**2: How important are the opinions of experts in the search for knowledge?**

We usually hear the word “expert” quite often. “Experts said so” is a favorite supporting argument in many disagreements, even though it has a disputable value when used without proper referencing. Because of a high usage of this term in media, as well as in informal communication, it is interesting to ruminate over the extent to which it is plausible to be influenced by experts in the search for knowledge – “a justified true belief” (Lagemaat, 2005, p. 24).

The problem of today’s knower is that there is too much knowledge. It has been a long time since the era of Leonardo da Vinci (“Leonardo da Vinci”, 2011), or other famous polymaths, who managed to, at least partially, master every area of knowledge of their age. Today, one must rely on second-hand knowledge in areas of which they themselves do not have a high level of understanding, because there is not enough time for acquiring a high level of expertise in all areas of knowledge in a lifetime. Some of the most important sources of second-hand knowledge are, naturally, experts.

There are obscurities connected with gaining second-hand knowledge from experts, however. Some of them are general; others are related to particular areas of knowledge.

In order to speak about these problems we must first clarify who an expert is. An expert is generally understood as a person with a high level of knowledge or skill (“Definition of expert”, 2011). In practice I think that there are two main ways of gaining an expert status. Someone, who has *verifiably* been dealing with the particular problem for a long time, i.e., they have created a number of publications and successfully responded to criticism is likely to be called an expert; as well as virtually anyone, who is considered as a reliable source of knowledge by *public* or *their peers*.

Therefore, a set of questions arises: to what extent are experts chosen by the society? If we deal with the expert described by second definition, does the fact that somebody is accepted by public say anything about the true level of their knowledge? It seems it does. If an expert persuaded the public and earned its authority, their arguments are supposed to be well scrutinized. One could argue, however, that the fact that many people call somebody an expert does not tell us anything objective about their level of knowledge. As Anatole France said, “If 50 million people say a foolish thing, it is still a foolish thing” (“Quotation Details: Anatole France”, 2010).

Great examples for demonstrating that persuading a majority of people with flawed arguments is possible are politicians. Reality has shown that a politician is able to acquire a confidence of a great amount of people even by telling unrealizable or misleading election pledges. In the same way, a well-presented, but erroneous, scientific idea can be accepted by the public. In 1989 the media reported that "cold" (i.e. without high temperatures) nuclear fusion had happened during experiments performed by electrochemists Martin Fleischmann and Stanley Pons. These reports raised hopes of finding a cheap source of energy but have been disproved eventually, gaining cold fusion a reputation of pathological science (Chang, 2004).

Similarly, judging from my own experience, the spread of PCs has created a great number of “computer experts” – advanced users, respected by their relatives and friends. These “experts” often possess absurd opinions[[1]](#footnote-1) based upon unclear arguments, which, however, are perceived as knowledge by people who respect them. Therefore, every time we hear the word expert, we should determine whether the particular person indeed verifiably has a high level of knowledge or they are just perceived that way by others.

However, even “true” experts who have been verifiably dealing with a problem for a long time can make mistakes. They have, for instance, as anyone else, problem with expectations – the confirmation bias. This refers to a type of selective thinking when one tends to look for confirmations of their beliefs and ignore contradictions (“Confirmation bias”, 2010). Somebody could dispute that since experts are supposed to be more experienced in researching and gaining knowledge in general, they are likely to be aware of these dangers, and therefore, they should be able to successfully avoid them. Even though this is likely to be true, various events in history have revealed that even most rigorous scientists are able to come under the confirmation bias. For instance many astronomers of the late 19th and early 20th century, including a famed American astronomer Percival Lowell, had spent much of their lifetime trying to prove that intelligent life on Mars exists, because incorrect translation of Giovanni Schiaparelli’s work from Italian to English suggested that canals observed on the surface of the Mars were artificially constructed (Washam, 2010).

Moreover, one should always bear in mind that experts are authorities only in their area of expertise. Richard Feynman once said, “I believe that a scientist looking at non-scientific problem is just as dumb as the next guy” (Root-Bernstein, 2011). It could be argued that this quotation is not exactly true, since scientists have a highly trained brain for critical thinking. However, although a trained mind is surely an advantage, it alone is typically not enough for gaining an expert status in an area of knowledge.

Furthermore, certain expert-related issues are connected with some areas of knowledge more than with others. It seems that what distinguishes these areas of knowledge is the extent to which they are *exact*.

In mathematics, an area of knowledge in which uncertainty has little if any space, it is not common that experts are proven wrong on daily basis. It is due to fact that a presentation of findings of a mathematician is typically well-supported by rigid and doubtless proofs (unless presenting conjectures). If a new idea arises, it is immediately scrutinized by mathematicians throughout the world, before it gets widely accepted. Therefore, statements of these experts are usually consistent among them.

The same applies to natural sciences – physics, chemistry and biology. Even though a doubtless mathematics-like precision is not possible in these areas, since these sciences are directly dealing with the real world, high criteria for accepting new ideas are set. If a new theory arises, for example, it has to be well supported by experimental evidence, internally logically consistent, and succeed in predicting the future as well as explaining the past. Events, when an old theory is proven wrong and new theory is introduced, of course, happen. This is, however, the way natural sciences work, and it is the part of progress. Experts in these areas are, nevertheless, usually consistent with each other, because the level of exactness of natural sciences is high.

On the other hand, in the arts, for instance, are one’s opinions mostly based on perception and emotions, thus they are strongly subjective. Despite this subjectivity, experts on arts exist. Why? The prospective answer is that when you ask a critic about their opinion on a painting, you are likely to get a more sophisticated answer, than “I like it” or “I find it nice”. Arguments on which such answer is based can provide inspiration for further thinking, but every such opinion should be taken with a pinch of salt.

In social sciences such as economics, the room for personal opinions of experts exists, too. Ideas of economists are, therefore, not always homogenous, thus we are often able to listen to contradictory opinions of these experts. Problem arises, when two experts are presenting opposing opinions, both of them well supported. An example which illustrates this is easy to find - John Maynard Keynes and Friedrich August von Hayek, possibly the two most important economists, have introduced different opinions on characteristics of business cycle in an economy (Hayek, 1989, p. 202). This resulted in a division of opinions among economists, which last to this day – dividing economists, in addition to other schools, into Keynesians and Austrians. Therefore, in social sciences one should be extra careful while listening to opinions of experts, since the value of opinions of individual experts in these areas could be questionable.

The divergence of opinions of experts is indeed an issue for a knower. I am able to say, from my own experience, that comparing opinions of two experts can be a difficult problem. I have been dealing with eyesight problems for some time. Having become familiar with the Bates method, an alternative therapy aimed at improving the eyesight, developed on the basis of research of an American eye care physician and his followers (MacFadyen, 1968), I have decided to consult my personal ophthalmologist. When I asked about her opinion on Bates’ research, I got a negative response. Therefore, I had to decide for myself which expert’s opinion I prefer. When such a situation occurs, there is no better option than to personally assess all available arguments according to one’s contextual knowledge of particular issue.

Finally, although a need for experts exists in the today’s world, we should treat experts’ opinions only as hints, not as ultimate truths, while taking the nature of the particular area of knowledge into consideration. We should carefully assess the level of knowledge of individual experts, whose opinion we are considering, regarding only their authority in particular field. Lastly, we should always ensure that the particular expert opinion is consistent with our current knowledge and use all ways possible to check it, bearing in mind that experts’ opinions are only a second-hand knowledge.

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1. Such as never ending flame wars – Linux vs. Windows, Mac vs. PC, etc. [↑](#footnote-ref-1)