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(Erratum).

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Erratum

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William Browder and Nicholas M. Katz

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In our example 3.3 (1), line 6, it is asserted, falsely, that $\deg(X) = N^g$. In fact, $\deg(X) = (g!)N^g$, and it is rather the coherent Euler characteristic $\chi(X, \mathscr{L}^{\otimes N})$ which is N^g. The two sentences following this error become correct if "$\deg(X)$" be replaced by "$\chi(X, \mathscr{L}^{\otimes N})$"; this results from the following theorem, which is proven but not stated in our paper.

Theorem. *Let k be an algebraically closed field, X a projective k-scheme with $H^0(X, \mathcal{O}_X) = k$, and G a finite group of k-automorphisms of X which acts freely on X. For any invertible sheaf $\mathscr{L}$ on X whose isomorphism class in* $\mathrm{Pic}(X)$ *is fixed by G, we have*

1) *$\#G$ divides $\chi(X, \mathscr{L})^2$.*
2) *if G is cyclic, or if* $\mathrm{char}(k) = p > 0$ *and G is a p-group, then $\#G$ divides $\chi(X, \mathscr{L})$.*

The point of example 3.3 (1) is that this theorem is sharp for principally polarized abelian varieties.