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## Dion and Theon

The puzzle of Dion and Theon was invented by the Stoic philosopher CHRYSIPPUS (c. 280 - 206 BCE). Some philosophers say that we have no clear idea of Chrysippus' purpose, but we can guess from Stoic views on existence and subsistence that Chrysippus was probably contrasting his Stoic view with the Academic Skeptic view of what constitutes "growing."

The Skeptics said entities cannot survive material change. Stoics say that the immaterial, peculiarly qualified individual (ιδίος ποιόν) does survive material change of the individual's body or substrate (ὑποκείμενον).

The only description of Chrysippus' Dion and Theon comes from an opponent, a later Academic Skeptic, Philo of Alexandria (c. 30 BCE.- 45 CE), who is here criticizing the Stoics as claiming two things can be in the same place at the same time.

"(1) Chrysippus, the most distinguished member of their school, in his work *On the Growing* [Argument], creates a freak of the following kind.

(2) Having first established that it is impossible for two peculiarly qualified individuals to occupy the same substance jointly,

(3) he says: 'For the sake of argument, let one individual be thought of as whole-limbed, the other as minus one foot. Let the whole-limbed one be called Dion, the defective one Theon. Then let one of Dion's feet be amputated.

(4) The question arises which one of them has perished, and his [Chrysippus'] claim is that Theon is the stronger candidate.

(5) These are the words of a paradox-monger rather than a speaker of truth. For how can it be that Theon, who has had no part chopped off, has been snatched away, while Dion, whose foot has been amputated, has not perished?

(6) 'Necessarily', says Chrysippus. 'For Dion, the one whose foot has been cut off, has collapsed into the defective substance of Theon. And two peculiarly qualified individuals cannot occupy the same substrate. Therefore it is necessary that Dion remains while Theon has perished'"<sup>1</sup>

<sup>1</sup> Philo, 'On the indestructibility of the world,' in Stoic Ontology, *The Hellenistic Philosophers*, A. Long and D. Sedley, p.171-2



## What Chrysippus May Have Been Doing

In his article “Chrysippus’ Puzzle About Identity,” John Bowin (2003) agrees with David Sedley (1982) that Chrysippus’ argument was a *reductio ad absurdum* of the Skeptical version of the Growing Argument. We can agree and present the *reductio* in seven simple steps:

Two individuals cannot share the same space (Philo’s point 2 about coincident beings)

Theon is another individual sharing a subset of Dion’s space (contradicting point 2)

Dion’s foot is amputated

Note that Dion survives the material loss, by the Stoic version of the Growing Argument

But now Dion and Theon share exactly the same space

This is absurd by the first premise about coincident beings (Philo’s point 6)

Dion survives the material loss, which was Chrysippus’ main point to the Sceptics. Theon has to go. In any case, Theon was only an *arbitrary undetached part* of Dion, with no natural justification. Theon was not a “proper part.” Theon was always just a hypothetical “picking out” of a subset of Dion for dialectical purposes. Theon never did exist as a real object and separate individual.

Sometime in the early 1960’s, PETER GEACH reframed Dion and Theon as *Tibbles, the Cat* and another cat, Tib, without a tail. Geach did not publish this version of Tibbles, but DAVID WIGGINS did in 1968. Wiggins begins with an assertion S\*

“S\*: No two things of the same kind (that is, no two things which satisfy the same sortal or substance concept) can occupy exactly the same volume at exactly the same time.

This, I think, is a sort of necessary truth...

A final test for the soundness of S\* or, if you wish, for Leibniz’ Law, is provided by a puzzle contrived by Geach out of a discussion in William of Sherwood.

A cat called Tibbles loses his tail at time  $t_2$ . But before  $t_2$  somebody had picked out, identified, and distinguished from Tibbles a different and rather peculiar animate entity - namely, Tibbles minus Tibbles’ tail. Let us suppose that he decided to



call this entity “Tib.” Suppose Tibbles was on the mat at time  $t_1$ . Then both Tib and Tibbles were on the mat at  $t_1$ . This does not violate  $S^*$ .

But consider the position from  $t_3$  onward when, something the worse for wear, the cat is sitting on the mat without a tail. Is there one cat or are there two cats there? Tib is certainly sitting there. In a way nothing happened to him at all. But so is Tibbles. For Tibbles lost his tail, survived this experience, and then at  $t_3$  was sitting on the mat. And we agreed that  $Tib \neq Tibbles$ . We can uphold the transitivity of identity, it seems, only if we stick by that decision at  $t_3$  and allow that at  $t_3$  there are two cats on the mat in exactly the same place at exactly the same time. But my adherence to  $S^*$  obliges me to reject this. So I am obliged to find something independently wrong with the way in which the puzzle was set up.

