

In my talk I challenge the widespread conviction that unification in the context of modern physics relies on external constraints (metaphysical or formal principles). I argue that unification rather proves to be a *by-product* of genuine physical research. Accordingly, unification is explained *internally*. To support my claim, I will investigate different examples of unification in physics, for example Weinberg's attempt to detach Einstein's principle of equivalence from its close connection to a geometrization picture of gravity.