



# OUR APPROACH IS MINIMALIST – FACTORS ARE NOT VARIABLES

Many or most causal mapping approaches, including Causal Loop Diagrams, also code the perceived strength of a causal link. This means that the factors become variables which can take values between, say, low and high or positive and negative, and we can make a much broader range of inferences using some form of numerical modelling. This can be seen as the extreme reproducible end of our spectrum and borders on quantitative approaches.

However we do not go so far: our causal factors are closer to being propositions rather than variables and we do not jump to code, say, poverty as negative wealth, or unemployment as obviously just the opposite of employment.

## The Conventional Assumption

A foundational assumption, particularly for those approaching causal mapping from a systems dynamics perspective, is that every concept on a map should be treated as a **variable**. This implies that each element is something quantifiable, capable of taking on different values across a defined spectrum, such as from low to high, negative to positive, or from zero upwards. Such a map is backed up by a dataset, a large-ish set of measurements of the state of each variable.

## The Discrepancy with Human Narrative

However, this assumption contrasts sharply with how people actually communicate and describe their experiences. When individuals explain what causes what in their world, they rarely speak in terms of discrete variables. Forcing real-world narratives into a rigid, variable-based structure requires significant and often unnatural contortions.

Constructing variables out of experience is just that: a construction. Quantitative social scientists are really good at it. But people's thinking and language are not inherently structured in this way.

For instance, in an evaluation of a program's effects, the sudden onset of the COVID-19 pandemic presents a significant modelling problem. While the pandemic certainly had a causal impact on countless factors, it doesn't fit neatly into the definition of a variable.

How would one define it? As a binary "COVID vs. no COVID" variable? The concept of a counterfactual -- a world where the pandemic never happened -- is abstract and difficult to

operationalize. This example highlights that the way people experience and discuss the world is often event-based, not variable-based, exposing a limitation in traditional modelling assumptions.