Creativistic Philosophy: Exploring the Limits of Formalization, #9[1]—Where am I Heading?

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(Mabel, 2007)[2]

1. What is This Series About?

For navigation, you need some technical knowledge, be it knowledge in astronomy, knowledge of how to build and how to use a compass, or knowledge of making or using maps or GPS devices. The mathematical content I am discussing in this series is of that technical type. It is not the main aim. But I want to make clear in which way computability theory (or, as we could call it as well: formalizability theory) can be viewed as a core component of philosophy. It serves two purposes here:

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[2] The image shows a simple navigational compass. In the article, navigation is compared to philosophy.

- The narrower aim is criticism of AI. The topic of AI has become a big one in recent years and it is necessary to get a better idea about what AI is and what it is not. Computability theory tells us that there are fundamental limits of what AI systems can do. At the end of the previous installment, I hinted at the reasons artificial general intelligence ("AGI") cannot be achieved with algorithms. Before that, I had presented the Creativity Hypothesis, which basically says that human beings are able to go beyond the limits of algorithms. I will discuss these topics in more detail in later installments. (Keller, 2024) outlines some ideas in that direction.

- The wider aim is to gain a new perspective of what philosophy is and what its purpose is. I am going to briefly sketch this in the present installment, before plunging back into some mathematical stuff once more in the following installments. The starting point is that computability theory shows that algorithms or formal theories are restricted and that full cognition must therefore go beyond what can be formalized. It must be creative. In the current installment, I will briefly sketch some consequences of this idea.

2. What is Philosophy? —Generating Reason

In installment #8, we saw that no single algorithm can solve all problems that are solvable by any algorithm. This means that no single formal, i.e., logical, theory can be used to solve all problems.

A consequence of this is that human reason, if it is universal, cannot be a complete algorithm. It must be a developing creative process, so it is never complete and never finished. If it were a complete, algorithm-like entity, it would have a limited reach and the human mind would be limited like algorithms, e.g., AI systems, having systematic blind spots.

If we assume that this is not the case—i.e., if we assume what I have called the "Creativity Hypothesis" in a previous installment—then reason must be something we are not just endowed with, as part of the philosophical tradition has it, but something that we have to create at first, bit by bit. There might be some innate starting version of it, but that first version must be incomplete and would only be the starting point.

There are creative cognitive processes in which reason is created (or modified, developed further, or adapted) in the course of applying it to new areas not yet covered by it. Reason, in this view, is the creatively growing core of cognition. Since we are not born with a fully developed reason, we have to learn it and reproduce it in each human being and each new generation, as part of our culture.

Moreover, since each human being's life and experience is limited, the process of generating reason must be a cooperative endeavor of many people who are participating in a discourse about reason and its applications.

I claim that it is exactly this collective, creative endeavor to create and apply reason that we call *philosophy*. It is necessary because of the incompleteness of any single formal theory or algorithm describing human cognition or knowledge.

In that core of cognition that we might call "reason," we can roughly distinguish two "components" or "directions" or "dimensions."

The **first** is the "logical" dimension. In this dimension, we are aiming for clear thinking, for achieving truth and for gaining justified, true, reliable knowledge. Computability theory tells us that this dimension cannot be completely formalized or described in terms of an algorithm, but we can always make improvements, increasing correctness, clarity, generality and efficiency of thought.

The **second** dimension is the ethical one. Since philosophy must be a collective endeavor, some notion of cooperation must be built into it right from the beginning. Additionally, the reproduction of reason in young people also requires that we have a benevolent attitude towards them. So aspects of ethics or morality or virtue must be intrinsic parts of reason. Like the logical dimension, the ethical dimension cannot be completely formalized since the range of situations in which ethics has to be applied is protean, i.e., it cannot be completely be captured by any single theory.

Reason is applied critically to all kinds of subjects. It is developed further by being applied to itself in a self-reflexive, creative, and critical manner. It is also applied to the ethical component that I have mentioned in the previous paragraph, even beyond the ethical requirements of the philosophical or pedagogic activities themselves.

