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### The ontological considerations

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# Will Science and Proven Experience Converge or Diverge? The Ontological Considerations.

*Johannes Persson*

Hans Larsson (1862-1944) is perhaps our most well-known Lund philosopher. He was a prolific writer, and the author of philosophical monographs, essays and also novels. He became professor of theoretical philosophy in Lund in 1901 and member of the Swedish Academy in 1925. Two of his research interests make him a natural starting point for this essay. First, he believed that there is reason and logic in experience and intuition, and that this gives experience and intuition a role not only in decision-making in ordinary life, but also in science and philosophy (Larsson 1899). Second, he became interested in the balance between the convergence and divergence of philosophical ideas (Larsson 1924). The philosopher as an individual often seeks divergence, he thought, but philosophical ideas tend to converge as they are worked out in depth and detail (Larsson 1944: 84-87). He supported his convergence thesis with a number of examples from the history of philosophy but he also accepted the general hypothesis that the convergence of principles follows from the ambition to see them universally applied (Larsson 1924: 217).

Larsson's claim was not that fully worked out philosophical ideas converge completely – a small but important “netto divergence” might remain and prolong their difference:

Den handlar för resten om 'konvergens och divergens' och ensamt det säger tydligt nog ifrån att jag icke önskar divergensen förbisedd. Den är enligt min uppfattning tvilling till konvergensen. Jag finner denna då jag söker göra mig reda för vad som verkligen skiljer, divergensnettot, så att säga. Innan man kommer fram till det, får mycket av den gängse uppfattningens brutto dragas ifrån. Men denna sista divergens får aldrig utplånas. Mellan Mills välfärdslära och Kants pliktlära är bruttoskillnaden väldig. Men när man ser att Mill räknar rättvisan som en av de viktigaste välfärdsposterna, kommer välfärdsberäkningen oftast (jag tror alltid) att till resultatet sammanfalla med pliktbudet [...] (Larsson 1944: 85)

Larsson's convergence idea is intuitive. It belongs to a family of such ideas, of which C. S. Peirce's version might be the most well-known:

But human opinion tends in the long run to a definite form, which is the truth. [...] There is, then, to every question a true answer, a final conclusion, to which the opinion of every man is constantly gravitating. (Peirce 1871/1992: 89)

It may be that the motivations behind some of the convergence ideas presented in the literature differ, and that this is true of Peirce and Larsson. In Larsson's case, there is ample room, it seems, for different kinds of negotiating processes of the kind that can be used by advocates of two or more philosophical or (indeed) political ideas. The mechanism behind convergence and divergence might be competition, or it may be more peaceful interaction between viewpoints aiming at explaining as many as possible of the appearances:

Idéerna, dem skall man aldrig försona! Säger Oswald Spengler; de skola föra sin kamp till slut, så världen gå trött och bruten ut ur vår tids blodströmmar. Men då är det nog falska idéer det är fråga om; icke genomtänkta och mognade, alltför partiella för att med rätta kallas idéer (Spengler tänker på den tyska och engelska anden), ännu ej inställda under det universella förnuftskravet. (Larsson 1924: 208)

Here I propose to stick with Larsson's convergence-with-a-possible-netto-divergence idea, and to apply it to two systems of ideas or experiences—systems distinguished by their form, or perhaps the knowledge generating mechanisms they rely on, rather than the content of the ideas or experiences they contain.

In Sweden, the notion of 'science and proven experience' has featured in the regulation of healthcare for more than a century. In 1890, the Swedish king, Oscar II, issued a Royal Decree explicitly obliging a physician to "deliver such counsel, and, as far as circumstances permit, to extend such therapeutic endeavours, to every patient under his care as are necessitated by the patient's condition and as are consonant with science and proven experience" (Pontin 1891). Today, the Patient Act (2014:821, ch. 1, p. 7) states that patients shall be given medical care that is consonant with science and proven experience, and the Patient Safety Act (2010:659, ch. 6, pp.1-2) makes it clear that healthcare workers have a personal duty to perform their work in accordance with this standard.

Most of us would say that we know, roughly at least, what one of the conjuncts in *science and proven experience* is. The nature of scientific knowledge has of course been debated, and in these debates different features of what we count as science have been in focus at different times. Deductive proof used to be regarded as a hallmark of science, and so did certainty. At other times, scientific method and fallibility have been seen as more salient. Nowadays, the concept

of systematicity seems especially important (e.g. see ALLEA 2017). But at one point, at least, the idea that science is grounded in observation was equally influential.

