

Summary of my reasoning

CW = constitutive whole of a mechanism, at level n

K = component thereof, at level n-1

A = real object or agent independent of CW and ready for interaction with either CW or K.

.1. **Constitution:** CW is constituted of its components (and their relations) and *only* of these. It is dependent on its components and this dependence is *exclusive*.

.2. **Exclusive dependence** of CW on its components means that CW cannot be dependent on any other object or process, it can be changed only by constitution. Thus CW cannot interact with A. There is only one way for A to change a CW: by interaction with its components.

.3. **Synchrony:** When A interacts with K, K changes and CW changes synchronously. We call this change *bottom-up* because the primary interaction was with K on level n-1

.4. **Top-down:** Any *top-down* activation requires that CW can be changed by interaction with A at level n. That, however, violates the exclusive dependence. Therefore, *top-down* activation is not possible.

.5. **Criterion for top-down activation:** It has to be shown that CW interacted with A. In theory such interaction is not possible. In experiments it was never shown (see all examples given in my manuscript).

.6. **Correlation:** Activation experiments yield a correlation which tends to link the property emergence (e.g. a construction goal) of a mechanism with components and their concerted activity. Activation of the mechanism may be effected by *bottom-up* activation or by spontaneous internal activation or (if it can be shown) by *top-down* activation. It is the same mechanism which is to be activated in all cases. Therefore, irrespective of the direction of activation, the correlation observed should be the same.

.7. **Outlook:** (I am wondering about the following:) According to point (.2.) the exclusive dependence bars interaction of a CW with any A. Let us recall that the properties of real objects can be changed by interaction, while the properties of abstracta can not. Therefore, constitutive wholes may not be independent-real. They may be constructs of our mind. Perhaps our mind orders phenomena in hierarchies of dependent existence while reality does not have such an order (there are only wave equations, standard model etc.).