

**LETTER TO THE EDITOR: "Cheese or Flu?"**

I would like to comment briefly on some of the points raised by Masanori Kaji in his recent review (*Bulletin*, 2007, 32, 58-59) of my book *Mendeleev on the Periodic Law*. Anyone who has studied the literature on Mendeleev knows that it is filled with contradictory claims concerning even the most rudimentary facts of his life, such as his birth order or the number of his siblings. Thus the older English language sources (1-3) on Mendeleev are unanimous in claiming that the reason Menshutkin read Mendeleev's paper at the 18 March 1869 meeting (4) (all dates are westernized) of the Russian Chemical Society was because Mendeleev was ill at the time, not because he was away on a trip inspecting cheese cooperatives as claimed by Gordin (5). According to Leicester, who was able to directly read the Russian literature, the story of Mendeleev's illness is traceable to a 1908 biography of Menshutkin by his son (1)—a claim which the son also repeated in a letter to the British journal *Nature* in 1934 (6):

Mendeléeff prepared his first essay, "Correlation of the Properties with the Atomic Weight of Elements" in early March 1869 intending to communicate it to the Russian Chemical Society ... at the meeting on March 6 [i.e. March 18]. Illness prevented him from attending, and the paper was read, at his request, by my father, Nikolai Alekandorvic Menshutkin, at the time Professor of analytical chemistry at the University of St. Petersburg.

Gordin, on the other hand, fails to document the source of his claim concerning the cheese cooperatives and the earliest source I could trace for this story is a 1974 article by Kedrov (7). However this author contradicts this claim in an earlier and more detailed account in which he explicitly states that the cheese cooperative inspection trip was actually scheduled to occur between 1 March and 12 March 1869, thus allowing Mendeleev plenty of time to attend the meeting of the Russian Chemical Society on the 18th of March (8). According to this account, the cheese inspection trip was pertinent not because it interfered with Mendeleev's presence at the meeting but because it interfered with his resolution of the final form of his periodic table, which he completed on 1 March and rushed to the printer, thus causing him to delay his departure for the inspection trip by one day.

Thus on the whole, I concluded that the illness story was the better documented of the two. Though there may well exist Russian documents that prove otherwise, no mention of them was provided by either Gordin or Kedrov, nor could I find any in the available German or translated Russian literature. In any case, since my book was not a biography of Mendeleev, I did not feel it was pertinent for me to wallow in this kind of trivial detail in either the body of the text or in an extended footnote.

I might further note that Gordin's otherwise valuable biography is not as infallible as Kaji implies. Thus Gordin also follows the 1974 article by Kedrov in translating the title of Mendeleev's first flyer on the periodic table of 1 March 1869 as "An Attempt at a System of Elements Based on their Atomic Weights and Chemical Affinity." Though it is true that the term affinity is a rough synonym for "kinship" or "likeness," the term "chemical affinity" also has a very specific technical meaning in the chemical literature, where it refers instead to the relative stability of a chemical compound. Since in his paper of 18 March Mendeleev specifically rejected the use of chemical affinity orders as the basis for chemical classification, the Kedrov-Gordin translation is very misleading; and the intent is much better conveyed by Kamensky's 1905 translation as "An Attempted System of the Elements Based on their Atomic Weights and Chemical Analogies." On the other hand, Mendeleev's own translation of his title into French as "Essai d'une système des éléments d'après leurs poids atomique et fonctions chimiques" suggests instead the idea of chemical properties or behavior rather than affinity or analogy (9).

## References and Notes

1. H. Leicester, "Dmitri Ivanovich Mendeleev" in E. Farber, Ed., *Great Chemists*, Interscience, New York, 1961, 719-731 (724).
2. O. N. Pizarzhevsky, *Dmitry Ivanovich Mendeleev: His Life and Work*, Foreign Language Publishing, Moscow, 1954, 83.
3. P. Q. Posin, *Mendeleev: The Story of a Great Scientist*, McGraw-Hill, New York, 1949, 171, 175-175.
4. In the 19th century the western and Russian calendars differed by 12 days. Thus in the Russian calendar the meeting of 18 March occurred on 6 March and Mendeleev's flyer of 1 March was produced on 17 February, etc.
5. B. N. Menshutkin, "Early History of Mendeléeff's Periodic Law," *Nature*, **1934**, *133*, 946.
6. M. D. Gordin, *A Well-Ordered Thing: Dmitri Mendeleev and the Shadow of the Periodic Table*, Basic Books, New York, 2004, 28, 30.
7. B. M. Kedrov, "Dmitry Ivanovich Mendeleev," in C. C. Gillispie, Ed., *Dictionary of Scientific Biography*, Scribners & Sons, New York, 1974, Vol. 9, 286-295 (288).
8. B. M. Kedrov, "On the Question of the Psychology of Scientific Creativity (On the Occasion of the Discovery by D. I. Mendeleev of the Periodic Law)," *Soviet Review*, **1967**, 8, 26-45 (28 and 32). This is an English translation of an earlier article which originally appeared in *Voprosy psikhologii*, **1957**, 3 (6), 91-113.
9. D. I. Mendeleev, *Principles of Chemistry*, Longmans, Green & Co., London, 1905, 3rd ed, Vol. 2, 18, note 8.

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