However, the nature of the other conjunct—*proven experience*—is something we are less certain about. Clearly, proven experience has something to do with experience. Without experience it is impossible. We can add three further observations. (1) Someone can act in accordance with proven experience with no experience of his or her own of that of which there is proven experience. (2) Proven experience is often a particular kind of experience of a measure or treatment—namely, that it works. (3) Proven experience is generally well tried, in the sense that the belief or practice it validates is often put to the test repeatedly.

Science and proven experience are sources of evidence, and are treated as such (Persson et al. 2017). Sometimes only one of the two is present to a significant degree. Small-scale farming, in particular—one of the most common forms of employment in the world—is still based largely on knowledge acquired through practical experience (Altieri 2004; Akullo et al. 2007), and some of the most sustainable farming systems in the world are entirely based on knowledge and practices acquired through the practical experience of generations of farmers, the so-called Globally Important Agricultural Heritage Systems (GIAHS). Sometimes one of them is marginalized, politically and ideologically (Hountondji 2002).

Similarly, thrombus removal following ischaemic stroke involves removing the clot mechanically. The usual procedure is to try to dissolve the clot using drugs, but if the clot is a big one this is not always successful. In advance of scientific support, or clinical trials, specialized centres have tried to remove larger clots mechanically. The results have been good, and consensus as to the effectiveness of the technique has emerged. Here we have a case where medical decisions

are based on proven experience for a considerable time, until science catches up and corroborates the experience (e.g. Persson et al. 2018; Wallin et al. forthcoming).

Many of our interventions in the public sector—whether in health care, or social work, or primary or secondary education—are required to be consonant with both science and proven experience. But is this requirement only instrumentally, and perhaps temporarily, motivated by the fact that sometimes our most reliable knowledge comes in the form of proven experience while sometimes it emerges as scientific knowledge. Larsson’s assumption would presumably be that eventually, provided enough work is put into science and proven experience, the two will become similar—partially identical, perhaps. Would they overlap completely? Or could there be a substantial netto divergence?

A straightforward—and too plain?—objection to Larsson’s and Peirce’s convergence thinking is that we may never reach convergence for the simple reason that we start asking different questions. If person A starts asking question Q1 and person B starts asking Q2, where is the guarantee that they will end up with the same beliefs or experiences?

There is no such guarantee, of course. The multitude of academic subjects, some of them with a very long history, testifies to this fact. Topic incommensurability (Hacking 1983) might be the result. This objection applies in a more interesting way to Larsson than it does to Peirce. Peirce, as we have seen, sometimes frames the convergence claim relative to a specific question, effectively excluding scenarios where A and B ask different questions. Larsson comes at the issues from a different angle, but on the other hand, he seems to restrict his discussion to philosophical system builders—who, it might be assumed, should deliver answers to every significant philosophical question.

There may be room for a connected complaint. The order of questions and answers can affect the result, or epistemic destination, considerably (e.g. Farber 2005). If we start with Q1, we are likely to understand it, and answer it, differently from the way we would do so if we were to approach it after dealing with Q2. Popper's P1>TT>EE>P2 schema is relevant here. Popper (1963) observes that, as a rule, error-elimination (EE) applied to a tentative theory (TT) leads to the emergence of a new problem (P2 as compared with P1).

These subtleties aside, it is certainly possible that questions raised from the scientific and the proven experience perspective are bound to develop along different trajectories.

Consider Larsson's conviction that the ambition of philosophical ideas is to be universally applicable. Not everyone would wholly agree. Baruch Fischhoff (2018) has argued that the philosopher's ambition is moderate in this respect, while the sciences are more ambitious. However this theoretical difference is settled, Fischhoff provides support, in effect, for the view that science is likely to develop its questions in accordance with the ambition that the tentative theories should be universally applied.

Things appear to be different when it comes to proven experience. Even if the ambition might in one sense be the same, namely to have proven experience of everything relevant, there is little to be said for the idea that proven experience should be formulated in such a way that it is always the same proven experience we rely on.

The unsought effect of such a strategy might even be that a third category—local knowledge—relating the abstract and universally warranted experience to the real cases, at the different hospitals, would have to be introduced and put alongside science and proven experience.

