



The Solitude of Prime Numbers

Reviewed by Joel Spencer

The Solitude of Prime Numbers

Paolo Giordano

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Paolo Giordano's brilliant melancholy debut novel is a love story between two seriously flawed characters, Alice and Mattia. We follow them from childhood, through painful adolescence, the novel ending in still painful adulthood. Alice has extreme difficulty with relationships, though she eventually marries and finds a position she loves as a photographer's assistant. This reviewer, naturally enough, found Mattia more intriguing. Mattia is a mathematician.

Are mathematicians different from other people? Do they think differently? Do they act differently? Are their relationships with other people different from "normal" society? With Mattia one would have to answer yes to all of these questions.

The attempts of literature to capture the mathematical mind are usually so far from any reality as to be laughable to anyone in the field. The novel by Paolo Giordano is an exception. The biographical material states that he is a student himself in particle physics. Perhaps his own personal background allows him to write so convincingly.

With meticulous ritualism, Mattia copied out the proofs of all the theorems he encountered in his studies. Even on summer afternoons he kept the blinds lowered and worked in artificial light. He removed from his desk everything that might distract his gaze, so as

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to feel truly alone with the page. He wrote without stopping. [page 113]

That is not me. Maybe it is not you. But it rings true. Mattia works in number theory, more particularly on the Riemann zeta function. His love of the integers is reminiscent of Ramanujan:

Mattia liked to count, starting from 1 and proceeding through complicated progressions, which he often invented on the spur of the moment. He allowed himself to be led by numbers and he seemed to know each one of them. [page 114]

Mattia, examining a shelf of books, attempts to make a word from the first letters of all the titles. He stacks dishes, collecting them in the same order every evening. A coveted job offer arrives and he meticulously examines the logo on the letterhead. His apartment is spartan: "If he had simply upped and left the apartment that very evening and not come back, no one would have found any sign of his presence, apart from those incomprehensible pages stacked on his table" [page 185]. When he describes a breakthrough it is "as if he had performed this calculation hundreds of times, when in fact it was the first time he had pulled it out of his head" [page 197]. Sound familiar?

It is Mattia's inner life that is truly disturbing. More precisely, it is the absence of personal relationships in Mattia's life that is so difficult. Conversations with his father are strained, brief, and not informative. His mother, a character I wish had been more fully developed, is barely communicative. In adolescence, however, he meets Alice.

Twin primes (primes differing by 2, such as 101 and 103) are used as a beautiful metaphor for Mattia and Alice. Primes occur more and more rarely, so that each one is a gem. Usually they are in "solitude", far from other primes. They cannot

touch (except for 2, 3), as then one of them would be even. The closest they can be is two apart. Mattia and Alice are two rare spirits, almost but not quite touching.

Mattia and Alice would lie together on Alice's bed with their heads at opposite ends. They would bend their legs unnaturally so that their bodies would not actually touch. Mattia cannot, or will not, make an emotional commitment. He neglects to tell Alice of his graduation. When she appears anyway he "looked at her as one looks at a hallucination" [page 129]. He accepts a position abroad and has no contact with her for years. In the climax to this slender volume Alice sends him a photograph with the message "You've got to come here" [page 237]. Mattia arrives the next day. Their love for each other is profound, but will it be sufficient for these twin primes to touch?

This is a difficult book. Both Alice and Mattia suffer severe trauma in childhood. There are scenes of self-mutilation. There are scenes of intense embarrassment. There is a gaggle of adolescent girls of exceptional meanness. There is a marriage, Alice's, that does not go well. Yet I do think Paolo Giordano has done something rare. He has given his readers a glimpse into the mind of a mathematician.

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