spacetime region (a local inertial frame) resulting from a distribution of matter cannot be distinguished by any physical experiment from the behaviour within a local spacetime region resulting from a suitably uniform acceleration.

Influenced by the arguments of Ernst Mach, who like Leibniz, Einstein developed a geometric theory of motion in the presence of matter, replacing gravity as a force with the effect of the motion of bodies being made to move through 4 dimensional spacetime made to curve by the presence of matter. (In fact, matter and momentum, and energy curve spacetime). Bodies would follow paths called geodesics, curves of minimum elapsed proper time in four dimensional spacetime, analogous to curves of minimum length on a curved surface. Even light could be made to follow curved paths.

Evidence for general relativity is perhaps less strong than for special relativity, but strong nevertheless. For example, the ~~Prediction~~ theory explains the advance in Mercury's orbit - a calculation made by Einstein himself.