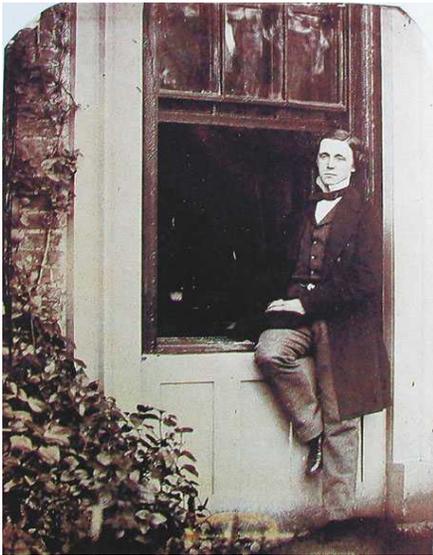


Charles Lutwidge Dodgson

Charles Lutwidge Dodgson (January 27, 1832 – January 14, 1898) was born at Daresbury, England, the eldest son and the third child of a family of eleven, all of whom had a stammer, which Charles called a “hesitation.” His father, also named Charles, was a brilliant clergyman, who married his first cousin Frances (Fanny) Lutwidge, who by all reports was unfailingly gentle and patient. As a child, Charles displayed a “quaint precocity,” which included a fascination with logarithms, staging puppet shows, and in creating clever puzzles. At Richmond and Rugby private schools he was a good student, exceptional in mathematics and divinity.



During his school days, Charles organized Dodgson family magazines, which he filled with poems, limericks, parodies, humorous essays, and burlesques of old English. His mother’s brother, Skeffington Lutwidge introduced Charles to



photography, which became a life-long avocation for Dodgson. In 1851, Dodgson entered Christ Church College, Oxford. He stayed there until his death forty-seven years later. He took his bachelor’s and master’s degree with first-class honors and was appointed to the faculty. In 1861, he was ordained a deacon of the Church of England. He never aspired to becoming a priest, preferring to remain a mathematician.

Dodgson wrote mainly on geometry, including a light-hearted defense of Euclid in *Euclid and His Modern Rivals*, and on symbolic logic. In his *An Elementary Theory of Determinants* (1867), he gave general results on the solution of m equations in n unknowns, with m greater than, equal to, or less than n , in terms of augmented and unaugmented determinants. He also was interested in mathematical puzzles and games, being especially intrigued with computation “tricks,” and cryptology. But Dodgson will be remembered forever, because he was **Lewis Carroll**, the author of the classics *Alice’s Adventures in Wonderland* (1865) and *Through the Looking Glass and What Alice Found There* (1872). His children’s poems include “Phantasmagoria,” “The Hunting of the Snark,” “Jabberwocky,” and “The Walrus and the Carpenter.”



Dodgson was a gifted amateur photographer with a genius for picturing the innocence and fragility of children, particularly those of his favorite subjects, the Liddell sisters. Of these, the most remarkable photographs are those of Alice Liddell, his model for Alice in Wonderland.

Although the photographs are of a pre-pubescent child, they lovingly show the expressions of a female far beyond her years. It has been debated whether Dodgson's obsession with young girls was deviant, but no evidence has been found to suggest that his obvious love for Alice was carnal lust. Dodgson appreciated female companionship, but he did not limit such

friendships to young girls. He also had friends among mature women, many of whom also modeled for his camera, but it seems unlikely that any of these relationships were of an overt sexual nature.

Whatever the truth about Charles Dodgson, the only thing that greatly matters today is his alter ego Lewis Carroll. And the truth is that Lewis Carroll is among the immortals of literature. Those who have not read his masterpieces should do so without delay, having robbed themselves of memorable experiences. In his *In Mathematical Circles* (1969), Howard W. Eves relates a story that Queen Victoria was so delighted with Lewis Carroll's "Alice" books that she sent a servant to buy every book that he had written. She was not amused when the servant came back with a bundle of books – all by Dodgson and all on mathematics. The story is widely held to be apocryphal, but it is still a good anecdote.

While many hold that Carroll's tales were filled with delightful nonsense, there is a deeper meaning in his works. Often they hide instances of symbolic logic, which greatly interested Dodgson. Whether these are noticed or not, much of what he wrote makes marvelous sense to mathematicians, who do not merely hold the "Alice" books in high regard because the author was one of them. Consider the exchange between Alice and Humpty Dumpty.

"That's glory for you!"

"I don't know what you mean by 'glory'," Alice said.

"I mean, 'there's a nice knock-down argument for you!'"

"But 'glory' doesn't mean 'a nice knock-down argument for you!'"

Alice objected.

"When I use a word," Humpty Dumpty said in a rather scornful tone, it means just what I choose it to mean – neither more nor less."

"The question is," said Alice, "can you make a word mean what

you want it to?”

“The question is,” said Humpty Dumpty, “Who’s master, that’s all.”

The reason this passage appeals so much to mathematicians is because they know that the purpose of a definition is not to discover what a word means, but to use a word to represent an idea. Much in mathematics depends upon showing that a particular definition is satisfied, that is, some set of objects possesses the properties associated with a name that encompasses them. Humans are the masters, not words.

Quotation of the Day: “I only took the regular course.”

“What was that?” inquired Alice.

“Reeling and Writhing, of course, to begin with, the Mock turtle replied:

“and then the different branches of Arithmetic – Ambition, Distraction, Uglification, and Derision.”

– Lewis Carroll: *Alice’s Adventures in Wonderland*