



“Robust knowledge requires both consensus and disagreement.”

Discuss this claim with reference to two areas of knowledge.

Word count: 1598

We often use "robust" about something of quality, something durable. Can an abstract concept, such as knowledge, have these characteristics? If so, how would we produce such a quality knowledge? Good reasoning? Intuition? Knowledge is, however, not something we only keep to ourselves. When producing knowledge, we often want to share what we find with others. But people are inquiring, they do not necessarily agree with what we find. What impact will disagreement have on knowledge? When does it contribute to robust knowledge, and when is the opposite, consensus, the best? Can both possibly exist simultaneously?

I will discuss the questions raised above with reference to natural and human sciences. I will only consider shared knowledge, as consensus and disagreement regards interpersonal relationships. Initially, I will discuss robust knowledge as a concept. I will then dive down in the many ways of agreeing.

We call phones robust if they have long durability. What makes knowledge durable? I think it is its ability to expand, to progress. I believe that stagnating knowledge, on the other hand, is one of the greatest hindrances to knowledge production. If people quit questioning, quit wanting to learn why things are as they are, all our knowledge would soon be out of date. Besides, what kind of knowledge is it that we almost always seek? True knowledge. For robust knowledge to be as true as possible, I believe one have to look to the academic world. An essential feature of science, regardless of discipline, is its desire to construct methods that will be able to discover truth. In human and natural science, evidence is what tells us how close to truth we are. No evidence, no truth. That gives progress. I will therefore regard robust knowledge as expanding, evidence-based knowledge.

Evidence-based knowledge in both natural and human science is built on the scientific method's principles, in which we can divide into five stages: Observation, hypothesis, experiment, law and theory. In order to have "both consensus and disagreement" within an

area of knowledge, an approach would be to compare these stages with each other regardless of area of knowledge. Do they differ in need for consensus and disagreement?

Consensus promotes unity. It can turn opposing ideas into one. Disagreement promotes diversity. It can create multiple outcomes from one idea. What is the advantage of these opposing means in production of knowledge? The first step of the scientific method is to extract a hypothesis from an observation. To do this, imagination is essential. According to Karl Popper, the "father" of the scientific method, "there is no mechanical way of coming up with good hypotheses on the basis of observed data."¹ From one observation, we should therefore encourage scientists to come up with multiple hypotheses, so that we might strike home with one. People have always yawned. Scientists have still not found out why.² Maybe we need to "think more outside the box" to find the answer? What is certain is that we will never find out why if no one comes up with a new hypothesis. When going from observation to hypothesis, we therefore need disagreement.

What role do consensus and disagreement have in the experimental phase? When considering how to measure whether the hypothesis is true or not, we have less freedom than when constructing a hypothesis. If we are to determine the effect of a medical treatment, for example, we want to set up a Randomised Controlled Trial, preferably double blinded.³ Not only are such general methods effective, as we do not have to come up with your own, but when using general experimental procedures, our results can easily be compared with others.

Besides, experiments have costs. Whereas everybody are free to come up with hypotheses, experiments often require apparatus, test persons or premises. As there is a scarcity of such resources, we need to narrow the large amount of hypotheses to a practicable amount of

¹ van de Lagemaat 2015: 359

² Neitz, Geitz and Jacobs 1989: 119

³ Tjomlid 2013: 115

experiments. In order to go from many hypotheses to one experiment, we need the unifying effect of consensus. Hence, a widespread consensus regarding both experimental procedure and content has established in natural science and in most human science. It enables knowledge to progress more easily, and thus, by my definition, become more robust.

To sum up, when moving from observation to hypothesis, we want a pluralistic approach. We therefore need disagreement. When moving from hypothesis to experiment, we are narrowing our focus, due to the need for comparable, applicable results. Consensus is essential.

Next question to consider in the scientific method is "what do the results mean?" We now want to make laws, and then theories. Is consensus as important at this stage as during experiments? There are certainly some conventions to concern also here. A comparison with other accepted theory, for example, is often a requirement. However, after experiments are made, scientists have, in theory, more freedom to interpret results and develop theories independently than at the experimental step. Contemplating a problem is not as resource demanding as doing an experiment. By how much disagreement is encouraged at this stage differs greatly by academic discipline. There is a clear difference between natural and human sciences.

In natural science, an objective is to develop theories that "explains and unifies various laws in terms of some underlying principles".⁴ We seek universal rules. To achieve this, we need the unifying means of consensus. Another requirement might be an analytical way of thinking, which implies that you should break everything down to its parts, such as atoms, in order to understand how the world works. If there, for example, is consensus on how electron spins in atoms occur, it might be easier to explain magnetism. In natural science, there is a widespread consensus to think relatively analytical. That is not the case in human science.

