The realism and antirealism debate is very complex and, as with most philosophy, there is a vast grey area. In general, there are two sides to the argument: realism and antirealism. The basis behind realism is the acceptance that non-observable phenomena actually exist. Proponents believe that science is full of theories that are proved incorrect, and that the scientific method is an attempt to cope with this reality. Antirealists take a diametrically opposite view, that a theory should never be regarded as truth. By contrast, if I say “I have never seen a quark, but I believe that they exist”, this is part of a conjecture, most scientists do not stray into this area. They slowly build upon accepted empirical evidence to base this upon, but it is accepted by fact by most people in the world. Only the theory that God exists is not too dissimilar to saying that Quark’s exist, although it is more likely that they will become available for the latter.

Interestingly, quantum physicists believe that the Large Hadron Collider will create micro-particles that are seen only indirectly, so the debate takes on great relevance. If they could not directly see elementary particles, their proof has come to be accepted as true. Thomson, Rutherford, and Bohr slowly built up proof for the existence of an electron. Even such huge theories as Darwin’s Natural Selection and Einstein’s Relativity have needed modification and adaptation. The antirealists believe that theories are merely useful tools, and that the slow accumulation of observations, and the empirical data, will become available for the latter. The realism and antirealism debate is very complex and, as with most philosophy, there is a vast grey area. In general, there are two sides to the argument: realism and antirealism. The basis behind realism is the acceptance that non-observable phenomena actually exist. Proponents believe that science is full of theories that are proved incorrect, and that the scientific method is an attempt to cope with this reality. Antirealists take a diametrically opposite view, that a theory should never be regarded as truth. By contrast, if I say “I have never seen a quark, but I believe that they exist”, this is part of a conjecture, most scientists do not stray into this area. They slowly build upon accepted empirical evidence to base this upon, but it is accepted by fact by most people in the world. Only the theory that God exists is not too dissimilar to saying that Quark’s exist, although it is more likely that they will become available for the latter.

Looking into history, there are many theories that sound absurd to modern scientists, such as the idea that heat is an invisible liquid called phlogiston. For example, I have never been to Australia, but I am sure that it exists. I have no solid evidence to base this upon, but it is accepted by fact by most people in the world. Only the theory that God exists is not too dissimilar to saying that Quark’s exist, although it is more likely that they will become available for the latter. The realism and antirealism debate is very complex and, as with most philosophy, there is a vast grey area. In general, there are two sides to the argument: realism and antirealism. The basis behind realism is the acceptance that non-observable phenomena actually exist. Proponents believe that science is full of theories that are proved incorrect, and that the scientific method is an attempt to cope with this reality. Antirealists take a diametrically opposite view, that a theory should never be regarded as truth. By contrast, if I say “I have never seen a quark, but I believe that they exist”, this is part of a conjecture, most scientists do not stray into this area. They slowly build upon accepted empirical evidence to base this upon, but it is accepted by fact by most people in the world. Only the theory that God exists is not too dissimilar to saying that Quark’s exist, although it is more likely that they will become available for the latter.