Some Remarks on TRIZ Development Laws

Hans-Gert Gräbe, 06.02.2021

At the end of our [Interdisciplinary Discussion on February 5, 2021](#) the question was raised about the status of the work on TRIZ development laws. As briefly mentioned in my [introduction](#), in our seminar during the winter term that just ended we had a closer look on that topic. With (TESE 2018) there is, after all, a clear summary of current discussions, which has even been elevated to the rank of an official MATRIZ document. However, according to our observations, important TRIZ schools do not share this reading in its entirety. In particular, they take issue with the central role given to the concept of development along to S-curves. In Altshuller's work (1979, 1980), this is more of an upstream auxiliary construct of speculative character, which received no empirical or conceptual substantiation even later, if one leaves aside the clear relationship to a simple mathematical development model with saturation term, which leads to the *logistic function*. M.S.Rubin criticises this fundamentally in his essay (Rubin 2009) and also postulates other developmental paths, especially in and after the maturity phase. In my texts (Gräbe 2020a) and (Gräbe 2020b) I develop similar arguments.

In the seminar, in addition to (TESE 2018), we looked at concepts of Koltze/Souchkov, Petrov, Zobel, Goldovsky and Rubin, in which the laws propsed by Altshuller are put into various constellations and series. In particular, in the probably yet unpublished paper (Rubin 2019), the laws are correlated with various TRIZ tools and this is taken further to the various phases of ARIZ.

Shpakovsky proposes a completely different approach with his evolutionary trees, which, to our understanding, gives a much more appropriate foundation to the subject.

After Altshuller had proposed his laws in 1979, in the years 1980-83 there was obviously already an intensive discussion about this among TRIZ experts. Here reference is made again and again to (Goldovsky 1983), where this discussion on development laws of technical and general systems is summarised in a cursory manner. The embedding of the topic in development laws (called „pattern" in Goldovsky) of general systems is still an important aspect also for M.S.Rubin. Besides the problem of differing concepts of laws (see [Nadine's lecture](#)), the concept of system itself still needs to be clarified.

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