler (1) and a catcher (2)’ is fine, whereas adding ‘*and* there’s team-spirit (3)’ commits a category mistake. There is a formula: in each case, n well-formed atomic claims are conjoined to yield a legitimate count, but then an additional conjunct is added and illicitly counted as the $n+1^{\text{st}}$. Schematically: a category mistake asserts ‘there are n things (of one category) and one (of another category) for a total of $n+1$ ’.

To briefly recap: I have shown that Ryle’s three main illustrations (the university, division, and team-spirit cases) commit category mistakes of conjunction-cum-quantification. I have also shown that the pair of gloves and sedan-chair cases fit the pattern. (Dualism too.) This constitutes my major defense of thesis 1'. There remain only two more cases to explain, which Ryle describes shortly after the team-spirit case (*Concept*, 17). In the first, Ryle imagines a student of politics unable to answer questions about the connections between the Church of England, the Home Office, and the British Constitution. In the second, he imagines someone who is “baffled” to say why he would not come across the Average Taxpayer in a street or restaurant. These cases do not fit the above-defended schema quite as explicitly, but

¹² Worth noting is that Ryle italicizes ‘and’ in a similar context in “Categories”, 194.

the same basic idea of illicit enumeration is clearly present. To explain the student's mistake, Ryle claims that his confusion is due to not realizing that "the British Constitution is *not another* institution" in the same sense as the first two (my italics). And "as long as John Doe continues to think of the Average Taxpayer as a fellow-citizen", i.e. as *yet another* taxpayer, Ryle writes, the mistake will live on. So these examples also involve erroneous counts, and with some minor tweaking fit exactly the pattern I have detected so far: to say 'there is the Church of England (1), the Home Office (2), *and* the British Constitution (3)', and to say 'there are n taxpayers *and* an average taxpayer ($n+1$)', commits a category mistake for reasons already explained. This completes my defense of 1'.

5. Double counting vs. cross-categorical counting

Recall the double counting interpretation of a category mistake (as described in 2–4). Even if one concedes my 1' one may still think the double counting reading is essentially correct. It is not hard to see why. Suppose one has in mind that Ryle defends a form of behaviorism (later in *Concept*). On the traditional Cartesian conception (at least as Ryle understands it), mentality is private or accessible only to the subject; the qualitative aspect of consciousness—or whether there is any at all—is epistemically inaccessible to anyone else. Of course the behaviorist rejects this; the behaviorist claims first-person knowledge is equally accessible to third-person observation. (The linguistic corollary being that the meaning or semantics of mental terms and assertions is given by publicly observable behavior.) With these doctrines in mind it is easy to read Ryle's three major illustrations as saying much the same thing. Rather than the university being some 'ulterior counterpart' akin to some additional yet inscrutable Cartesian mind, tucked away from view, Ryle claims that when one has seen the way the buildings are organized one has seen the university- just

as, perhaps, one has seen the mind when one sees how a person behaves (according to behaviorism). This in turn encourages the double counting reading: if the university just is the way the buildings are organized and one has seen (and counted) the buildings, there is no further thing to count. There is only the buildings. Similarly, when one has counted e.g. body parts and seen how they behaved, there is no further thing—no additional mind—to be seen. There is just a body behaving. To count the university as an extra thing, or to count the mind as an extra thing, is a mistake of double counting. One might then apply this behaviorist-cum-double-counting reading to the other examples. Once one has seen the battalions, batteries, and squadrons one has already seen the division, and once one has seen whose job it is to play the cricket-positions one has seen whose job it is to display team-spirit. So there is a temptation to give these examples an epistemic gloss: once one has observed something (publicly available), there is no need to posit some additional vaguely unobservable occult-sounding thing (some ‘ulterior counterpart’). Instead, what seems like an ‘extra’ thing—the university, the division, team-spirit— is really (identical to) some previously observed thing(s).

One reason this reading is inadequate, however, is that Ryle thinks counting may be illegitimate even in cases of *nomidentity*. In fact, with my hypothesis in mind the reader may have noticed that Ryle explicitly says this in his explanation of the team-spirit case. I will quote the relevant part again, this time with my emphases added (in boldface).

Team-spirit is not another cricketing-operation supplementary to all of the other special tasks. It is, roughly, the keenness with which each of the special tasks is performed, and performing a task keenly is not performing two tasks. Certainly exhibiting team-spirit is **not the same thing as** bowling or catching, but **nor is it a third thing** such that we can say that the bowler first bowls *and* then exhibits team-spirit or that a fielder is at a given moment *either* catching *or* displaying *esprit de corps* (p. 17, italics in original).

