

6. Compare and contrast our approach to knowledge about the past with our approach to knowledge about the future.  
Magdalena Lomacka, American International School, Vienna

Name: Magdalena Lomacka

Block: H

Date: 10 February 2009

Candidate number: 000072 038

## **6      Compare and contrast our approach to knowledge about the past with our approach to knowledge about the future.**

I know that I was born in the Karowa Hospital in Warsaw, on 14 August 1991, at 00:15. I do not know the time and place of my death. These two knowledge claims, which deal with events rather crucial to my existence, seem to suggest that my personal approach to the knowledge of the past and the future is that of certainty and uncertainty, respectively. However, when reconsidered, my previously claimed familiarity with the circumstances of my birth seems rather absurd. I surely cannot remember the event, therefore cannot rely on my perception and memory. Any knowledge here comes from authority, as I learned about the time and place of my birth from those involved in it. Using my reason and emotions, I conclude that they are likely to be telling the truth, but perhaps I am unaware of some existing motives for concealing relevant information. The limited amount of certain knowledge about the event of my birth and the limitations of memory bring to mind our approach to any awareness of history. The problems of reliance on authority are again apparent in science, which in turn seems to provide a possibility of absolute knowledge about some events of the past and the future. To contrast this kind of conviction, creative aspects of art and literature may be both limiting as they perhaps fail to provide certainty, and enriching in terms of allowing for expression of complex ideas and ambiguity. In order to compare and contrast our approach to knowledge about the past and the future, I shall consider the methods and limitations of understanding them through the study of the three mentioned areas of knowledge.

May 09

6. Compare and contrast our approach to knowledge about the past with our approach to knowledge about the future.  
Magdalena Lomacka, American International School, Vienna

Being defined as “the branch of knowledge dealing with past events”<sup>1</sup> but also as “acts, ideas, or events that will or can shape the course of the future”<sup>2</sup>, history is exceptionally relevant to the discussion of our approach to the knowledge of the past and the future. Historical research includes collecting information from stories passed from person to person, archeological findings, primary sources, recordings on tape, paper or stone, scientific analysis of objects, etc. These can prove very helpful when using reasoning to critically evaluate information that is generally accepted as true. For example, a birth certificate consistent with the story of my birth presented by my family would prompt me to believe in their version. Documentation also decreases the limitations brought forth by reliance on memory. Selective memory, personal and cultural bias, and emotional tagging make it almost impossible to fully trust a human mind to objectively store information. For example, cultural bias limits the points of view considered in an account of any event. I remember having learnt history in Poland, and when now contrasting it with the history class taken in Vienna, I can spot differences between the expressed levels of Poland’s significance in the same international events. Not only might the connotations of historical texts vary in different parts of the world, but the presented facts themselves. When my mother attended high school, Poland was under the sphere of Soviet influence, and there was no mention of the Katyn massacre in her history textbook. If essential information regarding the same event varies depending on location and the time period in which it is studied, we must ask to what extent can we really depend on history to give us truth.

Yet being acutely aware of one’s history is so important, because from it we can extract wisdom valuable for making new decisions and predictions. The second definition of history indeed seems valid, as we can use reason to evaluate the claim that future events tend to be built onto, and often caused by, the past. Having learnt about the unbearable living conditions in Weimar Germany, people’s discontent with the Treaty of Versailles, and the resulting opportunity for Hitler’s rise to power, we can try to avoid similar situations in the future or at least be warned when comparable

---

<sup>1</sup> The Random House College Dictionary p.628, Definition 1 of “History”

<sup>2</sup> The Random House College Dictionary p.628, Definition 6 of “History”

6. Compare and contrast our approach to knowledge about the past with our approach to knowledge about the future.  
Magdalena Lomacka, American International School, Vienna

initial conditions arise. However, all the discussed limitations of our approach to history are also relevant to any predictions based on the accepted information. If our account of past is uncertain, can the predictions that rely on it be trusted? Our limited data allows for the existence of some crucial origins for Hitler's rise to power that are yet unknown to historians. Furthermore, even if taking all precautions derived from the past, we must take into account that different conditions can also lead to similarly tragic results. Thus the limitations of forecasting include not only those already associated with attaining the knowledge of the past, but also the practical issues that can arise in the future and that currently simply cannot be accounted for.

