

Laws in the Human Sciences vs. Laws in the Natural Sciences

Laws in the Natural Sciences

This difference between the two approaches of natural sciences and the human sciences can be seen most clearly by comparing their concept of “laws”

In the natural sciences, understanding a phenomenon consists of subsuming a particular case under a general law, and a scientific theory (typically employing some kind of model) often allows one to relate events as “cause and effect.” There is, for example, a well-known correlation between the height above sea-level and the temperature at which water boils:

Increase in altitude above sea level=>decrease in boiling point of water

If we now ask **why** an increase in altitude results in a lowering of the boiling point, we will obtain a further explanation:

*Increase in altitude=>decrease in atmospheric=>decrease in boiling
above sea level pressure point of water*

And if we ask, again, **why**, an increase in altitude results in lower atmospheric pressure, we will again obtain a further explanation:

*Increase in=>less air above us=>decrease in=>decrease in boiling
altitude attracted by the atmospheric point of water
above sea earth's gravita- pressure
level tion*

And so on

Note that all the explanations here are of the same kind: each arrow links conditions to certain events, and represents a ‘covering law’ of the form “*Whenever conditions C hold, event E will occur.*” Each **why?** Question can be answered, scientifically, only by and explanation referring to another, more basic law. (At some point, which we have reached the most fundamental laws, like the law of universal gravitation, there can be no further explanation except to say, non-scientifically, that it is because God made the world that way)

Laws in the Human Sciences

Now, at first sight, the situation looks similar in the human sciences. There is, for example, a correlation observed in France around the turn of the 19th century by Emile Durkheim, between instability, i.e., the rate at which society changed in an area--be it better or worse—and the rate of suicide in that area:

Increase in anomie (lawlessness) => increase in suicide rate

However, if we now ask why greater “lawlessness” should result in a higher suicide rate, the explanation will not be in terms of further laws; there is no direct causal link. Instead, it will be in terms of the behaviors of individuals: when society *objectively* changes at a high rate, these changes affect the society’s individuals some of whom—each for their own *subjective* reasons, such as disappointed expectations—commit suicide, thereby contributing to the *objective* suicide rate. (Similarly, although prices, rates of interest and of exchange, propensity to save, etc., are fundamental quantities in economic theories, the correlations which such theories claim between them are the result of summing up, over the whole economy, the effects of particular decisions by individuals.)

The picture we get in the human sciences is something like this

increase in anomie => increase in suicide rate

- ☐ *Having lost his traditional job and unable to adapt to a 40 hour work week, Robespierre feels he is failing his family, so he drowns himself*
- ☐ *Madame Sarkozy cannot cope with her high expectations of her marriage being disappointed, so she takes poison*
- ☐ *Chef Robouchon, dismayed by the number of McDonalds springing up on the Left Bank, sticks his head in the oven and turns on the gas.*

Conclusion:

From this we may conclude that laws in the human sciences differ from those in the natural science in several ways:

- More complex laws are not supported by more basic “covering laws” which break actions down to the most basic level
- Human science laws cannot predict what an individual subject might do, but only predict what a percentage of this larger body of subjects might do
- Therefore it produces evidence that is not empirical, but only statistical
- Each confirming instance of a predicted action is unique (i.e., everyone commits suicide for a different reason”
- Human Sciences then predict trends, the likelihood of one type of action following another.
- Often the laws of human sciences are based on “ideal conditions” or “ideal types.” However, any slight shift in conditions may alter the outcome

All of this simply follows from the different nature of the relationships which underlie the observed correlations: causal relationships underpinned by a ‘covering law’ in one case, and the behavior of human beings in another.