⁴ van de Lagemaat 2015: 348

Before considering human sciences, I will discuss the role of disagreement in natural science. Even though progress is essential, sometimes we need to step back and make sure that we are on the right track. In 1828, Pierre-Charles-Alexandre Louis, discovered that bloodletting, a medical treatment where blood was drained from a person that was ill, was harming rather than improving patients' health condition. This seems obvious to us now, but in 1828, bloodletting had been medical practice in Europe for over 2000 years.⁵ Throughout history, there have been several people, such as Louis, that has revolutionised the knowledge of academic disciplines. What they all have in common, is that they have questioned the underlying assumptions of the discipline. Thus, robust knowledge in natural science need disagreement.

In psychology, we can group causes of a mental illness, such as depression, in four quadrants: psychological (e.g. self-image), biological (e.g. diet), social (e.g. bullying), and social structural (e.g. homelessness). In Norwegian health care, therapists, such as social workers and psychiatrists, specialises within one of the quadrants. Often, a mental illness have causes in more than one quadrant, but due to resource shortage, patients often see only one therapist. Due therapist specialisation, patients with seemingly identical illnesses can get two very different treatments.⁶ Can such a disagreement possibly create robust knowledge, and in this case, save as many lives as possible?

This question creates tense discussion in the psychological academic environment.

Professionals argue whether the current approach is beneficial or not. Supporters of the current system argue that there is a problem in the therapist mentality, not the system. When being a specialist, you have to see the depth and breadth of a problem rather than becoming

⁵ Tjomlid 2013: 72

⁶ Liverød 2017

narrow on specific methods. "A good specialist understands that mental disorders are so complex that the cure has to reflect this complexity".⁷

The evidence-based practice movement oppose to this idea, wanting to map thoroughly what treatment that work the best for each illness. The idea is to discard those treatments that have the lowest efficiency for a certain illness. They want more specialised psychologists who follow psychology-specific procedures. The same goes for other therapists. To do this, a stricter evidence-based method, similar to that of natural sciences, is needed. We would also need more consensus within each therapist profession and consensus regarding how to measure efficiency. Supporters of the approach mean it will "promote lifelong learning", which in our terms implies promoting robust knowledge.⁸

There is unquestionably disagreement between different types of therapists. Paradoxically, there is consensus regarding the need for this disagreement in the mental health care due to the complexity of the field. This consensus gives robust knowledge. There is, however, disagreement regarding degree of therapist specialisation and uniformity of each therapist profession. I am not to say what approach that gives the best knowledge, but as a rule, questioning the current procedure of gaining knowledge can be necessary for knowledge to expand.

In this discussion, I have only discussed psychology, so I should not speak on behalf of all human sciences. There is, however, competing schools of thought also in disciplines such as economics (Keynesian and New Classical) as well that experiences similar challenges regarding disagreement and consensus.

⁷ Liverød 2017

⁸ Spring 2007

As reflected on in this essay, we need both consensus and disagreement to gain robust knowledge, given my definition of the concept. Which of them we need, however, varies both with phase in knowledge production and area of knowledge. Whereas natural science seek universal rules, human science deal with so complex situations that a diversity of explanation systems might be beneficial. Many human sciences, including psychology, experience tense discussions regarding knowledge procedure. Disagreement can be difficult. Regardless of area of knowledge, we always have to be inquiring for knowledge to progress, to be robust, so there is need for disagreement in both.

Bibliography

van de Lagermaat, R.. (2015). *Theory of Knowledge for the IB Diploma*. Cambridge: Cambridge University Press.

Neitz, J., Geitz T., & Jacobs, G., H.. (1989). Color vision in the dog. *Visual Neuroscience*, 119-125. Retrieved from http://www.neitzvision.com/research/publications/publications/1989-Neitz-Color_vision_in_dog-VisNeuro.pdf

Tjomlid, R., G.. (2013). *Placebodefekten*. Oslo: Humanist Forlag.

Liverød, S., R.. (Producer). (2017). Om dybden og bredden i psykisk helse [Podcast episode]. In *SinnSyn*. Retrieved from <http://www.webpsykologen.no/podcast/31-om-dybden-og-bredden-i-psykisk-helse/>

Spring, B.. (2007). Evidence-based practice in clinical psychology: what it is, why it matters; what you need to know. *J Clin Psychol*, 63(7), 611-31. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/17551934>