The double counting reading obviously requires identity: x and y are one but are counted as two. Yet Ryle is explicit that team-spirit is not identical to (“not the same thing as”) bowling

or catching. So he does not only deny there is a third thing, *he also denies there are only two things*: team-spirit is neither identical to the previous two nor a third. As I have insisted, Ryle holds there can be n things and something else without there being $n+1$.

Now, one might at this point concede that Ryle does say this (regarding team-spirit at least), but that either this does not make any sense (philosophically), or that it does not apply to the other examples (textually). I will address (and defend) the philosophical claim in a moment. First I want to emphasize that it does apply to the other examples. Recall the claims Ryle makes above: that bowling and catching are tasks but team-spirit is not another task. Instead, team-spirit is the “keenness” with which the tasks are performed (and of course “performing a task keenly is not performing two tasks”). But what is keenness? It is hardly objectionable to say keenness is a *way* the tasks are performed (namely, keenly or spiritedly). With this in mind consider the following rendering of the above-quoted passage, with ‘task’ and ‘way of performing that task’ (along with appropriate cognate expressions) substituted in.

Team-spirit is.. roughly, the [way] each of the special tasks is performed, and performing a task [in a certain way] is not performing two tasks. Certainly [performing a task in a certain way] is **not the same thing as** [performing those tasks], but **nor is it a third thing** such that we can say that the bowler first [performs a task] *and* then [performs a task in a certain way] or that a fielder is at a given moment *either* [performing a task] *or* [performing a task in a certain way].

I trust the reader will accept these substitutions as a faithful rendering. Further evidence is that many times throughout *Concept* Ryle emphatically distinguishes some thing, or the doing of some thing, from the way that thing is or the way that thing is done (see pp. 40, 48, 74, 138, 142, 144, 167, 260, and 296 for example). This also sets the stage for a better analysis of the university example. Recall that Ryle says “the University is just the *way* in which all that he has already seen is organized” (my emphasis). So Ryle is in fact making the same claim about ‘the university’ as he is making about ‘team-spirit’. Each expresses a way something

else is (the way the buildings are organized, and the way cricket is played). In neither case is there numeric identity, but in neither case is the way to be enumerated as an additional thing on the (same) list. So Ryle is not claiming the university is identical to the buildings, just as he is not claiming that team-spirit is identical to the positions. He is instead claiming that *n* things (buildings or tasks) and something else (a way those buildings are, a way those tasks are performed) cannot be summed in a single tally- despite their nonidentity. (And if we construe the division as the way the battalions are organized then the same goes for each of the three primary examples.)

One might suspect, however, that *I* am making the mistake of thinking that *ways* are “things”, or something that one might count, enumerate, or quantify over. But this either reifies ways, or requires an anti-nominalist realism about properties, or both. If ways do not exist as numerically distinct “things”, however, or if ways cannot be counted in the first place, then perhaps the double counting reading is right after all (insofar as the cases involve counting a way as an additional thing when it is not). This reading still fails, however. For one, it would make Ryle hostage to a nominalist metaphysics; Ryle’s view would be subject to refutation by whatever arguments establish the reality of properties. It would also considerably diminish his view’s generality. Many of Ryle’s other examples do not involve “ways” at all, and instead involve entities that are uncontroversially nonidentical (and existing) but that Ryle still refuses to include in a single conjunctive tally. For example, a flood of tears is (obviously) not identical to a sedan-chair, nor is either a way the other is. Yet Ryle still thinks it absurd to say she came home in two things: a flood of tears and a sedan-chair. Another example demonstrates the same point. In a 1945 paper (“Philosophical arguments”), Ryle writes

It may be true that there exists a cathedral in Oxford, a three-engined bomber, and a square number between 9 and 25. But the naïve passage to the conclusion that there are *three*

existents, a building, a brand of aircraft, and a number, soon leads to trouble. The senses of ‘exists’ in which the three subjects are said to exist are different and their logical behaviors different (p. 216, my emphasis).

I will come back to the remarks about existence in the next section. For now note that Ryle does not say one cannot assert ‘there are three things’ because any of a cathedral, bomber, and square number are identical to any other, or because any of these are ways the others are. For still another example, recall Ryle’s denial that one may say she “bought a left-hand glove, a right-hand glove, and a pair of gloves”. A pair of gloves is not a *way* the individual gloves are, presumably, but is instead a whole composed of the individuals as parts.

(According to Thomasson, *Ordinary Objects*, 13–4, the glove/pair of gloves case and also the battalion/division case invoke the part/whole distinction). So Ryle clearly rejects certain conjunctive-cum-quantificational sentences even when the thing/way distinction is not operative, and nonidentity obtains.