There is perhaps an ontological formulation of what has just been said. A theme has emerged in the VBE group working with Nils-Eric Sahlin:

Let us assume that proven experience is experience. Experience is in many ways similar to belief. It, too, has representational content. The idea of proven experience signals that it can be more or less uncertain, more or less robust. In addition, however, experience has a certain character. And it might be that proven experience has an additional character. It is, we may assume, unclear what these characters are. They might, for instance, be of the kind discussed in Leon (1987).

Proven experience can be shared. As mentioned earlier those without experience of their own of, say, the success of treatment X, can still reliably act on that experience. Given this, we cannot assume that the character of proven experience is always manifest as a physical token in each individual sharing it. But the token might still exist somewhere. Perhaps that is a condition of the proven experience's existence.

Something similar could have been accepted as true of scientific knowledge, especially if those who argued that scientific claims were only shorthand for more complicated claims about observations had been right. But it seems that they were not.

Hence there might be an ontological difference explaining why there will always be a netto divergence between science and proven experience.



## References

- Akullo, D., R. Kanzikwera, P. Birungi, W. Alum, L. Aliguma, and M. Barwogeza (2007). Indigenous knowledge in agriculture: a case study of the challenges in sharing knowledge of past generations in a globalized context in Uganda. World Library and Information Congress: 73rd IFLA General Conference and Council, Durban, South Africa.
- ALLEA (2017) The European Code of Conduct for Research Integrity. Revised Edition. ALLEA - All European Academies, Berlin.
- Altieri, M. A. (2004) Linking ecologists and traditional farmers in the search for sustainable agriculture. *Frontiers in Ecology and the Environment* 2:35-42. [http://dx.doi.org/10.1890/1540-9295\(2004\)002\[0035:LEATFI\]2.0.CO;2](http://dx.doi.org/10.1890/1540-9295(2004)002[0035:LEATFI]2.0.CO;2)
- Farber, I. (2005) Peirce on reality, truth, and the convergence of inquiry in the limit. *Transactions of the Charles S. Peirce Society* XLI(3), 541-566.
- Fischhoff, B. (2018) The art of proven experience. *Science and Proven Experience – Johannes*. Lund: Mediatryck.
- Hountondji, P. J. (2002) Knowledge appropriation in a post- colonial context. Pages 23-38 in C. A. Odora Hoppers, editor. *Indigenous knowledge and the integration of knowledge systems: towards a philosophy of articulation*. New Africa Books, Claremont, South Africa.
- Hacking, I. (1983) *Representing and Intervening*. Cambridge University Press.
- Larsson, H. (1899) *Poesiens logik*. Lund: Gleerups.
- Larsson, H. (1924) *Filosofiska uppsatser*. Stockholm: Bonniers.
- Larsson, H. (1944) *Post-scriptum*. Stockholm: Bonniers.
- Leon, M. (1987) Character, content, and the ontology of experience. *Australasian Journal of Philosophy* 65(4), 377-399.
- Peirce, C.S. (1871/1992) 'Review of Fraser's *The Works of George Berkeley*. In *The Essential Peirce* Vol. 1. Eds. Houser, N. and Kloesel, C. Bloomington: Indiana University Press.
- Persson, J., Antila, S. & Sahlin, N.-E. (2018) Hur förstå 'och' i 'vetenskap och beprövad erfarenhet?', *Filosofisk tidskrift* 39(1), 44-54.
- Persson, J., Vareman, N., Wallin, A., Wahlberg, L. & Sahlin, N.-E. (2017) Science and proven experience: a Swedish variety of evidence based medicine and a way to better risk analysis?, *Journal of Risk Research*. <https://doi.org/10.1080/13669877.2017.1409251>

- Persson, J., Johansson, E. & Olsson, L. (2018) Harnessing local knowledge for scientific knowledge production: challenges and pitfalls within evidence-based sustainability studies, *Ecology and Society* 23(4), 38.  
<https://doi.org/10.5751/ES-10608-230438>
- Popper, K. (1963) *Conjectures and Refutations: The Growth of Scientific Knowledge*. London: Routledge & Kegan Paul.
- Pontin, D. M. (1891) *Författningar m.m. angående medicinalväsendet i Sverige, omfattande år 1890*. Stockholm: P.A. Norstedt & Söner.
- Wallin, A., Wahlberg, L., Persson, J., & Dewitt, B. (forthcoming). How should the epistemology of medicine inform the regulation of healthcare? Theoretical and empirical perspectives from Sweden.