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Alexandre Turull* (turull@ufl.edu), Department of Mathematics, University of Florida,
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We adapt the definition of *character triple isomorphisms* to take into account rationality properties of the characters, such as fields of definition and Schur indices, as well as, blocks, Brauer characters, and decomposition number, when appropriate. We discuss how equality of certain elements of the Brauer-Clifford group implies the existence of endoisomorphisms from one finite group to the other, and how each such endoisomorphism yields a unique character triple isomorphism in the new sense. The character triple isomorphisms can be manipulated through composition, direct sums, restrictions, field extensions, and these operations reflect parallel operations at the level of endoisomorphisms.

The existence of these character triple isomorphisms can be used to obtain results on character theory of finite groups where the fields of definition, Schur indices, or blocks are important. For example, the author has obtained a refinement of the Dade Projective Conjecture for all finite p -solvable groups using these results. (Received September 15, 2016)