

Internal, formal and thin relations

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Introduction

In one of his most thought-provoking and illuminating contributions to the metaphysical study of relations (“Relations - through thick and thin”, *Erkenntnis*, 1998, 325-353), Kevin Mulligan points to the existence of what he initially describes as an “intuitive” difference between such relational predications as “Sam exemplifies happiness”, “3 is greater than 2”, or “orange is between red and yellow”, on the one hand, and “Sam loves Mary”, “Mary hits Sam”, or (my own favourite example) “Lausanne is north of Geneva” on the other hand. He then suggests that there might well be a similar difference – a difference in ontological status, one would *a priori* expect – between the truthmakers for both kinds of statements, or propositions, and makes a compelling case, at any rate, for the philosophical importance of this rather broad distinction. Moreover, while he cautiously declines to provide any systematic account of what “thin” and “thick” relations”, as he calls them, are “in general”, and while he restricts himself, instead, to drawing a list of the main sub-categories of the two kinds of relations involved, he nonetheless attempts to gloss the thin/thick distinction in terms of several other dichotomies, such as the internal/external, formal/material and topic-neutral/topic-partial divides. However, a major difficulty in this respect is that such predicates as “internal” (resp. “formal”) or “external” (resp. “material”), at least when applied to relations, are notoriously ambiguous, so that it remains pretty unclear in the end how the distinctions in question actually stand to each other.

This paper, actually, should not be read as a piece of scholarship about Mulligan’s paper. It only aims at exploring some possible implications of his thin/thick distinction, as far as the respective ontological status of various categories of so-called “internal” relations is concerned. I hope that he will forgive me for trying to make free use of (part of) his own philosophical material in order to bring some light into the perennial issue of whether some categories of relations, as opposed to some others, should be credited with a lesser right to

ontological citizenship - and, moreover, for doing so from an metaphysical point of view which he is most likely to utterly disagree.

My aim, at all events, is four-fold. First, I propose to briefly revisit the canonical, albeit ambivalent, divide between “ internal ” and “ external ” relations. Secondly, I focus on the metaphysical dispute about so-called “ grounded ” relations, such as resemblance, “ relations of comparison ” and the like. Third, I attempt to unpack a step further the “ thin/thick ” metaphor by examining different, alternative ways in which Mulligan’s most useful distinction might be related to other distinctions in the vicinity. Finally, with the particular case of resemblance and comparative relations in mind, I discuss and try to qualify Mulligan’s - admittedly “ tentative ” - claim that, whereas there are irreducible “ thick ” relational propositions, genuine (or, say, “ thick ”) relations do not feature among their truthmakers.

I - *Internal relations : a longish terminological caveat*

Analytic philosophy, properly speaking, was born a little more than a century ago, when Russell and Moore launched their celebrated attack against the British Idealists and, particularly, against Bradley’s neo-Hegelian brand of metaphysical monism. Russell’s - and, to a lesser degree, Moore’s - main target in this respect was the so-called “ doctrine of internal relations ”. Although Russell’s canonical refutation of what he took to be the logico-linguistic source and backbone of the long prevailing hostility towards relations has now become part and parcel of the basic cultural *bagage* of every analytic philosopher, some doubts have been recently raised as to its true metaphysical import. In addition, more than a hundred years later, and despite the existence of an ever-growing academic literature dedicated to this single subject, it remains somewhat unclear what was meant, on both sides, by an “ internal ” relation.

“ Internal ” and “ external ”, indeed, are no less metaphorical adjectives in this context than “ thin ” and “ thick ” themselves. To go straight to the point, the original idea behind the whole dispute is that an internal relation is one which obtains in virtue of the “ nature ” of its terms. Should we, however, understand the latter term as including in its extension all the “ intrinsic ” properties – whether essential or not – of each relatum at time *t*, or should we, instead, limit ourselves to those, among its (monadic or relational) properties which may be taken as part of its very “ essence ” in the strictest sense of the word? At any rate, we are left with two main possible, and quite different readings of the “ internal ” metaphor, one according to which an internal relation *flows from* (or is entailed by) the nature of the *relata*, as well as quite another interpretation according to which, on the contrary, it is itself responsible for what the *relata* are. For Russell (1924, p. 335), the idealist “axiom” of internal relations meant “ primarily ” that every relational proposition is logically equivalent to one or more subject-predicate propositions. But, elsewhere, Russell takes the axiom to claim that every relation “ is *grounded* in the nature of the related terms ” (1910, p 139). And, in yet other passages, he suggests that the very doctrine he is fighting – or, at least, one of the main (alleged) argument in its favour - is that according to which, given that *a* and *b* are actually related by *R*, necessarily, were *c* and *d* not to be thus related, then (*c*, *b*) could not be identical

with (a, b) , a doctrine which there is indeed every reason to regard as lying at the heart of the British Idealist's view of the matter, and which was to become shortly, at any rate, Wittgenstein's and Moore's influential interpretation of the dogma in question. Russell himself, in fact did not pay much attention to the difference between these two last doctrines, since his own view was that both of them are expressions of "the assumption that every proposition has one subject and one predicate" (*op.cit.*, p. 142) and, in both cases, lead to the conclusion that "there are no relations at all" (*ibid*).

Be that as it may, the fact remains that, by an "internal" relation, you could mean – and that has actually been meant – either a relation which is founded on the genuinely monadic (*i.e.* non-relational) properties of its terms or a relation which is, in some way or other, critical to the identity of a least one of the terms. Now, clearly, the two concepts are not identical, as Moore (1922; see also Campbell, 1990) famously remarked, since the mere fact that a relation is somehow "anchored" in the nature of its terms does not entail that it is essential to any one of them – this depending further on whether the underlying properties belong to the *relata*, themselves, essentially or contingently – and since it is at least conceivable, on the other hand, that a relation might be essential at least to one of its *relata* and, yet, not supervene on any monadic foundation.

