CASE STUDY 1.
FROM DAAI to GCA
Turning Engineering into Generative Cultural Anthropology
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Abstract

In the *theory part* of the uffmm blog the DAAI paradigm has been described. In version 15.06.07, chapter 8, a short outline is given, how this paradigm can be described as a formal theory (with an implicit empirical interpretation function). In the *case study* part of the uffmm blog it will be shown, how this DAAI paradigm can be used as a paradigm for a *generative cultural anthropology [GCA]*.

1   GCA BASICS

The mapping from DAAI to GCA is somehow straight forward, indeed on the formal level it is a 1-to-1 mapping. The only difference is the possible empirical interpretation.

FINDING A MAPPING: Although this mapping looks so 'simple' if it is done, it was a long and confusing way to reach this point. Looking back it was the encounter with city planners in spring 2018, which generated a 'trigger' with the idea, to apply the DAAI paradigm to city planning, enriched with the idea of a stronger participation of citizens in the process of city planning. While
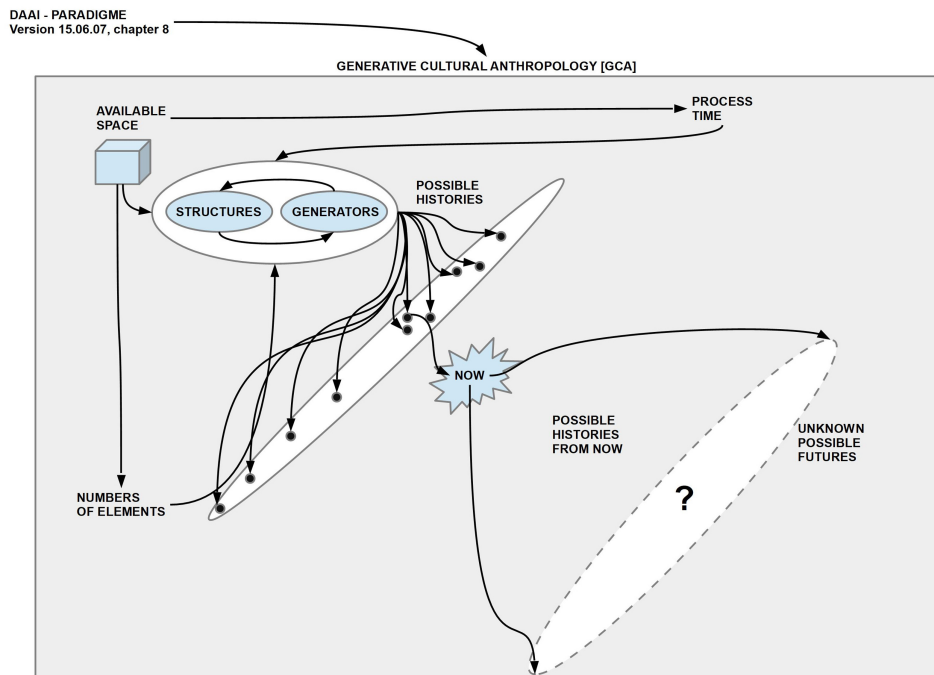

Figure 1: From DAAI to GCA

I experimented with these ideas in many ways[1] it have been many talks with Manfred Faßler[2] which enabled the final kick for the idea of a *generative cultural anthropology*.

GCA FOUR DIMENSIONS: As you can see in figure 1 there are four basic dimensions which span a space of possible processes with a critical point called *NOW*. Now is our actual situation. While the starting point from the beginning of the appearance of the home sapiens allowed principally many different outcomes, looking back from NOW shows only *one path*, which is *the* path which has been realized from the beginning.

IMPORTANT DISCIPLINES: Many disciplines have tried to *understand* the *logic* of this path. One very prominent discipline in this context is Biology

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[1] Together with Hans-Jürgen Schmitz and Tobias Schmitt I could run two semesters an interdisciplinary lecture with Bachelor students from the whole university where we experimented with simulation games for real cities.

[2] Manfred is a professor from the Goethe-University (Frankfurt), a distinguished sociologist and cultural anthropologist with a long individual history with the topic *Democracy and the Digital Transformation*

which shed substantial light on the machinery which has enabled the appearance of the homo sapiens from the beginning some 3.5 Billion years ago. There are many other disciplines contributing to an overall picture of this process. Important ones are surely Sociology, Psychology, Political Sciences, Anthropology to mention some of them. For the part of the natural environment of the homo sapiens population there are many important disciplines like Physics, Chemistry, Geology to mention only a few. And for the modern times we have the big complex of Engineering including Computer Science with the special discipline of Artificial Intelligence [AI]. As important, even fundamental, meta disciplines one has to mention Philosophy (of Science) and Mathematics. Without Mathematics no modern society would exist. And without Philosophy no coherent view of the world views can exist. The growing disaster of modern theories in Physics is – in my view – due to a substantial lack of Philosophy.

GENERATIVE X: The idea to look to reality as a *process* is old as it is the thinking of the homo sapiens. In the small section of Anthropology it is claimed that the term *generative anthropology* shall have been introduced by Eric Gans with a book from 1981, which bounds human *culture* to the development of *language*, where the origin of language is understood as a *singular event*.[3] Without discussing this point here in detail I claim, that the origin of language was *not* a singular event and that the development of mankind is far more than only language. Therefore I understand here *generative* as a far more general concept not only comprising language. And comparing the homo sapiens sub-population of the whole BIOM to all the other sub-populations of the BIOM I integrate all the observable differences under the term of *culture*. Therefore to describe especially the possible processes of the homo sapiens sub-population *embedded* in the BIOM and the whole natural environment it makes sense to speak of *cultural anthropology*, here seen from the point of view of the logic of *generating* possible processes of the *whole*, not only language.

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[3]Cf. the not very balanced article from Wikipedia here: `https://en.wikipedia.org/wiki/Generative_anthropology`(last access by 19.April.2020)