It was set up in such a way that before  $t_2$  Tibbles had a tail as a part and Tib allegedly did not have a tail as a part. If one dislikes this feature (as I do), then one has to ask, “Can one identify and name a part of a cat, insist one is naming just that, and insist that what one is naming is a cat?” This is my argument against the supposition that one can: Does Tib have a tail or not? I mean the question in the ordinary sense of “have,” not in any peculiar sense “have as a part.” For in a way it is precisely the propriety of some other concept of having as a part which is in question.

Surely Tib adjoins and is connected to a tail in the standard way in which cats who have tails are connected with their tails. There is no peculiarity in this case. Otherwise Tibbles himself might not have a tail. Surely any animal which has a tail loses a member or part of itself if its tail is cut off. But then there was no such cat as the cat who at  $t_1$  has no tail as a part of himself. Certainly there was a cat-part which anybody could call “Tib” if they wished. But one cannot define into existence a cat called Tib who had no tail as part of himself at  $t_1$ , if there was no such cat at  $t_1$ . If someone thought he could, then one might ask him (before the cutting at  $t_2$ ), “Is this Tib of yours the same cat as Tibbles or is he a different cat?”<sup>2</sup>

<sup>2</sup> “Wiggins (1968) ‘Being in the same place at the same time,’ 1968, *The Philosophical Review*, p.94



Wiggins sees that “one cannot define into existence a cat” or a cat-part at the same place and time as part of another cat. But the Tibbles version has left out what Chrysippus wanted to achieve with his explanation of growing, that an individual can survive material loss. This was his whole point in cutting off a foot, generally not appreciated by modern accounts.

In their great 1987 compilation of Hellenistic thought, A. A. Long and D. N. Sedley described Tibbles as an example of “two peculiarly qualified individuals coming to occupy one substance,” something the Stoics explicitly denied. Long and Sedley clearly are following Wiggins’ Tibbles, but they suggest that Chrysippus has given us an example of Dion surviving a diminution in his material without losing his identity, as opposed to what the Academic Sceptics claimed.

The key is to recognize this as the ancestor of a puzzle which has featured in recent discussions of place and identity. Take a cat, Tibbles, and assign the name Tib to that portion of her which excludes her tail. Tibbles is a cat with a tail, Tib is a cat without a tail. Then amputate Tibbles’ tail. Tibbles, now tailless, occupies precisely the same space as Tib. Yet they are two distinct cats, because their histories are different. The conclusion is unacceptable, and the philosophical interest lies in pin-pointing the false step.

That Chrysippus’ puzzle works along similar lines is made clear by Philo’s later comments, in which he takes Theon to be related to Dion as part to whole. Dion corresponds to Tibbles, Theon to Tib, and Dion’s foot to Tibbles’ tail. The differences are twofold. First, the problem is about occupying the same substance, not the same place. Second, Chrysippus assumes both the validity of the opening steps of the argument and the truth of the principle that two peculiarly qualified individuals cannot occupy the same substance at the same time. He therefore concludes that one of the two must have perished, and his problem is to see why it should be one rather than the other. Philo’s elliptical summary leaves unclear his reason for selecting Theon for this honour. Probably it is that if we are asked whose foot has been amputated we can only answer, ‘Dion’s’. Theon cannot have lost a foot which he never had.



“The title of Chrysippus’ work shows that this puzzle was developed in connexion with the Growing Argument. But to what purpose? The following is a guess. According to the Growing Argument, matter is the sole principle of individuation, so that a change of matter constitutes a change of identity. Hence Socrates is a different person from the same individual with one extra particle of matter added. Now these two individuals are related as part to whole — just as Theon and Dion in the amputation paradox are related. Thus the paradox’s presupposition that Dion and Theon start out as distinct individuals is not one that Chrysippus need endorse; it is a premise attributed for dialectical purposes to the Academic opponents, who cannot deny it without giving up the Growing Argument. But once they have accepted it, the Growing Argument is doomed anyhow. For whereas the Growing Argument holds that any material diminution constitutes a loss of identity. Chrysippus has presented them with a case, based on their own premises, where material diminution is the necessary condition of enduring identity: it is the diminished Dion who survives, the undiminished Theon who perishes.”<sup>3</sup>

### An Information Philosophy Analysis

The problems of Dion and Theon and Tibbles, the Cat both begin with denying that two objects can coincide and then immediately assuming that two objects are in the same place at the same time.

