Analogy inspired Biology

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Abstract: In this hypothesis paper, we identify a potential biological principle purely inspired by real life analogy. It is most likely that real examples in biology, disease, and pharmacology exist for this principle and have already been identified. The principle suggests how in an attempt to restore the level of a biological processes at one location or one instance, organisms/living systems may unintentionally end up dysregulating the process at another location or instance.

Results:

Consider two taps that exist side by side. For an unknown reason one of the taps, say the one on left runs normally when opened and the tap on the right side runs at a lower rate than normal when opened. Plumbers attempt to fix the tap using unknown method. After this treatment, the right tap that was running at lower rate previously now runs at the normal rate whereas the tap on the left that was running normally previously is running at an undesirably higher rate.

It is possible that when the same process is working in different parts of an organism simultaneously and if local causes dysregulate the process in one location, and if the body tries to restore this local perturbation using a systemic solution, then it is likely that the process may get dysregulated at other locations where it was running normally. Likewise, we can imagine that if a certain process is dysregulated at a particular stage of an organism's life cycle, and there is an attempt to restore it for that time interval, the correction may affect a later time interval for which the process was otherwise expected to run normally.