If we go beyond this reflexive core and apply reason to human culture and society, we see the necessity for extending the perspective of reason to include values or goals. To some extent, this is part of the ethical dimension, but there is more here and we might tentatively subsume this as a **third** dimension under the heading of "quality."

What we are looking for is not just the improvement of logical or scientific thinking in the very restricted and inadequate sense of philosophy as a "hand-maiden" of science, but the improvement of human life and the human condition and human society, so the main topic of philosophy is not only science and knowledge, but human culture and civilization more generally.

Philosophy's main task, then, is the critical assessment of all aspects of culture and tradition—of which the sciences are an important but restricted part—and of human life and society in general. In this third dimension, we can see considerations of quality, aesthetic values (including beauty), the meaning of life, and the good or flourishing life (eudaimonia, philosophy of life), as well as political philosophy, i.e., the question of how society can be organized in such a way that such a good life is possible for all.

In this wider sense, reason is not value-free, and the discourse and process of generating it includes not just discourse about "logic," i.e., correctness of thinking, but also discourse about ethics, i.e., correct action towards and between people, and towards the environment, and quality, an admittedly vague concept connected to perception, but also to general aspects of life. The vagueness of the concept of quality is, again, a consequence of the impossibility of complete formalizations of thought, culture and reality.

Applying reason to non-human aspects of reality leads to science. Applying it to humans and human society and culture, on the other hand, involves also considerations of values and quality, so reason must be critical.

Its application to human affairs is what we can call "enlightenment," understanding this term as denoting a general and never-finished process, not just a specific historical epoch—the epoch of "Enlightenment" with capital E. Permanent enlightenment, understood this way, must lead to action, both in the private sphere and on the public level of institutions and societies. It must lead to rational politics, where "rational" refers to reason in the extended sense of including notions of ethics and quality.

The result of implementing the insights of enlightenment in practice is what we can call "modernity."[3]

3. Summary

Let's summarize this line of thought and add a few more points:

- Reality cannot be formalized completely. Human cognition cannot be formalized completely. They are "proteons."

- The core of human cognition is what we call "reason." It is necessarily always incomplete and has to be generated by applying it to new fields and by

[3] Note that this concept of "modernity" is not the concept used in history, referring to a certain epoch. It is also different from the concept of "modernity" underlying the idea of "post-modernity."

extending and restructuring it by means of a self-reflexive, critical, and creative process.

- This process is what we call "philosophy."

- Since reason is never complete and grows in interaction with different subjects of inquiry, the theoretical core of philosophy cannot be separated completely from its applications.

- Reason must be reproduced in each human being and each new generation, so pedagogy is a core component of philosophy.

- Furthermore, reason has to be developed collectively in a discursive process between many people.

- Both of these activities require ethics, so ethics is a component of reason and its development is part of philosophy.

- The critical application of reason to human thought, society, and culture requires the definition of criteria of criticism, which we might tentatively subsume under the heading of "quality." So discourse about such criteria is an intrinsic part of philosophy as soon as we apply philosophy to ourselves.

- Since the development of reason is necessarily a self-reflexive activity, and the development of reason in philosophical discourse and its reproduction in the pedagogic process means thinking about people, the application of reason to human beings is inevitable, and therefore the inclusion of considerations of "quality" is an inevitable part of the process.

- The application of reason to human society and culture can be called "enlightenment." The implementation of insights gained through enlightenment leads to what we call "modernity."

- The aim of enlightenment and the resulting project of modernity is the flourishing life of all human beings, including those in other countries and those in the future. It is the project that I have described as "homification" in (Keller, 2025).

- It is obvious that the continuation of this project is especially necessary today, since current trends in politics and economics go in the opposite direction, with devastating consequences for humanity and for life on earth.

So, while we start with the mathematical job of "compass technology," the purpose of the compass is philosophy, including practical philosophy. We can compare philosophy to the art of navigating a ship. It can actually be viewed as a generalization of navigation, the art of navigating life, both individually and as societies. What is out there, at the horizon or perhaps still beyond, is a better life and a better state of society. There are storms ahead, but seafaring is necessary.

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