Just by crossing, then, these two distinct and independent divides (grounded/ungrounded, essential/contingent), it would seem that we can arrive to a four-fold classification – some kind of "ontological square" applied to relations, as far as the internal/external distinction in its broadest sense is concerned :

- (1) grounded, though contingent, relations (*e.g.* : *Barak Obama being taller than Angela Merkel, my shoes being brighter than yours*)
- (2) grounded essential relations, such as those arguably denoted by the following statements : "Socrates belongs to the same species as Plato", "this proton is more massive than that electron" (an example taken from Simons, 2010)
- (3) essential, while ungrounded (or "directly constitutive"), relations. Putative examples : structural relations among numbers, semantic contents, etc; relations between human *qua* social beings, and so forth.
- (4) external, *i.e.* both ungrounded and contingent, relations (putative examples : spatial distance between ordinary material bodies; temporal relations).

Even though this kind of classification *per force* implies some degree of simplification, I am inclined to think that sub-categories (1) to (3), taken altogether, subsume all the main kinds of relations that the previous century's philosophers had mainly in mind when talking about "internal" relations. Lately, however, a growing number of metaphysicians have been prone to define an internal relation as one that fits above all Moore (or Wittgenstein)'s characterization. According to what I shall call, therefore, the "standard" definition of an internal relation, a given relation $R(a, b)$ is internal if and only if :

(IR) $R(a,b)$ (necessarily, if a and b exist, then $R(a,b)$ exists).

Although it is almost beyond doubt that this definition was originally devised in order to apply primarily to “essential” relations (*i.e.* sub-categories (2) and (3) above), it can easily cover all kinds of internal relations *lato sensu*, provided that a and b are taken with all their suitable properties, at least at some given time (or, to put it in Armstrong’s terms, as “thick” particulars). Yet, as it has become more and more common, these days, to narrow the extension of the phrase “internal relation “ to those relations that *strictly* fall under the “standard definition” given above, and as Mulligan himself, moreover, endorses this definition with, quite plainly, *essential* relations in mind, in the remainder of this paper I shall comply by this restrictive use of the phrase in question as applying, primarily, to relations which hold, of necessity, given the very existence of the *relata*.

A further terminological caveat : in some earlier writings, I also sometimes called grounded-albeit-contingent relations and essential relations (in general), respectively, “weakly internal” and “strongly internal”. Recently, however, Ingvar Johansson has made use of those same expressions, quite differently, in connection with what looks to me as being, roughly, the two main kinds of “essential” relations I just distinguished (*i.e.* grounded essential relations on the one hand, “directly constitutive” relations on the other hand). As I shall be led to refer to Johansson’s own views on these matters - and despite the fact that his (and Mulligan’s as well as others’) terminology have the *prima facie* odd consequence that your brother’s superiority in matter of size over his youngest child should be regarded, by that token, as utterly “external” to the terms of the relation, I shall follow him on this score hereafter for the sake of clarity.

Notice, however, that *IR*, as it stands, does not permit to account for the difference, among internal relations *stricto sensu*, between those which obtain due to some essential monadic properties of their *relata* (and which are thus “ weakly internal ” relations, in Johansson’s terms) and those which are somehow constitutive of their terms (and are, then, “ strongly internal ” relations). Nevertheless, following Johansson’s own suggestion, I take it that the needed distinction made be accounted for by completing the right side of the biconditional *IR* as follows : “ and if a cannot exist if b does not exist, and *vice-versa* ” (*strongly* internal relations), or, on the contrary “ and if a and b can exist independently of each other ” (*weakly* internal relations).

A final remark on this issue of the definition of internal relations, about the possible metaphysical significance of the distinctions I have just made. Grounded relations, be they contingent or essential, are relations which depend upon, and are entailed by, the existence (and that of some of the monadic properties) of their terms. They may be said, thus, to *issue* from the nature of the terms : hence the widespread view, to be discussed below, that they have no being of their own, over and above their monadic foundations. But, with what I call “ directly constitutive ” relations, it might seem to be quite the reverse : the *relata*, this time, depend on the relation itself for their existence, in so far as it is constitutive *of* their very nature. Suppose, for example, that the nature of an entity is entirely determined by its (actual

or potential) relations to other similar entities within the same domain - like integers on some view of arithmetics, or like mental meanings according to some functionalist accounts of intentional content -, so that it might be said, with some plausibility, that the being of the “ entity ” in question is not really distinct from that of the whole network of its actual, as well as virtual, relations taken altogether. In view of the symmetry of identity, are we not led, in both cases, to the same result, *i.e.* to some form or other of relations/*relata* identity theory ? It might well seem so, from a purely formal standpoint. Yet, from a metaphysical point of view, it looks pretty clear to me that, in the former case, we would be inclined to grant first-class ontological status to the *relata* (along with all their relevant monadic properties), while in the latter case, we would award some kind of ontological priority, on the contrary, to the relations themselves. There might well be a fundamental difference, here, in so far as the order of metaphysical *explanation* is concerned, although we might also choose to give priority in both cases- as more or less suggested by Russell himself in his latest writings - to relational “ complexes ” or “ structures ”.

