A Geometrical Horizontal-Vertical Coupling, K. HIRATA, KEK; S. PETRACCA, Univ. of Salerno, Italy - In a circular accelerator horizontal-vertical coupling may occur in single particle motion even in the absence of any coupling element. Usually the transverse coordinates of a particle running in a ring are locally defined by the Frenet-Serret triad. The parallel transport of a vector along a complete ring-turn shows that its final horizontal-vertical coordinates can exhibit a rotation with respect to the original ones for an angle. This (twist) angle depends only on the configuration of the ring. We give an analytic expression of this angle, and some examples of its computation. We suggest also a dynamical interpretation of the coupling coming from the twist. Finally we discuss some consequences of the twist related to tune and emittance changes.