We are now well-placed to see why other proposed analyses do not work. According to Thomasson (*Ordinary Objects*, 13),

the reason [Ryle’s pair of gloves and division cases] feel inappropriate seems to be that conjoining items in a list with ‘and’ (especially where this is reinforced with ‘both’ or ‘all’) normally presupposes that the items conjoined are separate and independent, but that presupposition is violated in cases like these. This is closely related to the constraints of the Gricean conversational maxim of brevity (Grice 1989, 27) since, provided the listeners know of the relation between the two clauses, it would be pointless to assert the second once the first has been asserted.

Even if there is a maxim of brevity violation here this does not extend to the other cases.

Sedan-chairs and floods of tears are “separate and independent”, as are a cathedral, a jet plane, and a square number. Still Ryle thinks they cannot be conjoined. Furthermore, note Thomasson’s claim that it would “pointless” to assert that one bought the pair once one has asserted that one bought the individuals. Her argument appeals to analytic entailment:

buying the individuals entails buying the pair, she claims. So it is redundant to assert that

someone bought both, just as it is redundant (and so pointless) to utter ‘he bought a house and a building’- because buying a house entails buying a building (*Objects*, 162). Note, though, that this is in effect a version of the double counting reading: presumably, the house and the building are identical, which is *why* buying a house entails buying a building. If the pair of gloves is supposed to be identical to the individuals, however, then this locates the mistake as saying ‘she bought three things’ when really she bought two. This thought also seems to underlie Magidor’s complaint, cited earlier, that the pair of gloves case is a double counting mistake. To elaborate, Magidor points out that “it would be equally inappropriate to describe buying one left-hand glove by saying ‘I bought a left-hand glove and a left-hand glove’” (*Category Mistakes*, 9 n23). It is true that *this* claim would be inappropriate due to redundancy and/or double counting. But as I have belabored to explain, this complaint simply doesn’t generalize. To do justice to the full range of examples Ryle gives, the double counting reading must be abandoned; Ryle clearly allows for nonidentity yet still claims counting via conjunction may commit a category mistake.¹³

Moreover, neither the double counting nor redundancy/ Gricean readings explain why the glove/pair of gloves case commits a *category* mistake, even if it commits *some* kind of mistake. Saying ‘she bought a house and a building’ may be a mistake in that it violates a maxim of brevity, but there is no reason to think this mistake is a category mistake in

¹³ It is worth adding that the double counting reading would commit Ryle to the controversial metaphysical hypothesis that “composition is identity”, i.e. that a whole is identical to the parts that compose it. Yet many reject this as incoherent on the grounds that it makes no sense to say one thing (a whole) is identical to many things (the parts); surely identity is a one-one relation, not a one-many relation, the thought goes (though see the readings in Cotnoir and Baxter, *Composition as Identity*, for critical discussion). Granted I too ascribe to Ryle some controversial views, but there is no *independent* reason to ascribe composition as identity to Ryle, especially as it does no explanatory work for the cases where Ryle is explicit nonidentity is involved (e.g. team-spirit and university), or those where nonidentity is self-evident (e.g. three-engined bomber and flood of tears/sedan-chair). I assume that a uniform rather than bifurcated account of Ryle’s examples is preferable, and that ascribing underlying metaphysical views is to be done more judiciously.

particular. What does counting too many things, or saying something twice, have to do with being a category mistake? The lack of any evident connection, I believe, is precisely why both Thomasson and Magidor are hesitant to even call the glove/pair of gloves example a category mistake, rather than something Ryle happens to say in the context of talking about (other) category mistakes (Thomasson, *Objects*, 12–13; Magidor, *Category Mistakes*, 9 n23 & n24). My reading, by contrast, can explain why the glove/pair of gloves mistake is a *category* mistake in particular.

So why *is* the mistake a category mistake? This foundational idea can now be spelt out more clearly. We have seen that Ryle thinks conjunction is proper when terms are categorially similar but improper when categorially different (*Concept*, 22). The consequence, according to Ryle, is that conjunctions (including quantified conjunctions) *impute categorial similarity*: a statement which counts by conjoining suggests the counted terms belong to a kind. To say there is a college and a library and a museum and a university suggests these are four of a kind. To say there is a bowler and a catcher and team-spirit suggests these are three of a kind. And so on for each and every example Ryle gives. So the reason these mistakes are *category* mistakes is that such counts falsely—or mistakenly—assign something to a category to which it does not belong. Counting the university as a fourth falsely assigns the university to the same category as the three (buildings). Counting team-spirit as a third falsely assigns team-spirit to the same category as the two (tasks or positions). Counting the bomber, cathedral and square number as three falsely assigns each to the (same) category (viz. existent; more on this summarily). And to say ‘there is a body and a mind’ is to falsely assign bodies and minds to the same category (substance). Simply put: because assigning something to the wrong category is a category mistake, and enumerative claims assign (or impute) categorial similarity to the conjuncts, an enumerative claim commits a category mistake if

something counted differs in category from the others. None of the other readings we have seen allow for anything resembling such a unified explanation of Ryle's entire range of examples, or the principles underlying these examples. This concludes my defense of 2'.