However, more precise forecasting seems to be possible by the means of science, as scientific method allows us to make predictions that must be true if specified conditions are justified. Whether it happens in the past or in the future, Avogadro's Law guarantees that at constant pressure and temperature, the volume of a gas will increase if the number of moles of the gas present is increased<sup>3</sup>. This and other scientific laws contrast the extent to which we can rely on history to give us truth, by providing more limited, but also more precise information. One is able to perform experiments to test Avogadro's Law and deduce that at any point in time it would be impossible for a gas to react differently. However, not all knowledge presented by science can be easily tested, and apart from technical difficulties this can be caused by our inability to acquire data from the period discussed by the hypothesis. It is generally believed that three or four billion years ago, Earth's atmosphere consisted mainly of ammonia, methane, and water<sup>4</sup>. Only by studying the effects of the sun's ultraviolet radiation can we deduce what chemical reactions were triggered, and how they changed the make-up of the Earth's atmosphere allowing for living organisms to develop. In order to be able to say that I know this, not only do I have to completely rely on the authority that has made the conclusion, but also assume that all its underlying assumptions are correct.

Our approach to the knowledge of the future also relies on the predictions made by scientists, but these, just as the theories discussing the past, tend to alter due to new insights and are

---

<sup>3</sup> Chemistry, p.165

<sup>4</sup> Chemistry, p.702



May 09

6. Compare and contrast our approach to knowledge about the past with our approach to knowledge about the future.  
Magdalena Lomacka, American International School, Vienna

hard to rely on due to their complexity. As admitted by the physicist Stephen Hawking, his initial theory about the future of the universe turned out to be incorrect as he spotted a slight error in one of his calculations<sup>5</sup>. To some extent these limitations of science can be accounted for by repetitive testing, and one of the very aims of the scientific method is to minimize the influence of human error. However, predictions such as these of Professor Hawking cannot be physically tested at the present time, but only through calculations. Empirical proof of his correctness could only be obtained in the very distant future, if at all.

After having discussed the methods and limitations of history and science, it is valid to discuss a more imaginative approach to our knowledge of the past and the future. Aspects of art provide a contrast to the ways in which scientific predictions work, and a complement to the creative and story-telling function of history. As examined by J. L. Borges, “one thing, or an infinite number of things, dies in every final agony”<sup>6</sup>, as every man carries memories that after his death are lost forever. The inevitability of losing accounts of time periods is caused by the apparent infinity of time and coexistence of countless events and corresponding potentialities. In this example, approaching the past and memory through art allows for the explanation of concepts as complex as infinity and parallel realities. It is done through emotion rather than a strictly defined understanding. Picasso’s painting of *Guernica* surely is not an accurate account of how many people died in the massacre or of what they looked like; however the terror expressed in the painting gives a more accurate expression of this event than could be achieved by a precise account of the number of victims or their last names. Similarly, in art we express our approach to the future using emotion and abstract ideas rather than specific proven information. Human inventions spring from fantastical visions of the future. Flying, landing on the moon, or cloning would never have happened if it were not for abstract ideas of creative minds. In that sense, our creative approach to knowledge about the future creates it.

---

<sup>5</sup> The Brief History of Time

<sup>6</sup> Labyrinths, p.279

6. Compare and contrast our approach to knowledge about the past with our approach to knowledge about the future.  
Magdalena Lomacka, American International School, Vienna

Ultimately, just as in history we use reason to assess evidence and try to limit emotional and cultural bias, so does scientific method aim to obtain objective knowledge of the past and the future. Retesting allows for the assessment and further justification of scientific knowledge, but the complexity of calculations involved in the theories of the past and the future make their accuracy very dependent on the correctness of all their underlying assumptions. Art provides a possibility of a different approach to the knowledge of these two indefinite time periods, which include all but the present moment. It effectively expresses the preoccupations of the past by appealing to emotion, as well as allows us to test what the outcomes of different ways of thinking might be. A final distinction could be made by the means of emotion, as our approach to the future can possibly be that of hope and determination to shape it.

Word Count: 1,599

May 09

6. Compare and contrast our approach to knowledge about the past with our approach to knowledge about the future.  
Magdalena Lomacka, American International School, Vienna

### **Works Cited**

Borges, Jorge Luis. Labyrinths. Ed. Donald A. Yates and James E. Erby. London: Penguin, 2000.

Chang, Raymond. Chemistry. 7th ed. N.p.: McGraw-Hill, 2002.

Morris, Errol, dir. A Brief History of Time. Anglia Television.

The Random House College Dictionary. 1975 ed.