

# On Doing Without Relations

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Kevin Mulligan defends the view that there are relations but that all relations are internal relations. There are, according to him, no external relations, but only internal relations. He argues that true predications of external relations between things are made true by internal relations between tropes of these things. I think that he is right in claiming that one can do without external relations. Can one perhaps even do without any relations at all – even without internal relations? In what follows I shall first give further support to the thesis that there are no external relations by discussing the case of comparative statements. Then, I shall try to make sense of the notion of an internal relation and I shall suggest that internal relations are not really something over and above the terms of

the relation.

The defender of external relations claims that a statement like 'This stone  $a$  is heavier than that stone  $b$ ' is made true by an entity which is best described as  $a$ 's *being heavier than  $b$* . The external relation between  $a$  and  $b$  is supposed to be an entity which is borne by  $a$  as well as by  $b$ . According to this view, we get the following picture of our case with the two stones one of which is heavier than the other: There are these two things, stone  $a$  and stone  $b$ . Stone  $a$  has mass-trope  $\alpha$  and stone  $b$  has mass-trope  $\beta$ . According to the view that is criticised by Kevin Mulligan there is additionally a relational trope  $\rho(a,b)$ , which is borne by the things  $a$  and  $b$ . This relational trope is considered to be the truthmaker of 'This stone  $a$  is heavier than that stone  $b$ '. To support Kevin Mulligan's claim that this approach is wrong I shall point out two weaknesses of this view.

First, we may be suspicious about entities which are borne by more than one thing. Is it the set, or the group, or the sum of the related things of which the relation is an accident? Or is each of the related things in the full sense bearer of the relation? I think that there is a vague intuition which leads to suspicion about relations, and I shall try to spell it out more clearly. For this I introduce a certain notion of ontological dependence which includes both rigid and generic dependence: Let us say that an entity  $x$  depends on an entity  $y$  if  $x$  cannot exist except by coexisting with  $y$  in a single whole or coexisting with another entity, which is a member of a certain class of entities which includes  $y$ . (Cf. Roman Ingarden, *Der Streit um die Existenz der Welt I*, § 14) I consider (monadic) a trope to be dependent in this sense upon the thing of which it is a trope (that is, according to an ontology without substrata, it is dependent on the other tropes of the thing). That means that I believe that there cannot be free-floating single tropes, such as a single mass trope which does not coexist with certain other tropes (a density, a charge etc.). Furthermore, I think there are good reasons to believe that a thing is dependent on each

of its tropes, that is, no trope can be removed from a thing if it is not replaced by another trope of an appropriate kind. The mass-trope of a certain stone, for instance, can only be removed from the stone if it is replaced by another mass trope. Every trope of a thing is needed by the thing. This is the reason why one does not need any binding entities or any glue to hold the tropes of a thing together. The tropes of a thing exist together because they are mutually dependent on each other. However, relational tropes would not behave like that. The problem with them is not mainly that they depend on more than one thing, but rather that the things which are related by them depend in no way on them. In this sense relational tropes are not required by anything. Therefore, it seems advisable to try to do without relational tropes.

Moreover, secondly, the view that 'This stone  $a$  is heavier than that stone  $b$ ' is made true by the relational entity  $\rho(a,b)$  leaves it totally obscure what  $\rho(a,b)$  has to do with the masses of  $a$  and  $b$ . If  $a$ 's being heavier than  $b$  consists in  $a$ 's and  $b$ 's bearing together the entity  $\rho(a,b)$  then the mass-tropes  $\alpha$  and  $\beta$  seem to contribute nothing to the truth of 'This stone  $a$  is heavier than that stone  $b$ '. But we would like to say that  $a$  is heavier than  $b$  *because*  $a$  has mass  $\alpha$  and  $b$  has mass  $\beta$ . However, it will be difficult to construe a connection between  $\alpha$  and  $\beta$  and  $\rho(a,b)$  if one assumes – as the defender of external relations does – that they are distinct entities. Therefore, I think, Kevin Mulligan is right in claiming that there are no external relations. I assume that relations between things always obtain *because* the things in question have certain (monadic) properties. But how is it to be explained that a relation obtains because the related things have certain properties? Kevin Mulligan suggests that a relation between things – i.e. an external relation – obtains *because* a certain *internal* relation between properties of these things obtains. 'This stone  $a$  is heavier than that stone  $b$ ' is made true by an internal relation between the mass tropes  $\alpha$  and  $\beta$ .

