

Problems

Abstract Entities

Being and Becoming

Chance

Coinciding Objects

Compo

Constitu

**The Problem  
of the Many**

Identity

Modality

Necessity or Contingency

Possibility and Actuality

Space an

Universals

Vagueness

Wave

Can Information Philo



## The Problem of the Many

Modern metaphysicians make the problem of *vagueness* the central issue in the Problem of the Many. Vagueness may also be involved in the Sorites paradox.

The *Problem of the Many* may also be a consequence of the significant use of set theory in analytic philosophy along with the view that inanimate “composite objects” are nothing but “simples arranged object-wise,” as PETER VAN INWAGEN has maintained.

Van Inwagen criticized the tendency of metaphysicians to pick out selected “parts” or even just some properties of an object and claim to see another individual, as the Stoic CHRYSIPPUS did in his so-called “Growing Argument.”

Recall that the Skeptics accused the Stoics of putting two entities at the same place and the same time, making us all double. Now this was only because the Stoics distinguished the substance (οὐσίας) or substrate (ὑποκείμενον) from the “peculiarly qualified individual” (ἰδίος ποιόν), much as Aristotle saw a man as a combination of matter and form, body and mind.

Plutarch says if the Stoics add two individual qualifications to one and the same substance, there could also be three or four or more...

“(1) One can hear them [the Stoics], and find them in many works, disagreeing with the Academics and crying that they confuse everything by their ‘indiscernibilities’ and force a single qualified individual to occupy two substances. (2) And yet there is nobody who does not think this and consider that on the contrary it is extraordinary and paradoxical if one dove has not, in the whole of time, been indiscernible from another dove, and bee from bee, wheat-grain from wheat-grain, or fig from proverbial fig. Adding a second individual to the same substance may refer to the puzzle of Dion and Theon?

(3) What really is contrary to our conception is these people’s assertions and pretences to the effect that two peculiarly qualified individuals occupy one substance, and that the same substance which houses one peculiarly qualified individual, on



the arrival of a second, receives and keeps both alike.

For, if two, there will be three, four, five, and untold numbers, belonging to a single substance; and I do not mean in different parts, but all the infinite number of them belonging alike to the whole.”<sup>1</sup>

The *Problem of the Many* is mostly associated with the modern metaphysician PETER UNGER, who named it in 1980, and PETER GEACH, who the same year showed how his metaphysical cat Tibbles could be reimagined as 1,001 numerically distinct cats by plucking each of 1,000 cat hairs.

Losing hairs reminds us of a variation of the Sorites puzzle of the heap of grains of wheat. It asks for the exact moment that a man becomes bald as his last few hairs fall out.

DAVID WIGGINS tells us that Geach’s first version of Tibbles was as a cat that loses just one part, his tail, in an update of the “body-minus” problem of Dion and Theon,

If we remove something inessential (say one water molecule from a cloud, one hair from the second Tibbles, a foot from Dion, a tail from the first Tibbles, a leg from Descartes, or replace one plank in the Ship of Theseus), do we have a new entity, as the Academic Sceptics first argued?

Is there a criterion of parthood that makes some “temporal part” mereologically essential to the identity of the whole?

If we could, that would stop dialectical claims about different sets of the simplest components of a material object that are picked out by a metaphysician to start an argument. Van Inwagen attacks this as the “*Doctrine of Arbitrary Undetached Parts*.”<sup>2</sup>

Unger and van Inwagen independently came up with the extreme opposite position from the Problem of the Many, which became known as “mereological universalism,” the belief in the existence of arbitrary “mereological sums.” Give a set with a large number  $N$  of simple members, the Problem of the Many suggests that the  $N!$  different combinations of those members composes a new object.

1 Plutarch, *Moralia*, Against the Stoics on Common Conceptions 1077c–E, in *The Hellenistic Philosophers*, p.171

2 Van Inwagen (1981) ‘*Doctrine of Arbitrary Undetached Parts*,’ *Pacific Philosophical Quarterly* 62, 123-137



## Peter Unger

In 1980 Peter Unger formulated what he called “The Problem of the Many.” It led Unger to propose that *nothing exists* and that even he did not exist, a position known as *mereological nihilism*.

Today this is the metaphysical problem of material *composition* and of *vagueness*.

In 1999 Unger redescribed the problem in the *Oxford Studies in Metaphysics*

“let us start by considering certain cases of ordinary clouds, clouds like those we sometimes seem to see in the sky.

As often viewed by us from here on the ground, sometimes puffy “picture-postcard” clouds give the appearance of having a nice enough boundary, each white entity sharply surrounded by blue sky. (In marked contrast, there are other times when it’s a wonder that we don’t simply speak singularly of “the cloud in the sky”, where each visible cloudy region runs so messily together with many other cloudy “parts of the sky”.)

