

# PHILOSOPHY AND FUN OF ALGEBRA

## CHAPTER 17: FROM BONDAGE TO FREEDOM

Moses had said, from the first, that the people of Israel would have to think of “I Am” as the deliverer from bondage; but they were not, at the time when he said it, advanced enough in their algebra to understand that idea properly. So he gave them, as an hypothesis to work on for the time being, that “I Am” did not like the people of Israel to eat and drink and smell unwholesome things. He wished to make them attend to their own affairs, and think as little as possible about what was done and thought outside of their own land.

But, after the time of Elijah, there came a change. A higher kind of algebra came into use. Its incarnation was called Isaiah.

The imagination of the Hebrews broke loose from the hypothesis that “I Am” had wishes and likes about the people of Israel different from what was right for all the rest of the world.

When that hypothesis was taken away, the imagination of such people as Isaiah took wings and flew to—well—we do not know where, but we call it Infinity. We know nothing about Infinity; except that it comes when a chain is loosened.

If you want to understand what it was that happened to Isaiah, and what Infinity means in algebra, this is how you can find out. Get a bowl and dip up some of the water out of a barrel in which a gnat has laid her eggs. Little wigglers are born from those eggs. If you watch them you will see that they swim in different positions, some with their tails uppermost, some with their heads uppermost. There may also be some worms, who do not swim much, but wriggle about at the bottom of the bowl. Perhaps if we could hear them talking we should hear them quarrelling about which was the right position. Some of them might be disputing about what would happen to them in the future.

They might quarrel till the end of the world, and know no more about it at the end than at the beginning. They are all tied by the same hypothesis:—that everybody lives under water. It is a very good working hypothesis for them; for if one of them got out of the water it would die. If they knew algebra properly, they would understand that water is only their present working hypothesis, and that it is quite possible there may be people who live out of it. But it is not sure that they do know enough algebra to be aware of their own ignorance.



If you watch them carefully, you will some day see a wiggler come out of the water. He has got wings. The water-hypothesis no longer concerns him. Some link in the chain that bound him down to water has opened; he is set free; Infinity has come to him.

That is what happened to Isaiah when he got out of the kind of Mosaism by which such people as Joshua and Samuel were tied down. That is what will happen to you (if you learn your algebra properly) when you are no longer tied down to  $a$ ,  $b$ ,  $c$ , and  $\sqrt{-1}$ , as the values of  $x$ ; and learn to see that the answer to a problem may sometimes be  $X = \text{Infinity}$ .

Please notice that if a winged gnat fell back into the water he would die. You will find this a good working rule:—Whenever anything comes near your imagination which calls itself either “Infinity” or “The Liberation from Bondage,” go slack for a few minutes; say over the Ten Commandments; and make a mind-picture of the gnat-grub in the water. Tell yourself that his best chance of growing strong wings and being able to fly, when Infinity comes and calls him to go up higher, is to stay in the water till the wings have grown strong and work out the water-hypothesis to its logical conclusion.

Then make another mind-picture:—The gnat who has got wings, and therefore must not try to amuse himself in the water.

Please observe:—There is nothing in this rule contrary to any commandment.

Moreover, there is nothing slavish or degrading in it; nothing in the least like giving up your own liberty, or hampering your own initiative, or being a slave to past ages; nothing which prevents your being up to date and fit for the generation to which you belong.

You are not asked to have any opinions about it; or to think that it is a duty in itself; or to think that you are better than other people because you do it, or that every one is wrong who does not do it. If you do it, it will be for no reason that you know of, except that an old woman who has been trying to amuse you asks you to do it as a token of friendly feeling towards her.