Which internal relation between  $a$  and  $b$  is it that makes the sentence true? Kevin Mulligan suggests that it is the relation of *being greater than* holding between  $\alpha$  and  $\beta$ . 'This stone  $a$  is heavier than that stone  $b$ ' is made true by the internal relation of *being greater than* holding between the mass-trope  $\alpha$  and the mass-trope  $\beta$  and the fact that  $a$  has  $\alpha$  and  $b$  has  $\beta$ . Mulligan argues that the relation of *being heavier than* holding between the two stones can be constructed out of the relation of *being greater than* and the two mass-tropes of the stones.

However, we still don't seem to have reached the ontological bedrock yet. The basic relation holding between tropes is the (internal) relation of *resemblance*, and I suggest that the relation of *being greater than* holding between tropes can be constructed out of the resemblances between the tropes. The mass-trope of stone  $a$  resembles the mass-trope of stone  $b$  to a certain degree. Let us assume that  $a$  has a mass of 4 kilograms and  $b$  has a mass of 3 kilograms. The 4-kilogram-trope resembles any 3-kilogram-trope to a higher degree than it resembles any 2-kilogram-trope. Any 2-kilogram-trope resembles the 3-kilogram-trope to a higher degree than it resembles the 4-kilogram-trope. These resemblances amongst the mass-tropes are the basis of the *order* of masses. Every mass-trope resembles every other mass-trope to a certain degree so that the mass-tropes form a spectrum. The mass-trope of  $a$  'is greater than' the mass-trope of  $b$  because of their relative positions on the resemblance-spectrum of masses. The relation of *being greater than* between the mass-trope of  $a$  and the mass-trope of  $b$  obtains because these tropes are such that they resemble certain other mass-tropes to a certain degree.

Is resemblance between tropes an internal relation? A relation between  $x$  and  $y$  is an internal relation just if the relation *must* obtain if  $x$  and  $y$  exist. Internal relations are relations whose obtaining depends wholly on the nature of the related entities; they supervene on the terms of the relation. External relations, on the other hand, are relations into which entities can enter and which can cease to obtain whilst the related entities continue to

exist. Accordingly, resemblance between tropes is an internal relation, because it is impossible that the tropes should exist without the resemblance obtaining between them. The resemblance between tropes wholly depends on how and what the tropes are. It is not a relation into which the tropes could enter or which could cease to exist while the tropes still exist.

The question I want to address finally is whether internal relations between tropes are 'irreducibly relational entities', as Kevin Mulligan claims. I shall mention two reasons why one may be suspicious about the existence of such relational entities. First, it is difficult to see how these relational tropes would fit into a trope ontology as it is defended by Kevin Mulligan. According to trope ontology things are complexes of tropes. But what sense can be made of the claim that there are tropes which relate tropes? How should these relational tropes be linked to the tropes they relate? The only linkage I can think of between a trope and the entity of which it is a trope is mutual dependence. It is by mutual dependence, I think, that tropes are linked with the things of which they are tropes. (Where in most cases a trope is considered to be *rigidly* dependent on the thing, whilst the thing is *generically* dependent on the trope.) I have already pointed out above that no account of the linkage between relational tropes that relate things and the things in question is available. Tropes that relate tropes face the same problem. If  $\alpha$  is a trope of a thing  $a$ , and  $\beta$  is a trope of a thing  $b$ , and  $\rho$  is a trope which relates  $\alpha$  and  $\beta$ ,  $\rho$  would be dependent on  $\alpha$  and  $\beta$ . It could not exist if  $\alpha$  or  $\beta$  did not exist. But neither  $\alpha$  nor  $\beta$  would be dependent on  $\rho$ , because  $\alpha$  could exist without  $\rho$  (if  $\beta$  did not exist) and  $\beta$  could exist without  $\rho$  (if  $\alpha$  did not exist). And neither  $a$  nor  $b$  would be dependent on  $\rho$ . So what should hold  $\rho$  and  $\alpha$  and  $\beta$  together?

Secondly, the fact that internal relations are such that they *have to* obtain if the related terms exist can be explained by the fact that they are 'not ontologically additional to their terms', as Armstrong (1997, *A World of*

*States of Affairs*, p. 12) puts it. It is just the mass of this stone and the mass of that stone which make it that one of the stones is heavier than the other. It is just because these two mass-tropes are what and how they are that one of them 'is greater than' the other. There is no need to assume – and indeed this assumption would have no explanatory power – that there is an additional entity, an irreducible dyadic trope, which relates the two tropes. The statement 'This stone *a* is heavier than that stone *b*' is made true by an internal relation between the mass-trope of *a* and the mass-trope of *b*. For this statement to be true it is enough that the two stones have the masses they have. As far as I can see we have no reason so far to accept that there are irreducible polyadic properties.