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Joseph P Kung* (kung@unt.edu), Department of Mathematics, 1155 Union Circle #311430, Denton, TX 76203. *Transvectants and finiteness: Gordan's way of doing invariant theory*. Preliminary report.

I will attempt to reconstruct Gordan's thinking on questions in invariant theory, particularly his way of proving the theorem that the covariants of binary forms can be generated from a finite set of covariants. Any such reconstruction can only be conjectural, and so I will be presenting "historical fiction", not "history." I will show that Gordan's thinking is more attuned to the twenty-first century than Hilbert's, and that Hilbert owed more to Gordan than he was willing to admit. With Gordan's posthumous reputation as an example, we will also discuss the issue of how reputations are (cyclically?) created and destroyed in mathematics. (Received July 25, 2013)