II – Grounded relations, supervenience and truthmaking

Bearing all these formal distinctions and terminological caveats in mind, I now turn to the ontological status of so-called “ grounded ” relations in order to provide a rough outline of the philosophical perspective from which I shall later approach the multifarious relationships between those distinctions and Mulligan’s thin/thick divide

Most philosophers would now agree with Russell that relational propositions or statements are not, as a rule, reducible to non-relational ones. Yet, unlike Russell, many of them take it that *some* classes of relations – including, of course, so-called “ comparative ” relations - are *grounded* in the monadic properties of their *relata*. And they also usually take it that such relations are, for that very reason, no ontic addition to their terms (a view that had been anticipated by those, among the Scholastics, who argued that a “ relative accident ” was not really distinct from its “ absolute ” foundation). Some writers, such as Keith Campbell, have also sought to extend this claim to other categories of relations, which were more traditionally regarded (at least possibly) as external, including causal, spatial and temporal relations. But I shall leave this further issue aside and concentrate, in this paper, on less disputed cases of supervenient relations.

What, then, about the most popular view that grounded relations reduce, so to say to their monadic foundations? Comparative relations (and resemblance) are clearly, indeed, the most *prima facie* obvious candidates for this particular form of deflationist treatment. They both provide something like a paradigm for “ founded ” relations in general and constitute, as it would seem, a domain *par excellence* to which one ought to have a good reason to apply J. Kim’s concept of *strong* supervenience. One might wonder to what extent this really implies that the relations involved are reducible to their monadic foundations. On the face of it, this should not raise any doubt. If Socrates is 1m 80, for instance, and Thaetetus, say, 1m 78, and if this clearly appears to *suffice* to make it true that the former is taller than the latter, does it not seem *prima facie* plausible that the whole reality of the relation *taller than*, as it holds between them, just *consists* in the two men having the respective tallness they actually have ? After all, as Campbell (1990, p. 103) puts it, “ if God makes an island A with so much rock,

soil, etc., as to amount to 20 hectares, and subsequently, an island B of 15 hectares extent, there is *nothing more* needing to be done to make A larger than B ” (*ibid*).

If the truth must be told, I used to accept this claim myself, not so long ago. But I am now inclined to think that it is saddled with difficulties. As I have recently addressed this issue at some length elsewhere (Clementz, 2008 ; Clementz 2012), let me just briefly mention two of them.

A first objection, of course, is that, if the relation *larger than* which obtains between islands A and B (in that order) indeed supervenes upon the respective extent of the two islands, as it certainly does, this is only in virtue of a further relation - a *greater than* relation, say - holding between their extents themselves. Now, a natural suggestion is that, if the extent of A is greater to the extent of B, in the example above, this is only in virtue of the *greater than* relation holding of numbers 20 and 15. Most obviously, then, the friend of reductive foundationism will have to provide appropriate monadic foundations for *this* further relation – but, since those foundations should be such as to account for the asymmetrical character of the relation, she would seem to be faced with the very same sort of endless *regress* that Russell famously objected, in *The Principles of Mathematics* (§§ 213-214 ; see also *Philosophical Essays*, p. 144) to the “ monadistic ” variety of the “ dogma of internal relations ”. In his book *Abstract Particulars* (p 102-103), Campbell tried to meet this objection, but his answer remains somewhat unclear - wavering, as it were, between the claim that the regress, actually, is harmless, and the suggestion that the problem does not even raise from the start (or, at all events, that the regress terminates at a very early step). Campbell first argues that Russell’s regress, while it might be fatal to the kind of reductive (or eliminative) analysis of relational *propositions* that Russell himself had in mind - since it would imply that no relational proposition, or sentence, has a finite specifiable meaning - is actually harmless for his own view, which only holds that grounded relations supervene upon, and thus are nothing over and above, their monadic foundations. In the latter case, Russell’s regress is not of the vicious kind, since “ at each step in the regress, the asymmetric relation between the foundations will become more abstract ”, and since “ regresses of successively more abstract items, even if non-terminating, are harmless ” (pp. 103-104). As for myself, however, I cannot think of any good reason why, just from the fact that some relation R is highly “ abstract ” - whatever this means -, we should draw the conclusion that R does not really exist (or “ subsist ”, or whatever) as a relation. Now Campbell also contends, on the other hand, that the larger size of 20, when compared with 15, ought **to** be attributed to some “ monadic ” characters of these numbers in the end: his idea, now, is that *20 is greater than 15* just means that 20 includes 15 as a sub-set or as a proper part, and that *this* is a *unilateral* relational property, with its foundation in the nature of 20 alone. The reason for this, according to him, is as follows : “ If A has a part B, then *just because B is a part of A*, there is in A (*which includes B*), the sufficient ground for the relation ” (p. 105 ; my emphasis). But this, I contend, is just a question-begging argument as, were we to grant that the relation which the pseudo-monadic predicate “ having x as a proper part ” actually harbours has a foundation in A alone, this foundation is certainly not a (genuine) “ monadic ” predicable : in fact, it is clearly (cf “ *just because B is a part of A* ”) this very relation itself ! Notice, in this regard, that an alternative solution would be to endorse some kind of mathematical structuralism, holding that the nature and identity of any integer are wholly determined by the entire network of all the arithmetical relations it entertains with every other number. But notice also

that relations such as *A is greater than B* would then supervene both on the respective size or volume of *A* and *B*, taken jointly, and on the *greater-than* relation between the magnitudes in question, understood as (directly) *constitutive* of the being of the numbers involved - and thus, arguably, as an *irreducible* relation.

