

## 6.2 The meaning of abstraction

In order to move forward to explaining the nature of the statistical residue, Lonergan now proceeds to unpack the meaning of abstraction in its cognitive context. He starts with a problem in understanding abstraction, namely the view of abstraction as an impoverish replica. This view causes problems in understanding both the nature of classical laws and of statistical laws, and how the two are related to each other. This also causes a difficulty in understanding and verifying one's understanding of the nature of the concrete universe as a whole.

Here is his argument:

If the sensible data A are "known" through replicas of every aspect of that data (a, a', a"...); and B are "known" through replicas of every aspect of that data (b, b', b"...), and likewise for C, D, etc, and each "replica" is really a term in a relationship known by a classical law, then, one knows all the replicas only through these relationships. Furthermore, if the replicas really are about each aspect of the data, then the totality of the data is only understood by understanding the totality of the replicas, which in turn are only understood via classical laws. Hence, all that is known, would be known by a classical law. There is no meaning in this context to a statistical law if the canon of complete explanation is upheld. Statistical laws are only temporary, a kind of "mental construct" or "epiphenomena" that once the correct replicas are constructed in classical laws, will fall by the wayside.

At the same time, if one admits that data are non-systematically related, and statistical laws do hold, then one must "look" at classical laws as mere epiphenomena. Every replica only has meaning by a classical relationship. If one is denying such a relationship, then the "term" which one is calling the "replica" really has no meaning. Every "replica" is really constructed of underlying random occurrences, which in turn are constructed of random occurrence of lower events, and on and on. Hence, classical laws, ultimately, are not real in this view.

The alternative that Lonergan proposes is that immanent understanding of an occurrence does not create an impoverished replication of the real, but rather grasps the intelligible in what is experienced. Once one formulates the insight, then one can distinguish that ineligibility grasped by understanding from what is negligible, or even unintelligible in experience. This means, that some facets of the data are left out of the classical relationship, hence can provide the grounds for other discoveries such as statistical probabilities. Likewise, with the introduction of statistical laws, one is grasping an intelligibility in the same sets of data, but these likewise do not account for everything in the data, hence this leaves room for facets of the data which are correlated. And finally, the same data, as data, can possess a facet which neither classical nor statistical intelligibility explain, and this is the empirical residue. Hence, the same sets of data can include classical correlations, statistical probabilities, and a residue ultimately explained by neither.