Erratum: 'Temperature Fluctuations and a New Third Law of Thermodynamics'*

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The following "Note Added in Proof" was omitted from the published paper.

Two articles dealing with temperature fluctuations have been brought to our attention. The first is by Y. Imry, in *Directions in Condensed Matter Physics, Memorial Volume in Honor of S.-K. Ma*, p. 153 (World Publishers, Singapore, 1986). This article alerts us to the dilemma associated with the limit as $T \rightarrow 0$ of Eq. (1). Imry focuses on observing the threshold temperature T_0 through the degree of excitation of the levels of the system. The second article is by B. B. Mandelbrot, *Physics Today* **42**, 71 (1989). Mandelbrot focuses on the significance of temperature fluctuations in the context of various ensembles used in statistical mechanics and therefore dwells on formalism. Since temperature is a physical parameter that can be clearly defined operationally, one is inclined to take the "existence" of temperature fluctuations seriously only if there is an operational means of detecting them. Our experiment satisfies this need by probing the behavior of a reservoir with a thermometer. The most direct means of measuring temperature fluctuations would be to monitor the fluctuations of the reading of a thermometer. The contribution of the intrinsic fluctuations of the thermometric parameter of the thermometer would have to be taken into account.

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