Besides, we should not stick to the only case of relations within the category of quantity strictly speaking. What about those in the category of *quality*, such as relations of contrast or resemblance between colours, for instance? Suppose that this wall is clearer than that one (the former is yellow, say, the latter brown). The asymmetric character of this relation also seems to point towards the asymmetry of the relation between the two colours taken by themselves. Now, it is widely thought that the relation *clearer than* is one among various internal relations between (phenomenal) colours. However, two competing views seem to be on offer. One is that these internal relations depend upon some *non-relational* properties of the colours involved. But then, since we have to account for the asymmetrical nature of the relation *clearer than* anyway, we are left with just two possibilities: either the asymmetry must be considered as an irreducible (emergent rather than properly supervenient) feature, just resulting from the co-instantiation of the non-relational properties in question - which would obviously be bad news for the friend of reductionism- , or we try to account for it by postulating further underlying non-relational properties, on pains of engaging into a likely endless regress. According to the second view, which I would tend to prefer anyway, internal relations between colours are, in fact, at least in part (directly) constitutive of their relata, but, in that case, we are led to roughly the same conclusion as above.

Be that as it may, the main objection, perhaps, to reductive foundationism is that it looks as either as a plain contradiction or as some kind of philosophical “double-talk” (Lowe, 2012) to claim both that grounded relations somehow really “exist” and that they do not enjoy any being of their own. Of course, the objection has to do with the “ontological free-lunch” more generally. As H. Horchberg (2004) puts it: “...In rigorous ontology, nothing is free – if it is a ‘pseudo-entity’, then one should not talk about it or not employ it in one’s analysis”. In view of these difficulties, it should not come as a surprise that quite a few philosophers, lately, among those who believe that either internal relations or relations in general are “ontologically recessive”, have chosen a more radical approach, preferring to argue that such relations, in the end, do not really exist and basing this claim, not upon the supervenience-free lunch strategy, but, rather, upon a more direct appeal to the truthmaking principle. Armstrong himself, of course, already made use of the latter in connection with what he calls “internal” relations, but together with the supervenience strategy, and his conclusion that unveiling the actual truthmakers for grounded relations leads to a “deflationary” view of their ontological status smacks more of reduction than of sheer elimination. The next generation, however, is more radical. By its lights, you should not even say that internal relations “supervene” on their monadic foundations. The end of the matter is that there are *no* internal relations (both in the narrow and in the wide sense of the phrase) fundamentally - to quote Peter Simons (2010), there are just “internally true” relational truthbearers - and, most probably, there are no external relations either.

According to the New Eliminativists, as they we might call them, such a truthbearer as expressed by “Socrates is taller than Thaetetus”, if true, is just made true by Socrates and Thaetetus themselves having the sizes they actually have. There is no need for any additional

“relational truthmaker”, *i.e.* for a further entity (a relational trope, or universal-instance, or state affairs), to account for its truth. But *why* is it so? The idea, it would seem, is that it is just in virtue of the “essence” of the primary terms of the target-relation, *i.e.* of the “essence” of the relevant underlying monadic properties involved on both parts, that this proposition is true. So far so good, but, to push the question a step further, *why* is the mere conjunction of the (monadic) facts that Socrates is 1, 80 meters high and Thaetetus is 1, 78 such as to entail the truth of “Socrates is taller than Thaetetus”? An obvious, though presumably “naive”, answer is that this is simply because Socrates’s size *is* greater than Thaetetus, but it is unlikely that the friends of the truthmaking branch of anti-realism concerning relations will want to hear of this. The stubborn fact remains, nonetheless, that it is indeed hard to understand how these two monadic, supposedly independent, facts could jointly make it true, just by themselves, that Socrates is taller than Thaetetus. Once more, this is not to deny that the mere conjunction of the two monadic states of affairs indeed suffice to entail the truth of our target-proposition. The issue I wish to raise has to do with the real bearing of this plain fact in terms of metaphysical explanation. Of course, it might be objected at this stage that, in metaphysics as elsewhere, explanation has to stop at some place and that we cannot do, anyway, without metaphysical “primitive facts”. This should certainly be agreed, but then why not allow for (genuine) relational truthmakers among primitives metaphysical posits, include so-called “internal” relations among them and duly acknowledge that we are none the worse for it? As remarked by Fraser Macbride, it looks in fact as is the friends of the truthmaking brand of eliminativism have already contracted into the “essence” of the relata all that is actually needed in order for the relevant propositions to be true - or, in other words, as if they had already encapsulated within both Socrates’ and Thaetetus’ actual sizes the ground for making it true that the former is taller than the latter, namely this very relation itself.

This should deserve a much longer discussion, of course. However, my (tentative) conclusion, at this stage, is that grounded relations or at least comparative relations such as *larger than*, *brighter than*, and so forth, cannot be reduced nor eliminated. At best, such relations may be said to supervene both on such properties *and* on some further, more fundamental, irreducible relation holding between those monadic properties. Unless, of course, we should prefer to say that they indeed supervene upon their monadic foundations, but that they do so *in virtue of* an internal relation between the intrinsic properties in question.

However, this does not suffice, yet, to refute the widespread view that comparative and other grounded relations of the kind we have been considering so far enjoy only some form of “second class” reality. What is supposed to be so “special” with grounded relations that they are thus widely viewed as lacking, as it were, full metaphysical weight? Clearly, this should depend on the ontological status of the further relationship the existence and irreducibility of which we just acknowledged.

