I will present a series of results showing that measure preserving actions $\Gamma \curvearrowright X$ of countable non-amenable groups Γ on a probability space X that satisfy certain *malleability* and mixing conditions have very sharp rigidity properties. For instance, any cocycle for $\Gamma \curvearrowright X$ with values in a discrete group can be untwisted on the normalizer of any subgroup $H \subset \Gamma$ with the relative property (T). Same if H is the centralizer of a subgroup $G \subset \Gamma$ on which the action has spectral gap. Bernoulli and Gaussian actions are typical examples of malleable actions. As a consequence it follows that if Γ is either Kazhdan, is a product of two infinite groups, or has infinite center, then any Bernoulli action $\Gamma \curvearrowright X = X_0^\Gamma$ is *orbit equivalent superrigid*, i.e. if $\Lambda \curvearrowright Y$ is a free ergodic measure preserving action whose orbits coincide with the orbits of $\Gamma \curvearrowright X$ then $\Gamma \simeq \Lambda$ and the actions are conjugate.