**In areas of knowledge such as the Arts and Sciences, do we learn more from work that follows or breaks with accepted conventions?**

The Arts and the Natural Sciences continually evolve as new work is produced in each area. We learn from research and works of art in the sense that they help us uncover the ‘truth’ of our existence. Scientists attempt to learn how the world works by asking questions about it, using perception and reasoning to develop hypotheses, then devising experiments to find answers. Artists may reveal insight into the human condition with their portrayals of ‘reality’ through emotional impact the work has on its audience. In the Natural Sciences, accepted conventions may be defined as scientific beliefs that have endured for some time, while in the Arts they may be defined as the appreciation of particular artistic techniques. While neither of these can be considered absolute truth, they become benchmarks against which all new work is compared. The inconstant nature of both areas of knowledge indicates that we learn more from work that breaks with these conventions and explores new realms of human imagination.

The fact that we may learn more from work that breaks with accepted conventions of technique is illustrated by innovative movements in the visual arts, such as the emergence of Cubism. The conventional style of Realism, which accurately reflects nature, only shows the appearance of the subject from whatever angle the artist chose. Cubism, which was a radical departure from traditional techniques, enabled painters to explore the qualities of the subject itself, not limited to external appearances. The unconventional representation may tell the viewer more about the nature of subject, as particular aspects of it are highlighted, or even offer insight into the perspective of the artist, as he translates his emotional response to the subject into his work, allowing the viewer to share the artist’s experience.

The learning that we glean from art is most evident from works whose purpose is to make a moral statement, as they provide profound insight into the human condition. More may be gained from artists who break from accepted conventions and take risks, largely because their work has a greater impact on the audience, such as the plays of Norwegian dramatist Henrik Ibsen. Instead of the moral dramas expected of the Victorian period, Ibsen’s work challenged the values of the time and dealt with forbidden issues, including progressive ideas of feminism and adultery. His plays were considered scandalous and quickly garnered attention because of their controversial nature. Other more conservative playwrights did not portray the human condition accurately as they chose to depict only ‘proper’ codes of conduct, in keeping with the accepted conventions at the time. By presenting issues that were considered taboo, Ibsen was able to pierce through the sheltered beliefs of the audience. These types of breakthroughs continue to the present day. For example, sensitive issues, like violence and the brutality of war, now feature more prominently in films and television. We are able to learn more from exposure to these unfamiliar events as it allows a broader view of what happens in the world, expanding the limited idea of truth that we have gathered from only our own experiences. However, while artists offer valuable insight into the human condition, they are human themselves and naturally bring their own biases to their work. By examining the themes of Ibsen’s plays, we see his “anarchistic individualism” (Henrik Ibsen, 2002) and strong bias against convention. For example, in his play *An Enemy of the People*, the protagonist, Dr. Stockmann, stands alone in his attempts to expose the truth despite fierce social resistance. Ibsen clearly expresses his views through the character, attacking mass opinion and the hypocrisy of the political system (Cummings, 2003). Another example of strongly biased work is propaganda art, such as the films and posters employed by the Nazi party to incite anti-Semitist sentiment. Any work of art, whether it follows or breaks with accepted conventions, is immediately limited by the bias of the artist, which puts into question the reliability of what we learn from it.

On the other hand, it is possible not to learn more from art that breaks with accepted conventions if its purpose is not to educate. For instance, if a musician aims to express an emotion, it is difficult to objectively judge whether more is gained from a piece in a classical style or a modern rock and roll song. Since the judgment of art is highly subjective, a listener may deem one as more ‘truthful’ and effective than the other or even feel an entirely different emotion to what the artist intended as he responds to the piece based on his own experiences. However, music may provide valuable insight to the culture and attitudes of society at a particular time as different decades appear to be characterized by particular styles of music. At present, it can be said that music is strongly driven by technology. Electric instruments are widely used and synthesizers are aiding the advancement of music genres such as techno and trance. These developments, which depart from more traditional techniques, may be a reflection on the technological advancement of our society on a whole.

In the Natural Sciences, it is easier to judge how much we learn from scientific research as the purpose of scientific endeavors may be to learn the truth about our world – how it functions, what mechanisms determine the way organisms live and how we interact with our environment. When examining the progress of science, findings that break with accepted conventions seem to lead towards what we now accept as ‘fact’. Classic examples of this include the study of the Earth’s shape, at first believed to be flat, then discovered to be spherical and now described as an oblate spheroid. New discoveries, even those that expound on existing theories, may be seen as a departure from the accepted convention. Looking through the history of the Natural Sciences, there appears to be a cyclical progression in what humans believe. Theories are constantly being replaced by new ideas as further research ceases to correspond with the existing paradigm, a process known variously as falsification or as Khun’s Revolutionary Scientific Method. This clearly illustrates a limitation to our learning from science, as the knowledge that we accept today will most likely change in the future. Thus, the reliability of whatever we learn from scientific experimentation is highly questionable. If it is likely that the ideas we harbor today will be replaced in the future, what does that suggest about our newly learned knowledge? It is clearly not ‘true, justified belief’, as scientific truth cannot be entirely proven. The only assurance of the credibility of our knowledge is that it has not yet been proven to be untrue.

However, it could be argued that we actually learn from being wrong. When scientific research results in new discoveries, mistakes from existing theories may be identified and previous conjecture discounted. In this sense, we acquire a more comprehensive understanding of science, knowledge of what is false and what is closer to the truth. Furthermore, the knowledge that we gain from science may not have to be the absolute truth in order to be useful. Under the concept of pragmatic truth, scientific findings may still be valuable and even benefit humankind as long as they are relevant to our daily lives. This is especially evident in the field of medicine. Healthcare professionals must continually update their methods of treatment, in keeping with the latest research on the human body, genetics and how the increased industrialization of our environment affects us. In my own experience as a certified Emergency Responder, the protocol for administering first aid is constantly changing. One example in particular is the ratio of chest compressions to rescue breaths when performing cardiopulmonary resuscitation, which has changed from 15:2 to 30:2 in the past two years. However, even if the knowledge I have is not the absolute truth, evidenced by changes in the protocol, it is still relevant and may be used to benefit others by saving lives. Scientists may use today’s accepted conventions as a platform to further advance our knowledge by continuing to ask questions, relying on their intuition and reasoning to craft new hypotheses and eventually make new discoveries.

As seen in the progression of techniques in the Arts, we seem to achieve a greater sense of truth from work that departs from traditional methods. Similarly, scientific discoveries that break with the conventions of a certain time are eventually accepted as truth, though the knowledge that we gain is subject to question with regard to its reliability. Based on this conclusion, I may assume a similar trend can be seen in other areas of knowledge, such as the Human Sciences and Ethics, though the accepted conventions are be defined differently. This conclusion also implies that artists and scientists should be encouraged to deviate from accepted conventions to allow us to learn more. Particularly in the Natural Sciences, this raises the issue of funding for continued research, preferably in fields that have potential benefit to humankind, such as healthcare. Realistically, from a business point of view, capital would be provided towards endeavors that had potential to earn profits. Generally speaking, I think that the tendency to question our idea of truth allows our society to advance as a whole. Those individuals who choose to take risks, using their creativity and intuition to go beyond the accepted conventions, aid us in our search for the truth in a universe that is even “stranger than we can imagine” (Lewis, 2006).

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