III - Of some main varieties of thinness

Maybe this is where we could try to make use of Mulligan's distinction between what - borrowing from the lexicon of contemporary moral philosophy - he calls "thin" and "thick" relations. In his brilliant 1998 paper, Mulligan first generalizes the thin/thick distinction to predicates or concepts in general, beginning with monadic predications. Rightly enough, he calls attention to the existence of a difference in nature between such monadic statements as "Sam is happy", "Sam is a man", on the one hand, and "Sam is an object" on the other hand. According to him, there is a no less intuitive difference between such relational predications as "Orange is between red and yellow", "4 is greater than 2", and, by contrast, "Romeo loves Juliet", "Juliet hits Romeo", "Paris is north of Marseille". He then draws a list of "thin" and "thick" relational predicates. While the former could virtually include a quasi-infinity of terms which may, however, be subsumed under a finite number of (sub)categories, the latter is only comprised of a small number of concepts such as *identity*, *resemblance*, *exemplification*, *inherence*, or *dependence*, but also, e.g., the predicate "greater than". If we could immediately infer from the (putative) logical structure of language to the ontological structure of the world, we might as well immediately conclude to the metaphysical ultimate reality of both thin and thick *relations*. However, most metaphysicians nowadays have become wary of this kind of inference, so that the issue remains wide open. As a matter of fact, Mulligan's own claim is that, whenever some truthbearer featuring a thick relational predicate is true, its actual truthmaker just includes, beyond whatever intrinsic properties involved, a *thin* relation. In other words, while there are "irreducibly relational predications involving "thick" concepts" (p. 27) – something we should clearly thank Russell for having established –, there are, *pace* Russell himself, no thick relational entities to serve as truthmakers for them. Rather, "the relevant truthmakers are only thin relations and monadic tropes or properties of their bearers" (*ibid*). More precisely, and as Mulligan himself is a well-known friend of tropes, the truthmaker for such sentences/propositions as "*a* is happier than *b*", "*a* is taller than *b*", "*a* resembles *b*", and so forth – when *a* and *b* are, let us say, two distinct concrete particulars such as Socrates and Simmias – is comprised of Socrates's happiness, of Simmias own particular happiness, as well of a "thin" *greater than* relation between those two monadic tropes (*plus*, as Mulligan conceives of this relation itself as a trope, some dependence relation between the relation and the pair *a* and *b*).

Mulligan's suggestion certainly looks like a much welcome attempt to answer (*inter alia*) the question we have raised about the special ontological status of grounded relations. At first sight, it seems to steer midway between the pre-Russellian view that relations should not feature among the ultimate atoms of being, as they are reducible to monadic properties, and the post-Russellian lazy inference according to which, since polyadic predications cannot be thus paraphrased away, relations themselves – relations in general – are to be counted among the prominent items of what Russell himself called the "basic furniture of the world". Not only does Mulligan (rightly) take for granted the overall soundness of Russell's canonical objections to both "monadistic" and "monistic" purported logico-linguistic reductive analysis of relational statements, but on p. 326, he goes so far as to claim that "there *are*, of course, irreducibly relational entities". Yet, towards the end of his paper, Mulligan considers with evident sympathy the view that the relevant "thin" predications which are supposed to "translate", or account for, the seemingly "thick" ones, have no real relational truthmaker in the end (e.g.: the truthmaker for "*f* is greater than *g*", when *f* and *g* are two monadic tropes, is just *f* & *g*) and is lucid enough to ask whether this is not, eventually, the nearest highway back to the good old Bradleyan view that all relations are internal and, by way of (alleged) consequence, either unreal or, to say the least, metaphysically non-fundamental..

But *what*, anyway, is a “thin” relation? As it is commonly used by moral philosophers, the distinction between “thin” and “thick” moral concepts and/or predicates lies between those which are supposed to refer to such *general* evaluative notions as “good” or “bad”, and, on the other hand, those that are meant to denote more *specific* moral properties, like kindness, honesty, cruelty or selfishness. Now, most examples of “thin” relational concepts would seem to display a high degree of generality indeed. But, surely, Mulligan’s own distinction cannot be as simple as that. While he declines to provide any systematic account of “what thin *versus* thick relations (or concepts) are in general” (p. 327) – preferring, instead, to proceed by way of enumeration –, Mulligan nonetheless endeavours to bring some light into this matter by way of comparison with three other *prima facie* close distinctions in the vicinity: topic-neutral/topic-partial, formal/material, internal/external relations. To begin with, should we characterize thin relations as “topic-neutral”, in Ryle’s sense? Mulligan’s main objection is that there does not seem to be an “absolute” divide among topic-neutral concepts and those that are “partial” to their topic (which, incidentally, seems to indicate that, in his view the distinction between thin and thick relations should be “absolute”, or in other words that it does not allow for various “degrees” of thinness). Admittedly, some thin relational concepts, in particular, would seem to enjoy only limited neutrality: entailment and (non inductive) justification, for instance, “can connect propositions of all types but not tables” (*ibid*), whereas it might be claimed that ontological (existential) dependence relates only temporal items, or that parthood does not apply to abstract entities.

Should we equate thin concepts with *formal* concepts, instead? The problem, this time, is that it is far from clear what such terms as “formal” and “material” are supposed to mean. Mulligan briefly considers three possible readings of the formal/material discussion: formal concepts as applying to what is *not perceptible*, material concepts to what is perceptible; material concepts as standing, unlike formal concepts, in *genus-species* or *determinable-determinate* relations; formal concepts, but not material concepts, as having a *logic*. None of them, in his view, provides an entirely satisfactory gloss of the thin/thick divide.