From here the application to Descartes is simple and straightforward. According to Ryle the Cartesian satisfies the above-mentioned schema: she claims there is one of one type (a body) and one of another (a mind) for a total of two. Even granting mind and body are not identical, however, Ryle sees the dualist's conjunction as illegitimate.¹⁴ Hence my 3'. This in turn avoids the problem associated with 4: that Descartes commits a category mistake only if (something like) behaviorism or the identity theory of mind is true. As we can now see, Ryle's 'n and one but not n+1' schema is a highly general claim regarding the logic of conjunction and existential quantification (as well as a background view on the multivocality of 'exists'; more summarily). It is not at all specific to Ryle's philosophy of mind. By this more general standard Descartes might well commit a category mistake even if behaviorism or the identity theory of mind is false.¹⁵ Which is to say, 4' is true.

6. Against enumerating existents

One might still feel Ryle's view that there can be n, and there can be one, but not n+1 is puzzling or unjustified. I will now provide Ryle's justification. This will also provide another layer of explanation for why conjunctions can commit category mistakes in the first

¹⁴ Suppose we follow Ryle in thinking that, roughly speaking, a mind is a way a person behaves (or is disposed to behave). As I have argued, ways can be distinct from what they are ways of without belonging to the same tally as what they are ways of.

¹⁵ This claim might need to be hedged: after all, if the mind were a substance then it would be categorially similar to body (cf. Hofstadter, "Professor Ryle's Category Mistake"). I will actually concede this to some extent. But Ryle's perception of category differences is hardly limited to this case: as we have seen, Ryle also sees category differences between a university and a college, and an individual glove and a pair of gloves. So it is not as if minds and bodies differing categorially is an especially surprising or radical claim, given Ryle's widespread view about the fine-granularity of category differences.

place.

An example which may seem elementary nonetheless contains an important truth. Suppose I have two apples and three oranges. How many do I have (total)? Obviously I do not have five apples, nor do I have five oranges. I do have five pieces of fruit, however. Considered as different kinds of things—apples as opposed to oranges—two of one kind and three of another do not yield five. Considered as members of the *same* kind, however—*fruit*—two and three do yield five. But this is just Ryle's point: category-differences preclude summing or counting, and summing or counting requires categorial similarity (recall Ryle's claim that when terms belong to the same category it is proper to conjoin them but not otherwise).

But that's not all: Ryle's further point, yet to be explored, is that in many cases (he believes) there is no more generic or shared category that would allow a cross-species count or tally (akin to *fruit* allowing a sum of apples and oranges). Consider an oft-quoted passage which appears one page after the gloves example and its comparison to dualism.

It is perfectly proper to say, in one logical tone of voice, that there exist minds and to say, in another logical tone of voice, that there exist bodies. But these expressions do not indicate two different species of existence, for 'existence' is not a generic word like 'coloured' or 'sexed'. They indicate two different senses of 'exist', somewhat as 'rising' has different senses in 'the tide is rising', 'hopes are rising', and 'the average age of death is rising'. A man would be thought to be making a poor joke who said that three things are now rising, namely the tide, hopes and the average age of death. It would be just as good or bad a joke to say that there exist prime numbers and Wednesdays and public opinions and navies; or that there exist both minds and bodies (*Concept*, 23).

Ignore jokes for a moment. Instead, look at the inference from 'the tide is rising', 'hopes are rising', and 'the average age of death is rising' to the conclusion that three things are rising.

Joke or not, Ryle clearly thinks the inference is invalid. Why? The simple answer is Ryle

thinks ‘rising’ is being used equivocally.¹⁶ This is worth spelling out in more detail, however. Suppose we follow Ryle in thinking each instance of ‘rising’ has a different sense, which we signal via indices. The reformulated premises are thus ‘the tide is rising₁’, ‘hopes are rising₂’, and ‘the average age of death is rising₃’. Now, how many things are rising? Clearly it is not the case that three things are rising₁, nor is it the case that three things are rising₂ or rising₃. Three things are rising only if two further conditions are met: that there is some generic sense of rising—call it ‘rising_G’—which subsumes ‘rising₁’, ‘rising₂’, and ‘rising₃’ (as species), and that ‘rising’ (*simpliciter*) is equivalent to, or itself subsumes, ‘rising_G’. Ryle clearly assumes there is no generic ‘rising_G’, however; for Ryle, ‘rising’ is not a “generic word like coloured or sexed”. So it cannot be asserted (as anything but as joke) that three things are rising.

