HOW TO TEST THE SHIP OF THESEUS

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ABSTRACT

The story of the Ship of Theseus is one of the most venerable conundrums in philosophy. Some philosophers consider it a genuine puzzle. Others deny that it is so. It is, therefore, an open question whether there is or there is not a puzzle in the Ship of Theseus story. So, arguably, it makes sense to test empirically whether people perceive the case as a puzzle. Recently, David Rose, Edouard Machery, Stephen Stich and forty-two other researchers from different countries have undertaken that task. We argue that their tests do not provide any evidence that bears on the question as to whether the Ship of Theseus case is a genuine puzzle. In our discussion we address also what should be taken into account if one wishes to test the puzzling, or not puzzling, status of the Ship of Theseus story.

1.- The test

The story of the Ship of Theseus (SoT, from now on) is one of the most venerable conundrums in philosophy. Some philosophers consider it a genuine puzzle (Scaltsas 1980, p. 152; Wiggins 1980, p. 97). Others deny that it is so (Smart 1972, p. 148; Smart 1973, p. 27). It is, therefore, an open question whether there is or there is not a puzzle in the SoT story, and also whether the case is considered puzzling across different cultures. Recently, David Rose, Edouard Machery, Stephen Stich and forty-two other authors from different countries (RMS from now on) have undertaken the task of conducting empirical tests with a view to provide an answer to that open question.[1]

According to RMS (2020), a puzzle is a thought experiment fulfilling a "provocative function" (p. 6), which they characterize in terms of two conditions: *ambivalence* and *universality*.

1 RMS's study is part of a larger project made possible through the support of a grant from the Fuller Theological Seminary / Thrive Center in concert with the John Templeton Foundation.

The ambivalence condition is stated as follows: “Readers should feel inclined to assert two prima facie inconsistent propositions” (p. 4). As regards universality, RMS point out that a puzzle “. . . must elicit an ambivalent state of mind in readers of all demographic, particularly of all cultural, backgrounds” (p. 4).

The story of the SoT RMS presented to participants in their study is adapted from Rose (2015), and it contains the usual elements in the story: a ship whose planks are gradually replaced through maintenance till no original plank remains (‘Replacement’) and the ship that results from putting together the original planks that were preserved (‘Original Parts’). The story was translated into 17 languages and presented to 2,426 people in 22 countries. The participants in the experiment were asked to read the story and to answer whether, in their view, Replacement or Original Parts was the original ship. Their degree of confidence was also measured.

64% of the participants in the study thought that Replacement was the original ship. However, RMS note that, although there was a sharp majority in favor of Replacement, there was “quite a sizable minority—in the 30%-40% range—who thought that Original Parts was the original ship,” (p.18) a minority that expressed high confidence in their judgment. In any case, regardless of their answer, participants reported, in general, a high level of confidence.[2] Moreover, with slight differences, the disagreement was universal across countries and cultures.

So, RMS conclude: “Our results do indeed suggest that the Ship of Theseus case is a puzzle: People across cultures are ambivalent about what to say in response to the case. But they do not suggest it is one that feels unsolvable or that it is “irreclaimably paradoxical,” placing us in a permanent state of indecision. If this were the case, then we should have found that people were divided on whether Replacement or Original Parts was the Ship of Theseus and that they were not very confident in the option they ultimately settled on. But this is not at all what we found. The majority of sites offered a clear verdict and did so quite confidently” (p. 19).

Ultimately, according to RMS, “the Ship of Theseus is a genuine puzzle but one that people can solve to their satisfaction” (p. 21).

2.- The role of Ambivalence

In our view, the experiment conducted by RMS does not grant any conclusion as regards the puzzling nature of the SoT story. To see this, let us first reflect on two, very different, puzzles: the Liar and the Trolley Problem.

When we are asked whether the sentence “this sentence is false” is true or false, we can soon perceive the circle that leads to contradiction. And when we face the choice of

2 68%-87% for Replacement and 63%-90% for Original Parts (p. 17-18).

either pushing the lever killing the one person or refraining from doing anything (thus letting five people die), both choices seem morally objectionable, in spite of the fact that both courses of action are supported by ethical principles that we rely on in ordinary situations.