Finally, then, it looks as if, although the thin-thick distinction clearly overlaps, in part, with both the topic-neutral/topic-partial and the formal/material distinctions, it does not *coincide* with any of them, so that they do not shed that much light upon it in the end. This, however, would not worry too much Mulligan himself, who claims that his view according to which true thick relational sentences have thin relations as their (sole) truthmakers does not require an overall account of the thin/thick divide, but only a satisfactory account of those thin relations that are involved in the development of this view – namely: *identity, resemblance, greater than/less than, dependence, justification*. What really matters, in the end, is that all the thin relations appealed to in this respect are *internal* relations. Indeed, “to say of these relational predicates that their semantic values are thin relations *is to say* that these values are, one and all, internal relations” (my emphasis). But, now, since the remaining thin relations can be construed out of such or such relation(s) in this short-list, it looks as if *all* thin relations are internal. Furthermore, Mulligan appears to hold that external relations (*if*, that is, such relations were to be admitted) would have to be thick. Of course, this, in itself, does not preclude the logical possibility that there also are *thick internal* relations – as remarked by Johansson, who builds on this idea in his recent discussion of Mulligan’s account of those

issues (this volume). Yet, there is some reason to think that Mulligan's own view is that the distinction between thin and thick relations coincide with the internal/external distinction.

So far, so good. Recall, however, that our initial move was to turn towards Mulligan's thin/thick metaphorical distinction, hoping that it might help us to elicit the intuition behind the popular deflationary view of both internal and grounded relations. Since Mulligan clearly endorses the standard definition of an internal relation as one the holding of which is necessitated by the very existence of its terms, it seems that we are, in fact, just taken back to where we started. But this, of course, would be a much too hasty response. Maybe we should rather try to take further advantage of Mulligan's suggestion and explore further the connection between the thin/thick dichotomy and a few other divides he scrutinizes, in order to distinguish between - and compare - different varieties of so-called "internal" relations. This goes especially for the formal/ material distinction. It is rather surprising that, when briefly assaying this most ambiguous philosophical *topos* for philosophers, Mulligan hardly takes into account - except, indirectly, *via* a short quotation from Geach - one of the most common readings, nowadays, of the predicates "formal" and "material". What I have in mind, of course, is the popular interpretation according to which a formal relation is one which applies across all categories of beings (such relations, incidentally, being *really* "topic-neutral"). Formal relations, so understood, would stand to material relations as "transcendental" relations, in the days of Medieval philosophy, stood to "categorical" relations.

Now, it is widely agreed - and, as far as I can see, quite beyond dispute - that formal relations are internal to their terms. One major argument in favour of this view is that internal relations are traditionally considered as not featuring among the genuinely fundamental elements of being. And one most common motive behind such a claim is that it, alone, can block from the start a whole series of ill-famed regressses - such as Russell's famous anti-nominalist regress argument about resemblance, Bradley's regress about relations or, more generally, the so-called "paradox" of exemplification. However, if we do not wish to see this appear as an *ad hoc* solution, or as some form of wishful philosophical thinking, surely we need some *independent* ground for both the view that formal relations are internal and the further conclusion that "formal" relational truths do not require genuinely relational truthmakers.

Let us begin with the former claim. The usual argument, here, is that formal relations fall under the "standard" definition of an internal relation in so far as they obtain in virtue of the *essence* of their relata (or, in more cautious words, that formal truths - including formal *relational* truths - are essential truths). About this, I fully agree: plainly enough, formal relations are essential, and therefore internal, relations. However, I am inclined to think that the topography, hereabout, is slightly more complex, that there are quite different ways in which things might be related in virtue of their "essence", that we can find such differences between formal and non-formal internal relations as well as among formal relations themselves, and finally that these differences directly bear upon the issue whether the various relations in question should be taken with any metaphysical seriousness at all.

So, let us look to it in more detail. There is no doubt whatsoever that formal relations obtain in virtue of the “essence” of their relata. The obvious reason, for example, why it is true that Marilyn Monroe is identical with Norman Jean Baker is that it is, as Lowe (2012) puts it, “of the essence” of Marilyn Monroe to *be* Norman Jean Baker. Or suppose that you do not only subscribe to immanent realism about universals, but that you also accept (*contra* Armstrong) that universals have instances: although this tomato might have been of a different colour (after all, there are also green and yellow tomatoes), it is of the essence of its actual colour, as it stands, to be an instance of redness. (*Exemplification* is a more complicated case, since it is obviously a contingent fact that the tomato itself is the colour it is – even though, given that it actually *is* the colour in question, it is of the essence of its particular colour-instance to be both an instance of the universal *redness* and an individual accident (or mode, or whatever) of *this* particular tomato. To that extent, we might say – still following Lowe – that exemplification is not a *purely* “formal” relation). Or consider existential *dependence*: if *A* ontologically depends on *B*, then, trivially, had *B* not existed, either *A* would not have existed either or it would not be the very entity that it is actually: after all, this all what it means to be ontologically dependent! In this more or less Pickwickian sense, it is clearly “of the essence” of *A* to depend on *B*.

Now, on the face of it, this would seem to justify the view that this sub-category, at least, of “thin” (and therefore internal) relations which is comprised of *formal* relations is ontologically uncommitting indeed – or, in other words, that there are formal relational truths, no doubt, but no formal *relations* in the end. Indeed, it might be held that Marilyn Monroe (or, for that matter, Norman Jean Baker) provides a sufficient truthmaker for the assertion that the first is identical with the second. Or that the particular redness of this tomato suffices to account for the truth of “the colour of this tomato instantiates redness”. One might push this line of thought a step further and claim, with Lowe himself (*op.cit*), that formal truths do not even need any truthmaker whatsoever, since they are essential truths and since essences are not entities, but just what the various entities they are the essence thereof simply *are*.

