Stephen D Smith* (smiths@math.uic.edu). Some remarks on Oliver’s p-group conjecture. Preliminary report.

After proving the Martino-Priddy Conjecture on p-fusion systems, Oliver observed that for odd p, an easier proof would follow from showing that the Thompson subgroup J(P) (for a Sylow p-group P) should lie in another normal subgroup he denoted by X(P).

The literature now contains various partial results—especially addressing the stronger conjecture that a faithful failure-of-factorization module V for P should admit an element of Z(P) acting quadratically.

The talk will survey some of the results in the literature; and add a few elementary remarks, using the viewpoint of embedding P in a full unipotent group on V. (Received August 12, 2012)