This is not a puzzle or a paradox. It is a *contradiction* that Chrysippus set up for dialectical purposes. What were his purposes?

1. First, the Stoic view was that a person is a combination of a material substance and what they called the “peculiarly qualified individual,” which is approximately the bundle of qualities that individuates a person. This was essentially the Aristotelian view that a person combines a material body and an *immaterial* mind or soul. It is this soul that persists over time, growing, but not because of the body’s material changes.

2. The Academic Skeptics exaggerated the Stoic position as claiming two things are occupying the same place at the same time.

“. . . since the duality which they say belongs to each body is differentiated in a way unrecognizable by sense-perception. For

3 Long and Sedley (1989) Stoic Ontology, *The Hellenistic Philosophers*, p.175



if a peculiarly qualified thing like Plato is a body, and Plato's substance is a body, and there is no apparent difference between these in shape, colour, size and appearance, but both have equal weight and the same outline, by what definition and mark shall we distinguish them and say that now we are apprehending Plato himself, now the substance of Plato? For if there is some difference, let it be stated and demonstrated.”<sup>4</sup>

3. What the Stoics did claim, following Aristotle, is that the body is substance (something), which exists, plus the mind, which includes some not-things (ideas, information), which merely subsist. As Seneca described it,

“The Stoics want to place above this [existent] yet another, more primary genus... Some Stoics consider ‘something’ the first genus, and I shall add the reason why they do. In nature, they say, some things exist, some do not exist. But nature includes even those which do not exist — things which enter the mind, such as Centaurs, giants, and whatever else falsely formed by thought takes on some image despite lacking substance.”<sup>5</sup>

4. The Skeptics claim that an increase or decrease in material substance means that an entity must cease to exist, based on the analogy with “numerically distinct” numbers. If we add or subtract 1 from the number 6, it becomes a different number, 7 or 5. It ceases to be 6.

5. For example, when we add some more clay to a lump of clay, Stoics believed that the original lump ceases to exist, replaced by a numerically distinct new lump. This is counterintuitive. But modern metaphysicians describe such changes as existential, when they mistakenly assume that material constitution is identity.

6. Note the similar claim of so-called “four-dimensionalists,” who claim that material objects (and even personal identity) do not persist in time, but rather “perdure” as a sequence of distinct “temporal parts,” each a separate object that comes into and goes out of existence in an instant.

7. The Stoics argued that this sort of material change should be called generation (γενέσεις) and destruction (φθοράς), since they transform the thing from what it is into something else. This is the

4 Anonymous Academic treatise, Oxyrhynchus Papyrus 3008 in *Stoic Ontology, The Hellenistic Philosophers*, p.167

5 Seneca, Letters 58.13-15 in *Existence and Subsistence, Stoic Ontology, The Hellenistic Philosophers*, p.162



Heraclitean philosophy of Becoming, that all is in flux, you can't step into the same river twice. If everything is always changing its material, what is to constitute its Parmenidean Being, especially a human being?

8. The Skeptic version of the Growing Argument is that matter is the sole principle of individuation, so that a change of matter constitutes a change of identity.

9. But according to the Stoics, material change is not growing. Something that grows and diminishes must subsist. It must retain its identity over time. Otherwise we cannot say that "it" is growing.

10. For the Stoics, what comes into existence, grows (αύξησεις), then diminishes (φθίσεις) and dies, is the peculiarly qualified individual (ἰδίος ποιόν) that is coincident with a different amount of matter from time to time and that persists over time.

11. Thus material constitution is not identity, individuals are not their material substrate (ὑποκείμενον), but their qualities, which we can see as Aristotle's immaterial form.

12. The Stoics have therefore rejected matter as the principle of individuation.<sup>6</sup>

Information is a better principle of individuation.<sup>7</sup> It supports the relative identity of the persisting individual through time, even as the total information in an individual grows and diminishes.

Abstract information is neither matter nor energy, yet it needs matter for its concrete embodiment and energy for its communication. Information is *immaterial*.

It is the modern spirit, the ghost in the machine.

Immaterial information is perhaps as close as a physical or biological scientist can get to the idea of a soul or spirit that expires at death. When a living being dies, it is the maintenance of biological information that ceases. The matter remains.

6 See chapter 13.

7 See chapter 14.