The contrast with “generic words” such as ‘coloured’, or, to use the earlier example, ‘fruit’, is obvious. Two apples and three oranges yields five pieces of fruit, just as two red things and three blue things yield five colored things; a generic subsuming specific differences allows for a uniform sum or tally (across those specific categories). Ryle thinks ‘rising’ is not like this, as we just saw. More important is that Ryle thinks ‘exists’ is like ‘rising’ in this respect, and unlike ‘fruit’ or ‘coloured’ (contra van Inwagen).¹⁷ Represent Ryle’s claim that minds and bodies exist in different “logical tones of voice” as the claim that bodies exist_b but minds exist_m (where ‘exist_b’ and ‘exist_m’ in some sense differ in meaning).

Assuming there exists_b a body and there exists_m a mind, how many are there? Clearly it is not the case that there are_b two, nor is it the case that there are_m two. Suppose there is a more

¹⁶ It is not because of singular/plural disagreement, I might add. Ryle’s criticism applies even if the premises are reformulated as ‘*a* hope is rising, *a* tide is rising, and *the* average age is rising’.

¹⁷ Van Inwagen interprets Ryle’s argument for the multivocality of existence as relying on an analogy between rising and existence, which van Inwagen rejects because existence, unlike rising, is not an activity (“Being, existence, and ontological commitment”, 485–6). I agree that existence is not an activity (and that rising is), but this really has no bearing on Ryle’s claim here (nor the validity of his argument).

generic sense of ‘exists’ that subsumes both, however, i.e. anything that exists_b or exists_m also exists_G. Then ‘there exists_b a body and there exists_m a mind’ would entail ‘there exists_G two things’. But this is precisely what Ryle denies, of course: Ryle claims ‘exists’ is not a generic word encompassing specific differences. So the inference from ‘there exists_b a body and there exists_m a mind’ to ‘there exists two things’ is invalid.

It is this view that ultimately justifies, for Ryle, the claim that I have attributed to him via his many examples: that there can be n things of one category and one of another without this yielding $n+1$, despite nonidentity. Because apples and oranges are kinds of fruit, two apples and three oranges yields five. Because there is no generic sense of ‘rising’ that subsumes rising₁₋₃, however, something can be rising₁, some other thing can be rising₂, and something else can be rising₃ without it being the case that three things are rising. Here is the problem, however. Imagine that one of *thing*, *entity*, or *existent* is a maximally generic category that subsumes all other categories as specifics. (That is, imagine either *thing*, *entity*, or *existent* is the “summum genus”, as the medievals called it). Then no matter the specific category difference everything would count as generically similar to everything else. This would render everything countable in a single tally (*qua* thing or existent), akin to apples and oranges being countable *qua* fruit. (Much the same would apply if the familiar existential quantifier \exists ranges over everything no matter its category, summum genus or no.) But this is precisely why Ryle insists there is no such generic sense of ‘exists’, and that one cannot sensibly enumerate existents *qua* existents (or in any maximally generic or category-neutral sense). As quoted earlier, even though “it may be true that there exists a cathedral in Oxford, a three-engined bomber, and a square number between 9 and 25”, according to Ryle, the “naïve passage to the conclusion that there are *three existents*, a building, a brand of aircraft, and a number” is invalid (“Philosophical arguments”, 216, my emphasis). The same goes for

yet another earlier-quoted claim: that it is absurd to say “that there exist prime numbers and Wednesdays and public opinions and navies” (*Concept*, 23). Despite their nonidentity, despite that none are ways any of the others are, the lack of a summum genus such as *existent* means that category differences preclude counting (existents or things) by quantified conjunction.