However, I have already said that the overall issue looks actually somewhat more complicated to me. There are important differences among internal relations themselves in this respect. *Some* formal relations are clearly so “thin”, indeed, that they might be said to be metaphysically “diaphanous”. Although this is of course a much disputed matter, *Identity*, for instance, clearly looks like a pseudo-relation, due to the fact that if “ $A = B$ ” happens to be true, *A* and *B* are not distinct entities. Or consider *instantiation*. Suppose that *a* exemplifies some monadic property *F* and that we have, therefore, the property-instance *p*. It may be purely contingent that *a* exemplifies *F*, but given that it does, *p* exists and, of course, *p* is *essentially* an instance of *F*. However, not only is it *of* the essence of *p* that it instantiates *F* – as it is also part of the essence of *p* to be instantiated by *a*, – but that it is an instance of *F* in fact *is* its very essence (or, say, one “half” of its essence). Now, I take it that we should follow Aristotle, indeed, in thinking that an entity and its essence are not distinct entities (or, equivalently, that essences are not entities) – since, otherwise, a given entity (or “substance”)’s essence would need its own essence-*qua*-entity, and so forth, so that we would have to account, each time, for the relationship between those further entities, on pains of an obvious instance of endless regress. Once more, we do not have two really distinct items which would need to be “related”. This should certainly count as a good reason to refuse to regard both identity and instantiation as being genuine relational entities.

However, I am not sure that the same line of thought could apply to *all* formal relations. Take, for instance, *existential dependence*. To put it in a nutshell: beyond the somewhat peculiar example of the obvious ontological dependence of particularized properties upon their bearers, I concur with Lowe (1998, p. 143), once again, in wondering why the very fact that some given entity depends on some other entity for its existence and identity (or even, for that matter, that they existentially depend upon each other) should entail that they are one and the same metaphysical item. After all, a major example of ontological dependence, within Medieval philosophy, was that of every creature towards God – a “transcendental” relation which most obviously does *not* imply that its *relata* are not, for that reason, what Hume would have called “distinct existences”. But what is supposed to be the ground, then, for excluding existential dependence from the ranks of *genuine* relations, if not the well-known Scholastic dictum that one necessary condition, for any relation, in order to be counted as a “real” relation is that the *relata* should be both real, themselves, and really *distinct*? Could such a drastic claim be defended on the sole basis of the fact – provided it *is* a fact – that a statement like “A ontologically depends on B” does not require any further truthmaker beyond A itself? Or should we content ourselves with the no less popular, but rather vague, suggestion that “formal” properties and relations, in general, are not part of the “alphabet” of the world”, but pertain, so to speak, to its “syntax” – or, in other words, that they do not feature among the ultimate *constituents* of reality but are in part responsible, instead, for its overall ontological *structure*? This is an issue which I shall leave, presently, as homework for the reader.

However that may be, the contrast between “formal” relations (in general), on the one hand, and resemblance or comparative relations on the other hand is no less striking. Mulligan does not claim, of course, that the latter are formal relations. Yet, he includes them within the category of “thin” relations – a category for which he clearly elects formal relationships, at the same time, as some kind of paradigm. Now, the point is not just that comparative relations would seem to lack the high level, or degree, of generality and/or topic-neutrality which seem to be required of thin relations. Rather, the point is that, even though, *e.g.*, *greater than* – taken as a relation between, say, sizes – also hold in virtue of the “essence” of their (immediate) *relata*, it does not do so in any sense which leads one to put them on a par, ontologically speaking, with formal relations, or even to classify them, more generally, among “thin” relations *stricto sensu*. Maybe I should remind my reader, in the first place, of the distinction I made earlier on between two kinds of “essential” (or “internal”, if you wish) relations: those, on the one hand, that just flow from essential *monadic* properties of their terms, and those, on the other hand, that are, so to say, *directly* constitutive of the very identity of their terms. Or remember Johanson’s close, and arguably extensionally equivalent, distinction between “weakly” and “strongly” internal relations. Now, ontological dependence is probably the paradigmatic example of a strongly internal relation. Not only that, of course, since it lies evidently at the very heart of the very notion of a “constitutive” or “strongly internal” relation. By contrast, *resemblance*, along with *greater/lesser than*, are weakly internal relations. For instance, if the colour of this tomato resembles that of your T-shirt, this is certainly an internal relation. Yet, the tomato’s particular redness would have existed even if your T-shirt had been another colour: the relation, while necessitated by the essence of the two properties, is just “weakly internal”.

Another, although closely akin, difference between *some* “thin” relations at least and ordinary grounded relations is as follows. Consider, for instance, such relations as, say, *the size of A is greater than the size of B*. Here again we might say, after all, that it is in virtue “of the essence” of the two sizes that the former is greater than the latter. Maybe we could go so far as to say that it is of the essence of the size of A, for example, to be greater than the size of B (although we should be most cautious on this issue, and although it surely makes more sense if the sizes in question are taken as universal-instances, rather than tropes). But, even so, it is not, this time, as if we were faced with some (pseudo) relation between an entity and its essence: what we have, rather, is a relation, which, in virtue of their essence, obtains between two *prima facie* “distinct existences”.

