

## Debate: Scientific representation

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**Side A:** Trust the picture: the decision not to drop the bomb was made based on a picture produced by significant technological and scientific expertise, and is therefore trustworthy.

An initial reason to trust the picture is the fact that dropping the bomb will actually accelerate the growth and spread of the alien pathogen, which could inevitability harm us and put is in a worse situation.

**Side B:** Drop the bomb: a scientific and technological picture is not sufficient grounds for making a decision of this magnitude.

An initial reason to doubt the reliability of their progress is the fact that they are indecisive, and they have changed their decision twice. They did not have certainty in their own hypothesis, which lead them to explore different options. This reduces the reliability because it implies that they might still not be definitive if they are correct or not, and the technology or representation they have used was not successful in giving them a correct conclusion initially. This could imply many different faults in the technology and the representation, and without exploring these faults they might not be able to fully validate their results.

It is the first time that they have observed a pattern, or an alien pathogen, like this, and therefore their judgement based on their initial observation on the structure can not be trusted. Myers, in his paper ‘Illustrations in sociobiology’, writes “it is not till the same phenomena repeat themselves in the same, in the same place, a great number of times, that the observer learns to trust these impressions” (Myers, 50). The technology and the knowledge of the scientists is very limited for this scenario, and they do not have the theoretical framework to make a claim to not drop the bomb that could potentially kill millions of people. It is the first time that any of them have seen a pattern as such.

In the scene they observed the pattern once, and make a decisive conclusion based on their one observation. They did not repeat the experiment to validate whether they would see the same kind of multiplication from the alien pathogen or if it always proved the same pattern. Tucker writes, “a photographer must ‘prove his photograph’ by expounding the manner in which it had been made before the image could be admitted as a matter of fact” (Tucker, 379). The photograph in this case is the moment where the duplication occurs. Proof in scientific representation is important, and it is vital to have more data and more observations in order to prove this. They have not repeatedly observed this pattern ‘a great number of times’.

Moreover, they are attempting to use scientific representation and techniques they know to study and observe patterns on items that might not follow the same patterns. Since this is an alien pathogen we can

not conclude and make decisions solely based on the technology we have. Tucker writes, “like photographic practices in meteorology and bacteriology, spirit photography highlighted issues of witnessing, detecting, and deceiving” (Tucker, 402). Similar to spirit photography, this meteorite comes from an area we have not explored in the past or have significant experience in, and the contents of the meteorite are also unknown to us. Utilizing our instruments to help witness and detect what is in that material might not work, and becomes problematic if we trust it completely. The technology was created, tested, and validated to items found on Earth. In the scene they have not validated the use of their technology on these foreign objects. They also can not be completely sure since they have very limited ways of validating their technology against unknown objects.

For the sake of argument we will not drop the bomb, and run more tests to validate if our understanding and the conclusion we made are accurate.

## Works Cited

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