At the very least this renders coherent Ryle’s denials that n and one need yield $n+1$. Even so, I will certainly grant there is a genuine philosophical question here about whether Ryle is *right* that ‘exists’ is “multivocal”, such that one cannot enumerate in a single univocal tally what exists.¹⁸ Space forbids a proper philosophical defense of his position, though I provide one elsewhere on Ryle’s behalf.¹⁹ For now it should suffice to point out that Ryle’s view is not some radical outlier, historically speaking. Many other prominent philosophers have argued against category-unrestricted or type-free enumeration that would allow, in effect, for the enumeration of existents *qua* existents. Prior to Ryle Wittgenstein championed this idea in the *Tractatus* (§4.1272), as did Russell (as I will show summarily). After Ryle, Dummett (*Frege: Philosophy of Language*, 566–7, 582–3), Lowe (*Kinds of Being: A Study of Individuation, Identity, and the Logic of Sortal Terms*), Hirsch (*The Concept of Identity*, 38; “Quantifier Variance and realism”), Sidelle (“Rigidity, Ontology and Semantic Structure”, 423) and Thomasson (*Ordinary Objects*) each reject counting via putative maximally general categories such as *thing*, *object*, or *entity*; each argues existential enumeration requires a specific categorial restriction. Or, as Thomasson succinctly puts it, “counting claims presuppose a category” (*Objects*, 111), and putative maximally general categories such as *entity* or *thing* do not count. So Ryle is hardly alone in denying the possibility of enumerating existents in a maximally

¹⁸ Etymologically, ‘multivocal’ means “many voices”. Ryle’s idea that existence is said in different “logical tones of voice” quite literally suggests ‘exists’ is multivocal rather than univocal (said in “one voice”).

¹⁹ See “Category mistakes, ontological pluralism, and the number of things”.

generic, category-neutral, or category-unrestricted manner.²⁰

7. Ryle and Russell on category and type differences

One last difficulty remains. Earlier I mentioned that one may find Ryle's judgment of category differences puzzling (this was background thesis 5 from the outset). As we have seen, Ryle believes universities and colleges differ in kind, as do individual gloves and pairs of gloves. Certainly Ryle's notion of categorial difference has been criticized before. For example, J.J.C. Smart argued that by Ryle's earlier (1938) substitutional criterion for category differences, even beds and chairs would count as categorially different ("and if furniture words do not form a category, we may well ask what do," Smart remarked).²¹ So Ryle not only seems to think that categories come very finely-grained, but they do not seem to correspond to conventional category distinctions either.²²

Nonetheless I will defend Ryle's judgments regarding category distinctions. Some are easier to explain than others. If a way something is is a property of that thing (as Armstrong 2004 argues), whereas the thing (that is some way) is an object or substance, then Ryle's thing/way category distinction is nothing more than the object/property category distinction, which is quite conventional. Along the same lines, if tasks (or activities, or behaviors) are events, then Ryle's task/way category distinction merely invokes the event/property category distinction, which is also conventional. Many other cases can be

²⁰ See also McDaniel ("Ways of being"; "A return to the analogy of being") and Turner ("Ontological pluralism"; "Logic and ontological pluralism"), who defend categorially restricted existential quantifiers as more fundamental (or more "natural") than unrestricted quantifiers.

²¹ In 1938's "Categories" Ryle argued category differences are revealed by failures of substitution; e.g. if 'the number 2' but not 'the chair' can be plugged into '___ is prime', then 'the number 2' and 'the chair' differ categorially. In "A note on categories", Smart points out that 'chair' but not 'bed' can fill in the blank in 'the seat of the ___ is hard', which suggests that by Ryle's criterion, chairs and beds (erroneously) differ in category (p. 227). Worth noting is that the substitutionality criterion is absent from Ryle's discussion in the opening chapter of *Concept*. So its alleged failure need not deter us.

²² Cf. Baker, "Category mistakes".

handled by the abstract/concrete distinction. If square numbers and public opinions are abstract whereas naives are not, for example, then the category difference Ryle appeals to in these cases is grounded.

It must be conceded, however, that Ryle does draw some highly unconventional category distinctions as well. Ryle bans conjunctive-cum-quantificational claims regarding individual gloves and pairs of gloves, as we have seen several times. Another example not yet discussed comes from his 1938 paper. There Ryle claims we are not “entitled by the fact that we can distinguish the two faces of a coin to infer that when I have a coin in my hand I have three things in my hand, the coin and its two faces” (“Categories”, 174). These seem to invoke the part/whole distinction rather than, say, the object/property or abstract/concrete distinction. (And as indicated, Thomasson construes the battalion/division as a part/whole relation as well- so that makes three). Yet the part/whole distinction does not seem to mark a category distinction per se (insofar as both parts and wholes may be material objects, for example).

Yet even this aspect of Ryle’s view is principled. The best way to understand it is via Russell’s theory of types. During his lectures on logical atomism in 1918, Russell argued for a retroactively Rylean sounding thesis. According to Russell,

The sense in which there are classes is a different one from the sense in which there are particulars, because if the senses of the two were exactly the same, a world in which there are three particulars and therefore eight classes would be a world in which there are at least eleven things. As the Chinese philosopher pointed out long ago, a dun cow and a bay horse make three things: separately they are each one, and taken together they are another, and therefore three (*The Philosophy of Logical Atomism*, 130–1).

