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The Epidictic Display of Science on Television

"Science", from the Latin *scientia* which means "knowledge", has helped the human race become what it is today. Through the acquirement of knowledge, we have come to live longer, safer, and more comfortable lives. If it were not for the dedicated work and passion of many scientists worldwide throughout time, many aspects of our lives that we take for granted would not exist. Because many areas of science are challenging and difficult to understand, these scientists are praised, yet isolated from the general public because of their work. For years, there have been many methods created to bridge the gap between the core-set and the general public; one of these methods, science television, is the most prevalent. Science on television is an attempt to display science in a way that would be understandable and entertaining by the general public, many of whom are not familiar with science, especially controversial science {Collins 1987: 691}. However, this attempt has become a double edged sword. While science on television is simplifying advanced experiments for the public, it is also distorting the public's view and opinions about science. What is shown on television is not really experimentation, but an epidictic display, a performance of sorts. By using the Discovery Channel's documentary "The First Time Machine", several aspects of science on television will be addressed to expose this distortion.

In the Discovery Channel's documentary, "The First Time Machine", the possibility of time travel is discussed and debated. Initially, theorists believe that time travel is impossible due to the result of paradoxes should the time traveler change events that would prohibit him or her

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from going back in time to change events in the first place. However, this is contradicted by other theorists, one of whom speculates that the futuristic inventions and works of Leonardo Di Vinci could have very well been influenced from a time traveler from the future. In any case, featured scientist David Deutsch of Oxford University thinks that the effects of time travel will be unconceivable as no one will be aware of its effects because of his belief that multiple, alternate universes exist at the same time; paradox or pre-destination could not be determined merely through normal observation. This is explained through a simple visual demonstration using a pool table; it shows how a time traveler, in this case a billiard ball, in one pool table game will result in the changes of that game to exist in another game, this being the alternate universe it creates.

The documentary then focuses on the main topic, the possibility of building a time machine. Dr. Ronald Mallett of the University of Connecticut discusses how this could be achieved through simple, yet not thorough, demonstrations about the mechanics of time. This interview is fueled by the passionate story concerning Mallett's father, who died of a heart attack when Mallet was a child. Mallett's intentions and passion since were to build a time machine to travel back in time to save his father. However, by the end of this interview, the narrator states that the machine Mallett is attempting to build will only allow him to travel from the time the machine is turned on to the future, prohibiting him from ever saving his father in the past. Towards the end, the documentary shows a sped-up video of Mallet and his team of scientists building equipment for the machine; this time that has past is long, evident in that the team is seen assembling a Christmas tree in their laboratory in the latter part of this scene. Before the credits begin, the narrator discusses that if the machine works, it will be the biggest revolution ever witnessed by humanity, and that it may come sooner than we think.

The portrayal of science on television is radically different from actual experimentation it displays. For science programs, the audience is the general public, people who have little to no knowledge about the topic or experiment at hand. In actual experimentation, the audience is the like-minded fellow scientists, also known as a core-set; actual experimentation is still in the process; there is messiness, mistakes, and results that disprove hypothesis {Dolby 1971: 18}. In science programs, however, only the correct results are shown after months, even years, of work and messiness that had occurred during the experimentation phase which is not shown. Also, performance is considered something that hasn't been done only once. It is something that has been practiced several times before being observed; the television show, being rehearsed, summarized, and reported, is a performance. An experiment, which is done once, isn't {Bauman 2004: 9 - 10}.

Uncertainty is an obvious characteristic of this documentary. While the scientists interviewed feel confident about the success of the time machine and the truths it will uncover, the machine has yet to be built. Only the concepts and early preparation of building the time machine were presented. This leaves an open window of uncertainty about what will happen in the future when it is completed. Should there be another documentary showcasing updates on the time machine, that documentary and all others after will most likely have uncertainty, too {Collins 1987: 701 - 702 }.

Most science television shows, like this documentary, are simplified and portrayed via television due to the difficulty of explaining certain aspects of the topic and the simplicity of distributing knowledge in this method. However, displaying science in this manner is what makes results and discoveries seem uncertain {Collins 1987: 693}. Another reason how this documentary is an epidictic display is how it is produced. Producers and directors edit out information they do not believe is understandable from the documentary; however, this edited-out information may important to the topic at hand, but is ignored for the sake of simplicity and entertainment {Collins 1987: 694}.

Despite that there is uncertainty about the discoveries and results of the time machine experiment discussed in the documentary, several of the scientists interviewed gave the impression that their beliefs were correct and that nothing can contradict them. This is evident in Dr. Deutsch's statements about Dr. Mallett's experiment to build a time machine, stating that if the machine does work, it will "put an end to the controversy about whether time travel would ever be practical". However, if the machine does work, there is no way to determine whether or not it could be practical for human use at this time since it has yet to be built; Dr. Deutsch's statements give the audience the impression that he is correct, despite this fact and the other scientists in the documentary contradicting him {Collins 1987: 704 – 705}.

The filming of calculated equations on Dr. Mallet's chalkboard and the fast time lapse of building the equipment for the time machine also gives an impression that everything discussed is being done immediately, and fast. These posed film shots and reenactments of building the time machine equipment give the impression that it is real and were being done at the time of filming. Also, nowhere in the documentary are there mistakes, false conclusions, or difficult

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explanations displayed; only the finished, polished product is shown; the messiness, if there was any filmed, is edited out during post-production {Collins 1987, 700 - 701 }.

All in all, experiments and science on television are two separate entities where television's epidictic display of science distorts and makes experiments seem understandable, therefore distorting the science behind it. The original experiment's intention is to solve or discover something; the reenacted experiment on television is solely a demonstration that displays the results or discovery that was found in the original experiment {Collins 1988: 727}. In other words, the general audience is not witnessing actual science because the results of the original experiment have already been found and there is cannot be any questioning or skepticism of these results since this was done during the original experiment {Collins 1988: 730}. Despite the results and discoveries found during the experiment phase, science shows and documentaries always display a sense of uncertainty, whether it is the scientist, or the results themselves. This leads to another show or documentary adding more details to the same topic, yet still having uncertainties itself. Should the general public continue to view science on television, attempting to grasp the true aspects of science will never occur.

References

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