

“Bad Grammar as well as bad logic”: Christine Ladd-Franklin on Bertrand Russell

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Introduction / Plan for the talk

- Who is Christine Ladd-Franklin?
 - ▶ Biography
 - ▶ Logic
- Christine Ladd-Franklin and Bertrand Russell: What everyone “knows”
- An overview of our work in progress:
 - ▶ The CLF archives at Columbia
 - ▶ CLF on BR
- Conclusion

Who is Christine Ladd-Franklin?: Biography

- Born in 1847, in Windsor, Connecticut.
- Graduated as valedictorian at Wesleyan Academy in 1865.
- Fall–Spring 1866: enrolled at Vassar College.
- Worked as a teacher until she could afford to return to Vassar.
- At Vassar, studied astronomy under Maria Mitchell.
- Turned to mathematics when a career in astronomy/physics wasn't possible.
- Numerous publications in mathematics journals (e.g., *Analyst*, where she was the first woman published) between 1875 and 1886.
- Taught mathematics at secondary school for nine years.
- Accepted to Johns Hopkins University in 1878, with the support of James J. Sylvester.
- Married fellow student Fabian Franklin in 1882.
- Post-PhD career: Psychology of perception.
- Died in 1930.

Who is Christine Ladd-Franklin? (2)

- Studied mathematics and wrote a dissertation, *On the Algebra of Logic*, under the supervision of C.S. Peirce, published in 1883.
- Later papers on logic (1889, 1890, 1904, 1912, 1913, 1920, 1927, 1928).
- Applied to teach at Johns Hopkins in 1893 (denied).
- Was given permission in 1904 to teach one class a year, for five years.
- Awarded her PhD in 1926.

Christine Ladd-Franklin and Bertrand Russell

- Russell's anecdote: "I once received a letter from an eminent logician, Mrs. Christine Ladd-Franklin, saying that she was a solipsist, and was surprised that there were no others. Coming from a logician and a solipsist, her surprise surprised me." (*Human Knowledge: Its Scope and Limits*, 1948).

The Ladd-Franklin archives at Columbia

- Vast amount of material in her archives yet to be explored.
- (3000 photos taken across 30+ boxes, less than half the material!).
- Universal languages such as Esperanto.
- Notes on philosophical topics, including fundamental concepts of logic, relationship between logic and psychology, draft book(s).
- Extensive correspondence or engagement with: Boole, DeMorgan, Couturat, Jevons, Jones, Mitchell, Peirce, Russell, Schrödinger, Schröder, Paul Weiss, Whitehead (“You told me (when I had the happiness of seeing you) that you were very familiar with my paper on symbolic logic in the *Studies in Logic* by Members of the Johns Hopkins University—you told me in fact (much to my pleasure) that you kept the book always on your study-table.”), etc.

CLF on BR (1)

mathematics. Thus, six are necessary for the theory of numbers,
eight or nine for all pure mathematics
Primitive Propositions.

- *1 Anything implied by a true proposition is true. Pp.* This proposition
 - * The letters "Pp" stand for "primitive proposition" as with Peano.
- is used in every proof without exception; hence it will not be referred

* Bad grammar as well as bad
logic. You can only say the truth of
primitive if you desire to make a
verbal noun. Best is $(p \vee q) \leftarrow (q \leftarrow r)$, but

CLF on BR (2)

- Numerous other dismissive remarks (e.g., “Not only is this peculiarity of the copula ignored, as a matter of course, in the common logic, where more than two terms is an ‘unknown,’ but you will hardly find it, I believe, explicitly set forth in the (poor) symbolic (mathematical) logic of Peano-Russell,” Box 41.)

CLF on BR (3)

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2000. 2
His philosophy is
all wrong - see
Lectures on the
Logic of the
Philosophy of
Language (1917) p. 29
& (in first note)
"Mrs. Anna Stephens
extraordinary clear
& brilliant disquisitions"
Linn. 1917.

* first thing yet!

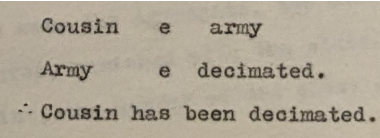
"... in the (poor) symbolic (mathematical) logic of Peano-Russell"
"His philosophy is all wrong"

CLF on BR (4)

- At the 1917 APA, CLF gave a paper “Bertrand Russell and Symbolic Logic” (abstract published in *Philosophical Review* 27 no. 2 (1918).)
- In September 1918, CLF gave the paper again at the American Mathematical Society (summary by F.N. Cole published in *Bulletin of the American Mathematical Society* 25, no. 2 (1918).)
- In the archives, we have found drafts of this paper, whose order of drafting we are attempting to reconstruct, including any changes between the APA presentation and the AMS presentation.

CLF on BR (5)

- “Bertrand Russell and Symbolic Logic” (1918): “That an inept symbolism is made use of in mathematics. . . would be of no consequence, but Russell and Peano treat this ‘addition’ [of \in] as constituting an important improvement over the logic which preceded them—that of Peirce and his school—instead of which it is simply erroneous.” [Box 41]



Cousin e army
Army e decimated.
∴ Cousin has been decimated.

CLF on BR (5)

I have been trying to persuade the philosophers that there is nothing of critical importance in the works on logic of Bertrand Russell for them,—that the uneasy feeling they have that if they have not already read his big volumes they ought to lose no time in doing so, is wholly unjustified,—that so far as those works discuss logic or philosophy at all they do it from a purely scholastic—meticulous—even (one might almost say) cranky—point of view [Box 10].

Thanks!