The similarities to Ryle’s view are striking. Like Ryle, Russell claims that different senses of ‘exist’ apply to different types of entities, and that applying the same sense of ‘exist’ to different types of entities would result in an absurd count or tally; that three particulars and eight classes yields eleven things, or that the dun cow, the bay horse, and the pair make

three is “nonsense” (*Logical Atomism*, 136). So like Ryle, Russell effects a ban on cross-type conjunction-cum-quantification.

It was of course the famous set-theoretic paradoxes that led Russell to this view. Because treating classes as (capable of being) members of themselves leads to paradox, Russell argued that sentences asserting or denying self-membership are ill-formed (*Logical Atomism*, 132). This in turn implies that “a class consisting of two particulars is not itself.. a fresh particular”, according to Russell- for otherwise, *qua* particular, a class (of two) could be a member of itself (and so counted as a third; *Logical Atomism*, 132). Hence the type difference between class and particular, which requires different quantifiers (with different meanings) to range over each. Letting ‘there are_p’ range over particulars and ‘there are_c’ range over classes, even if there are_p three particulars and there are_c eight classes, ‘there are 11 things’ (here) comes out as ill-formed because no one quantifier ranges over both types. For Russell more generally cross-type conjunction-cum-quantification is ruled out as ill-formed.

Of course these (Rylean-sounding) insights are the core of Russell’s famous “theory of types”.²³ *Particular* and *class* are not the only types Russell recognizes, however. For the same reasons that classes differ in type from particulars, classes of classes differ in type from classes, and classes of classes of classes differ in type from classes of classes, and so on. Or as it is commonly rendered, particulars belong to type 0, classes of particulars belong to type 1, classes of classes of particulars belong to type 2, etc. Because no one quantifier ranges over different types, on Russell’s theory distinct restricted quantifiers $\exists_0, \exists_1, \exists_2, \dots, \exists_n$ are required to make existential claims of types 0, 1, 2... n, where n can be arbitrarily large due

²³ See also Russell’s “Appendix B: the Doctrine of Types” in 1903’s *Principles of Mathematics*, and 1919’s *Introduction to Mathematical Philosophy*, esp. chapters 13 and 17.

to the iterative nature of the set-theoretic hierarchy.²⁴ Notice that this makes types quite numerous as well quite finely-grained. Now, I will grant the following is not something Ryle himself said, but the posit makes sense of what Ryle does say. Suppose we take Russell's type theory (regarding the membership relation) and apply (or extend) it to the part/whole relation. Partless entities—mereological atoms or simples—would be type 0, wholes consisting of simples would be type 1, wholes consisting of wholes consisting of simples would be type 2, and so on. The result would be that parts and wholes differ in (logical) type, just as for Russell, members and classes differ in (logical) type. So individual gloves and a pair of gloves standing in the part/whole relation would also differ in (logical) type. As would a battery and a division, and the faces of a coin and a coin. Just as Ryle claims.

This interpretation is not a mere flight of fancy. In fact, Russell himself arrived at the extensionally equivalent view. In the same lectures on logical atomism, Russell argues that what common-sense takes to be concrete particulars, such as Socrates and Piccadilly, ought instead to be identified with classes, or series of classes (of ultimately logical atoms; *Logical Atomism*, 56–62). So what we would normally think of as the *parts* of Socrates and Piccadilly turn out to be, for Russell, *classes* of a lower-level type than Socrates and Piccadilly themselves. Of course the same would go for the common-sense objects Ryle cites. A pair of gloves, on Russell's 1918 analysis, would be identified with the class whose members are the individual gloves, which would in turn be identified with classes whose members are e.g. threads of cotton (which would in turn consist of further classes of classes, all the way down to logical atoms). Letting the pair of gloves be a class of type n such that \exists_n ranges over the pair, and letting the individual gloves be classes of type $n-1$ such that \exists_{n-1} ranges over the

²⁴ Russell did not actually use type-indices, but instead relied on context to resolve the “typical ambiguity” of \exists . For type-indexed formulations, see Copi, *The Theory of Logical Types*, and Linsky, *Russell's Metaphysical Logic*.