IV – Back to grounded relations

Armed with these distinctions, we can now return to the topic of ordinary resemblance or comparative relations between concrete particulars. But let us first take stock. Mulligan’s main contention, it will be remembered, is that the actual truthmaker for every “thick” relational predication is but a “thin” relation in the end. Although arguing in full detail in favour of this claim would take me much beyond the scope of the present essay, I am inclined to think that this will not do, at any rate, as far as causal, spatial and temporal relations are concerned. But what, then, about grounded relations, which Mulligan regards as the “easy case”? As a matter of fact, I am quite willing to agree that such propositions as *Socrates is taller than Thaetetus*, or *your socks are the same colour as mine* are true, when true, in virtue of the existence of a thin relation - so long, that is, as by a “thin” relation is meant an *internal* relation. Indeed, it is widely agreed that every “grounded” relation between, say, two concrete individuals *a* and *b* is one that really holds in virtue of some internal relation obtaining between *a*’s and *b*’s relevant monadic properties. However, we just saw that there are, in fact, several varieties of “thin” (or, for that matter, “internal”) relations and, accordingly, both various ways in which a given relation can be said to hold in virtue of the “essence” of the *relata* and thus, in the end, various degrees of (ontological) thinness. Finally, then, it is far from obvious, to say the least, that *all* so-called “internal” relational truths are true in virtue of the occurrence of a “thin” relation as Mulligan himself would seem to understand this term (after all, there might as well be, as Johansson puts it, “thick internal relations”). And it is still less obvious that the predications in question do not need any genuinely relational truthmaker beyond the *relata* and/or some of their monadic properties.

If so, what is supposed to be so particular, then, with grounded relations? In other words, what are we to make of the usual more or less anti-realist view of such relations as *Sam is taller than Sally*, or *Geneva is safer than Los Angeles*, as enjoying no distinctive existence over and above that of their *relata-cum-relevant-monadic-properties* - or, at all events, as not being metaphysically “fundamental”?

As far as I can see, the obvious element of truth behind this “intuition” is that resemblance and comparative relations *do* indeed supervene upon (even though they don’t reduce to) their

monadic foundations. Remember, however, that they actually supervene, according to me, upon the relevant monadic properties *and* upon an irreducible internal relation between those properties (or, alternatively, that they do indeed supervene upon their monadic foundations *because* of a further “internal”, more fundamental, relation between the properties in question). Incidentally, I should think that this a view which may be more easily sustained if you would allow for universal properties (and relations), along with universal-instances, rather than in the context of trope theory. Within the former frame, the internal relation between the underlying monadic property-instances may be simply conceived of as the instantiation of a corresponding internal relation between universals. With tropes instead of universal-instances, things might be more complicated, including, it would seem, the very idea that grounded relations obtain in virtue of the “nature” of their terms. Tropes, admittedly, are supposed to have, each, a “particular nature”. But tropes – or basic tropes, at least – are also supposed to be “simple”, so that one might suppose that their nature is simple, too. I have some difficulty, therefore, to understand how relations could just flow from their natures, unless they are somehow “retracted to” (as D. Mertz puts it) within those natures from the start.

Be that as it may, what are we supposed to make, then, of the obviously popular view that, even though resemblance and comparative relation do not, strictly, speaking, reduce to their monadic foundations, they nonetheless merely supervene upon those, so that that their own existence ought to be regarded as purely consequential? As a matter of fact, I have just held that their subvenience basis also included an internal relation between those foundations themselves, but this does not, on the face of it, makes things look much better, as it would seem to reinforce the more or less common impression that, by contrast with those relations that appear to *genuinely relate* their terms, comparative relations only somehow pertain to the nature of the relata, so that they might finally seem to hold between the properties involved on both sides rather than between the objects themselves (Kim, 1993, p. 162). One other, more radical, suggestion, would be that the internal relation that is supposed to hold between the relevant properties should not, just *qua* “internal”, be counted, itself, among *genuine* relations.

What are we to make, then, of these two distinct suggestions, beginning with the latter? We saw above that there are two principal ways in which a relation – and this goes as well for “second-order” relations between properties as such – could be “internal” to its terms. A relation between, say, properties *F* and *G* can be said to be “internal” *lato sensu* if its “flows from” the nature of its terms, either by supervening upon some second order monadic of *F* and *G*, or else due to some mysterious “primitive” relationship with the very exemplification of these properties. One other possibility is that the relation should be, absent any monadic foundations, at least in part (and, thus, directly) *constitutive of* the identity of the relata. Notice that only in the latter case the relation deserves to be regarded as a “strongly internal” (in Johansson’s sense), *i.e.*, as such as their terms could not exist independently from each other.

Now, one might indeed wonder whether constitutive relations are *genuinely relational*, in so far, at least, as we take it to be a necessary condition for a relation, once again, to be a “genuine (or “real”) one that it holds of two both real and *really distinct* relata. Actually, this is another place where our intuitions might diverge. On the one hand, as suggested above, one might be inclined to consider that such “internal” relations, far from reducing to their

terms, enjoy on the contrary some kind of ontological priority over them. On the other hand, it has been often argued that, since they make their relata intimately depend of each other, they should be counted among pseudo-relations. It should be remembered at this stage that its far from obvious that existential dependence, generally speaking, is not a « genuine relation ». Perhaps, then, we should say, in the light of Hume's "distinct existences" principle, that there are no necessary connections holding either of concrete individuals or of their particularized properties. However, my guess is that there well might subsist such internal relations between universals - or, at any rate, among more or less abstract entities. But, even so, I fail to see any *prima facie* compelling reason why we ought regard them as just pseudo-relations. Just considering these two examples, it seems to me that the mere fact that phenomenal colours are plausibly interconnected by "internal" relations, or that the very essence of natural integers is, for the most part, a function from their arithmetic interrelations, does not stop red from being quite a different colour from yellow, or 8 and 24, for instance, from being two really distinct numbers. But, even if I were to be wrong on this score, what matters is that, if concrete particulars *A* and *B* are such that the former is taller (or clearer) than the latter in virtue of their respective size (or colour), *this* is, most often, a purely contingent fact, so that the relation appears to hold, this time, between to really distinct entities : there is no reason, at least in this respect, to maintain that its does not "really", or genuinely, relate its terms.

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