But upon closer scrutiny, as may happen sometimes when you’re in an airplane, even the puffiest, cleanest clouds don’t seem to be so nicely bounded. And this closer look seems a more revealing one. For, as science seems clearly to say, our clouds are almost wholly composed of tiny water droplets, and the dispersion of these droplets, in the sky or the atmosphere, is always, in fact, a gradual matter. With pretty much any route out of even a comparatively clean cloud’s center, there is no stark stopping place to be encountered. Rather, anywhere near anything presumed a boundary, there’s only a gradual decrease in the density of droplets fit, more or less, to be constituents of a cloud that’s there.

With that being so, we might see that there are enormously many complexes of droplets, each as fit as any other for being a constituted cloud. Each of the many will be a cloud, we must suppose, if there are even as many as just one constituted cloud where, at first, it surely seemed there was exactly one. For example, consider the two candidates I’ll now describe. Except for two “widely opposing” droplets, one on one side of two overlapping cloudy complexes, way over on the left, say, and



another way over on the right, two candidate clouds may wholly overlap each other, so far as droplets goes. The cited droplet that's on the left is a constituent of just one of the two candidates, not a component of the other; and the one on the right is a component of the other candidate, not the one first mentioned. So each of these two candidate clouds has exactly the same number of constituent droplets. And each might have exactly the same mass, and volume, as the other.”<sup>3</sup>

In his 1990 book *Material Beings*, Peter van Inwagen said Unger's original insight that there are many ways to compose a cloud from innumerable water droplets should be called “*mereological universalism*.” Van Inwagen denies there is any way for simples to compose anything other than themselves, which van Inwagen calls “mereological nihilism.”

### Peter Geach

Geach worked on problems of identity and some time in the early 1960's reformulated Chrysippus's ancient problem of Dion and Theon as “Tibbles, the Cat.”

In 1968, David Wiggins described Geach's first version of Tibbles. Where Theon is identical to Dion except he is missing a foot, we now have a cat named Tibbles and a second cat named Tib who lacks a tail.

In 1980, Geach repurposed his metaphysical cat Tibbles. Geach's second version of Tibbles is widely cited as a discussion of the problem of vagueness or what Peter Unger in the same year called the Problem of the Many.

If a few of Tibbles' hairs are pulled out, do we still have Tibbles, the Cat? Obviously we do. Have we created other cats, now multiple things in the same place at the same time? Obviously not.

Geach argues that removing one of a thousand hairs from Tibbles shows that there are actually 1,001 cats on the mat. He writes:

The fat cat sat on the mat. There was just one cat on the mat. The cat's name was “Tibbles”: “Tibbles” is moreover a name for a cat.—This simple story leads us into difficulties if we assume that Tibbles is a normal cat. For a normal cat has at least 1,000 hairs. Like many empirical concepts, the concept (single) hair is fuzzy

3 Unger (1999) ‘Mental Problems of the Many.’ *Oxford Studies in Metaphysics*, 23, Chapter 8. p.197



at the edges; but it is reasonable to assume that we can identify in Tibbles at least 1,000 of his parts each of which definitely is a single hair. I shall refer to these hairs as  $h_1, h_2, h_3, \dots$  up to  $h_{1,000}$ .<sup>4</sup>

Geach now proposes to pull one of these hairs and thus produce 1,000 cats identified by the missing hair on each one. This is parallel to the case of Dion and Theon, who has lost a leg and Geach's early version of Tibbles and Tib, who has lost a tail. Now Tibbles is losing just a single hair. Geach might have subtracted just a single atom and claim to have produced another unique cat.

Thus each one of the names " $c_1 ; c_2, \dots c_{1,000}$ " or again the name " $c$ ", is a name of a cat; but none of these 1,001 names is a name for a cat, as "Tibbles" is. By virtue of its sense "Tibbles" is a name, not for one and the same thing (in fact, to say that would really be to say nothing at all), but for one and the same cat. This name for a cat has reference, and it names the one and only cat on the mat; but just on that account "Tibbles" names, as a shared name, both  $c$  itself and any of the smaller masses of feline tissue like  $c_{12}$  and  $c_{279}$ ; for all of these are one and the same cat, though not one and the same mass of feline tissue. "Tibbles" is not a name for a mass of feline tissue.

So we recover the truth of the simple story we began with. The price to pay is that we must regard "is the same cat as" as expressing only a certain equivalence relation, not an absolute identity restricted to cats; but this price, I have elsewhere argued, must be paid anyhow, for there is no such absolute identity as logicians have assumed.<sup>5</sup>

As David Wiggins has argued, we only have *relative identity* between two distinct objects. And as we have shown, the only absolute identity is the relation a thing has with itself at each instant of time. So the slightest modification, whether a leg, a tail, a hair, or even a single atom, represents the kind of change that occurs in all material entities over time. Their persistence or endurance is always only a partial or relative identity.

4 Geach (1962) *Reference and Generality*, 3rd edition, p.215.

5 *ibid*, p.216.

