A. Turull. Character correspondences in p-solvable groups.

Character correspondences play an important role in the character theory of finite groups. I. M. Isaacs, for example, introduced some and used them to prove some important early special cases of the McKay Conjecture, and character correspondences are at the heart of Dade's proof of the McKay Conjecture for p-solvable groups. The existence of well behaved correspondences of characters has other useful consequences in the character theory of finite groups. We discuss how, in certain cases, one can show the existence and uniqueness of character correspondences. These character correspondences have excellent compatibility properties. In addition, they may provide uniform choices for the correspondences mentioned above. These properties have useful consequences for the character theory of p-solvable groups, including providing a proof for a strengthened version of the McKay conjecture for all such groups.