Each one of us feels indecision and ambivalence when confronted with these cases: for different reasons in each case, *we simply do not know what to say*. Arguably, the psychological reaction, the indecision and ambivalence that each of us can feel, is not what makes a given case a genuine puzzle, although it is a good indicator of the existence of a puzzle.[3] That is why we think it is worthwhile to test, as RMS set to do, whether people are ambivalent about the story of the SoT.

However, there is an important confusion in their procedure. The principle of ambivalence, as RMS state it, is ambiguous. The claim "readers should feel inclined to assert two prima facie inconsistent propositions" (p. 4) can be understood as requiring interpersonal disagreement (among different readers) or *intrapersonal* conflict or indecision, felt by each reader. Only the latter form of clash is arguably a good indicator of the presence of a puzzle. The paradigmatic cases of philosophical puzzles and conundrums, such as the Liar and the Trolley Problem, do reveal such intrapersonal conflict.

What RMS show is that there is sharp interpersonal disagreement among different readers: 64% of participants thought that Replacement was the original ship whereas 36% thought that Original Parts was the original ship (p. 13). And the disagreement is indeed sharp because in both cases participants were quite confident in their judgment (p. 17-18). But the presence of sharp interpersonal disagreement does not qualify as evidence that we are confronted with a genuine puzzle.[4]

If interpersonal disagreement were the mark of a philosophical puzzle then any disagreement that can generate philosophical discussion would constitute a puzzle. But, in general, studies that show that there is interpersonal disagreement about a subject matter are not presented as studies that reveal the puzzling nature of that subject matter.

For instance, Edouard Machery, Ron Mallon, Shaun Nichols and Stephen Stich (2004) conducted an experiment using Kripke's Gödel case (Kripke 1980). The results of that experiment, they argued, show that East-Asians are inclined to think that the man who proved incompleteness and was found dead in mysterious circumstances is the referent

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3 If we attend to RMS definition of a puzzle as a thought experiment that fulfills a provocative function, it would seem that ambivalence is for them a constitutive condition of a puzzle. We are more cautious, although we do consider that ambivalence is a good indicator.

4 It might be even argued that RMS's results militate against the conclusion that the SoT story constitutes a genuine puzzle, precisely because the participants reveal a high degree of confidence, incompatible with intrapersonal ambivalence (namely, it is not the case that *they do not know what to say*). We will address this issue in section three.

of the name 'Gödel', whereas Westerners were not at all inclined to this response. Subsequently Edouard Machery, Christopher Olivola and Molly DeBlanc (2009) conducted a similar test in different countries that showed divisions within each culture. In each case, the authors did not present their results as providing evidence for the existence of a puzzle. They simply argued that those results constituted proof that substantial segments of the population do not agree with Kripke's intuitions on the Gödel's case.[5]

These two studies purport to show that there is interpersonal disagreement as to who 'Gödel' refers to.[6] And, if the authors do not present the disagreements as a providing evidence for the existence of a puzzle, we think, is precisely because their study is not designed to show intrapersonal disagreement.[7]

The SoT story is often presented as giving rise to a conflict with the transitivity of identity. One feels inclined to say that the SoT is Replacement and also that the SoT is Original Parts, but clearly Original Parts and Replacement are different. In general, showing that some people (perhaps a majority) think that, say, A is B and some other people (a substantial minority) think that A is C does not create any contradiction with the principle of transitivity of identity. Some people think that the author of the bestseller *My Brilliant Friend* (published under the name or nom de plume 'Elena Ferrante') is the contemporary historian Marcella Marmo and some other people think that the author is the writer Domenico Starnone.[8] Both groups have a claim to being right, for there is evidence pointing in both directions. Clearly, Marcella Marmo is not Domenico Starnone, yet no one would conclude that this disagreement threatens the principle of transitivity of identity.

Although these interpersonal disagreements may be part of interesting philosophical discussions they surely do not indicate the existence of puzzles. Likewise, the evidence that RMS collect as regards the story of the SoT is not an indicator of the presence of a puzzle.

Now, the results of RMS test show that people disagree as regards the right answer. Indeed, they show that such disagreement occurs with high levels of confidence and

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5 In fact, the divisions reported by Machery, Olivola and De Blanc in India, Mongolia and France are very similar to those reported in the test of the SoT story. For instance, in Mongolia, 66% lean one way and 34% the other, close to the 64% and 36% reported in the SoT test.

