Getting rid of the nonlocality nonsense: Violation of the Bell's type inequalities as a local expression of incompatibility

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By filtering out the philosophic component we can be said that the EPR-paper was directed against the straightforward interpretation of the Heisenberg's uncertainty principle or more generally the Bohr's complementarity principle. The latter expresses contextuality of quantum measurements: dependence of measurement's output on the complete experimental arrangement. However, Bell restructured the EPR-argument against complementarity to justify nonlocal theories with hidden variables of the Bohmian mechanics' type. Then this Bell's kind of nonlocality - subquantum nonlocality - was lifted to the level of quantum theory - up to the terminology "quantum nonlocality". The aim of this short talk is to explain that Bell's test is simply a special test of local incompatibility of quantum observables, similar to interference experiments, e.g., the two-slit experiment [1].

[1] A. Khrennikov, https://arxiv.org/abs/1902.07070 .