Erratum: Equilibrium Magnetization at the Boundary of a Magnetoelectric Antiferromagnet [Phys. Rev. Lett. 105, 147204 (2010)]

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The Letter [1] should have acknowledged and cited the work by Andreev [2], which was inadvertently overlooked. This latter work introduced a phenomenological surface magnetization and concluded, by analyzing exchange invariants, that it may be finite for all antiferromagnets and that those with unbroken macroscopic time-reversal symmetry can exhibit surface magnetization domains. These arguments are highly relevant to Ref. [1], which I happily acknowledge. The work [1] treats the problem of (otherwise poorly defined) boundary magnetization as a special case of a general, microscopically definable probe functional, explicitly taking into account boundary roughness and allowing for relativistic interactions. It also spells out the implications for electrically controlled magnetism using magnetoelectric and multiferroic materials.

I am grateful to E. Y. Tsymbal for bringing Ref. [2] to my attention.

[1] K. D. Belashchenko, Phys. Rev. Lett. **105**, 147204 (2010).
[2] A. F. Andreev, JETP Lett. **63**, 758 (1996).

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