individuals, we derive Ryle's result: even if there are_{n-1} two individual gloves (that she bought) and there is_n a pair of gloves (that she bought), it is not the case that there are three (things that she bought)- even if the pair and the individuals are not identical. Of course the same goes for the battalions/division and the faces/coin examples, *mutatis mutandis*. So by identifying what appears to be concrete objects as classes (as Russell in fact does), or instead by extending Russell's type-theory from set theory to mereology (as Ryle implicitly does), we get the same result: there are type-bans on conjoining and thereby enumerating exactly what Ryle says we cannot conjoin and thereby enumerate.^{25,26}

It must be conceded, however, that Russell's *types* do not neatly correspond to colloquial *categories* (such as *furniture*) or to ontological *categories* (such as *substance*).²⁷ So Russell's type-theory is not a traditional category-theory. If Russell's type-differences do track category differences, however, then obviously this would make sense of Ryle's claim that e.g. gloves and pairs of gloves differ in category. Insofar as Ryle does not (self-consciously) apply Russell's type theory to mereology and given that Ryle often uses 'category' and 'logical type' interchangeably, however, it is likely that Ryle is simply conflating

²⁵ According to Magidor, although Ryle analyzes the glove/pair of gloves case as an illegitimate "mix of types", this analysis is "clearly wrong" (*Category Mistakes*, 9 n23). Her argument is that "it would be perfectly appropriate to describe buying three gloves two of which were left-handed by saying 'I bought a pair of gloves and a left-hand glove'". We can now see why Magidor's argument misses the mark: if the gloves (and pairs of gloves) in question are independent, such that none stand in the part/whole relation, then these gloves would *not* belong to different Russell-types, and so would in fact be three. Far from misclassifying Magidor's alternate glove example as a category mistake (or a double counting problem), my Russelian-inspired account of Ryle is well-placed to explain exactly why it is not.

²⁶ It may be noticed that many debates in contemporary metaphysics—especially the puzzles regarding the existence of mereological composites in addition to mereological simples, or the coincidence of statues and lumps of clay—just are debates over whether there are *n* parts *and* a whole, for a total of *n*+1 things. Elsewhere I argue on the basis of Ryle's claims that these debates rest on a category mistake, and so cannot be resolved ("Category mistakes and meta-ontology"). I should note that Thomasson (*Ordinary Objects; Ontology Made Easy*) also attempts to deflate these debates, though my arguments differ from hers due to my differing conception of Ryle, as developed here.

²⁷ Interestingly, Ryle makes a similar point regarding Kant ("Categories", 199). See also Glock, "Nothing categorical on categories".

Russellian (logical) type differences with category differences in the more conventional sense of the term. I am not sure I see a way around this reading on Ryle's behalf. But as a historical question, I believe the matter settled. As we have just seen, Russell's type-theory banned cross-type conjunctive-cum-quantificational statements, where for Russell types are sufficiently fine-grained to count even gloves and pairs of gloves as different (if need be). Note too that Ryle's formative years as a philosopher coincided in time and place (1920's Oxbridge) with the apex of the popularity of logical atomism and type-theory. So it is well-nigh impossible for Ryle's eventual thinking on conjunctive-cum-quantificational category mistakes, including their fine-granularity, not to have been significantly influenced by Russell's precedent.²⁸

8. Conclusion

In the first chapter of *The Concept of Mind*, Ryle gives seven illustrations of category mistakes, or at least illegitimate conjunctions: these are the university, division, team-spirit, British constitution, average taxpayer, sedan-chair, and pair of gloves examples. (Eight if we count the Cartesian claim.) I have argued that each and every one of these cases (including the Cartesian) fits exactly the same pattern: they are all mistakes of conjunction-cum-quantification, and all plug into the schema 'there are n of one category and one of another for a total of $n+1$ '. By contrast, other accounts either give different explanations for the different cases, or deny that some of Ryle's illustrations are category mistakes because they do not fit the proposed explanatory model. I have also shown that Ryle's view can be

²⁸ Dancy ("Ryle and Strawson on category mistakes", 9) agrees that Russell was "clearly" the source of some of Ryle's ideas on categories. For Ryle's debt to Russell in his own words (including a brief discussion of the legacy of Russell's type-theory), see "Bertrand Russell 1872–1970", which Ryle presented to the Aristotelian Society shortly after Russell's death. I thank an anonymous referee for the *Journal of the History of Philosophy* for providing this reference.

understood as an extension of Russell's theory of types, as well as explained Ryle's famous accusation against Descartes as an application of his more general (and prior) principles regarding the categorial constraints on quantification: succinctly, the Cartesian mistake fills in the faulty 'n and one so n+1' schema by saying 'there is a mind and a body for a total of two'. With this demonstrated I hope to have dispelled whatever mystery remains regarding Ryle's most famous view, and to have helped anyone assigning Ryle with how to answer their study questions.

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