6 There has been a long and lively discussion as to what the studies do show, but the issue is of no relevance for the purposes of this paper.

7 Neither set of authors even ask participants for the degree of confidence in their answers.

8 Many more people are suspected of being Elena Ferrante. See https://www.theguardian.com/books/2014/oct/15/who-italian-novelist-elena-ferrante and https://www.theguardian.com/books/2016/mar/13/who-is-elena-ferrante-novelist-issues-denial-as-guessing-game-goes-on

without indication of intrapersonal conflict. Thus, one might ask: do RMS show (unbeknownst to them) that the SoT story *does not* constitute a genuine puzzle after all? Not so.

3.- The story and its presentation

Let us think what would be a good presentation of the SoT story, the kind that we might easily find discussed in an undergraduate course in Philosophy. Ideally, the discussion proceeds in three steps. First, some story is told that invokes the principle that gradual replacement does not affect the identity of an object. For instance, a wall can have its bricks gradually replaced and still remain the same wall. Second, some other story is told that invokes the principle that disassembling and reassembling an object does not affect its identity. For instance, a watch can be disassembled and reassembled in order to clean it and yet remain the same watch. When the SoT story is then presented, the answers to the previous two stories play a role in leading us to think that both the gradually replaced ship and the reassembled ship have a claim to being the original ship. But that would violate the transitivity of identity.

Pickup (2016) underscores that the three steps are instrumental in highlighting the puzzling character of the SoT story: in a situation in which an object is disassembled and reassembled the identity of the object in question seems unproblematic; a situation in which parts of an object are gradually replaced seems entirely unproblematic too. But then, in a situation that contains the previous two situations as parts, everything goes awry.

If one is to see a puzzle in the SoT story, one has to see that both answers have a claim to being right. The principles that we use in everyday life to identify and reidentify objects lead us to a contradiction with an obvious principle such as the principle of transitivity of identity. As in the Trolley problem, two principles that justify very plausible answers in ordinary cases, produce a conflict.

Asking the question RMS ask without the three step presentation does not highlight that preservation of identity under gradual replacement, and preservation of identity under disassemblage and reassemblage can conflict in situations such as the one described in the SoT story.

Interestingly, it might be argued that it is an open question whether there is a hierarchical order between the principles that govern identification and reidentification of objects. One might even wonder if such a hierarchy would be sensitive to cultural background. Perhaps, one might argue, this is the reason RMS obtain the result that the majority of people are inclined towards a certain answer and with little hesitation. If the SoT story had been tested in the three step way suggested here, and if the results had been the same that RMS get (namely, interpersonal disagreement and high levels of confidence), then it could be argued that there is a hierarchy of principles and that

people disagree as regards which principle is prior. If that were the case, the SoT story would be interesting and challenging, but not a genuine puzzle. Yet, it is important to stress that the way RMS tell the story of the SoT is not useful as a test in that regard either. Testing the presence of a hierarchy requires collecting data about how principles that are used happily in some occasions are overridden in other occasions. Both the happy application of principles and the possible overriding application must be tested, and that would demand testing the story in the step by step way suggested here.

4.- Conclusions

We conclude that RMS's test does not show that the story of the SoT is a puzzle because the data collected are data about interpersonal disagreement which, unlike intrapersonal conflict, are not good indicators of the presence of puzzles.

In fact, the high level of confidence reported by the participants in the experiment might suggest that the story of the SoT constitutes no puzzle at all. However, the story that RMS present is simply not adequate to test the puzzling nature of the SoT.

Hence, the test conducted by RMS has no bearing on the question as to whether the SoT constitutes a genuine philosophical puzzle, and it does not advance in any way the traditional discussion about this venerable story.

Finally, we think that there is a general lesson to be learnt about puzzles and philosophical experiments. A lot of work in experimental philosophy has consisted in highlighting clashes of intuitions between groups of people (cultures, genders, the folk vs. experts…). All these studies rely crucially on the existence of interpersonal disagreement. Testing the presence of a puzzle, instead, should focus on intrapersonal conflict and therefore requires a different methodology.

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