

L o v e a n d G u t s

Adam Nieman on *GUT Symmetries* by Jeanette Winterson

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Jove has an affair with Alice, Alice falls in love with Jove's wife Stella. 'Not another menage a trois' I hear you cry. But in this story, by casting Jove and Alice as physicists, Jeanette Winterson explores aspects of the 'eternal triangle' which have been overlooked by other writers.

It is not, of course, physics itself that Winterson is interested in but the characters. She appropriates notions like grand unified theories and string theory and employs them to her own ends, expressing them in her own voice. This audacious move makes the book uncommonly compelling and insightful.

In a story like this we might expect the role of physics to be the stark backdrop to the emotional journey taken by the characters. This is how we have become accustomed to seeing science represented in fiction; its role is to provide contrast, to bring what is really important into relief. Think of *Star Trek* and the Yin/Yang relationship of Mr Spock and Dr McCoy.

Refreshingly, Jeanette Winterson's approach is more sophisticated than this. There is no binary opposition between rational science and the irrational emotional responses of the three protagonists. The way Alice (the physicist) and Stella (a poet) respond to their circumstances is contrasted in the book but not in the way we might expect. Neither character is a symbol or a stereotype. Both women are complex and whole, equally rational and equally emotional. Where they do differ is in the way they articulate their feelings - the imagery they use, the resonances they pick up. The overall effect is of two women blending into one. We get a single character with two voices and two histories.

Although the novel is about people and their relationships, it is in the physics that Winterson's self-assurance really shows through and her boldness pays off. There are three hurdles to forging a place for science in fiction; the least important of which is that it is hard to understand. The difficulty of science makes it hard to learn and hard to do but does not prevent aspects of it from being taken up by writers. As long as we do not expect to learn any physics by reading *Gut Symmetries*, understanding the details of string theory need not be a serious problem for Winterson.

The two remaining hurdles are that science is seen simply as a collection of facts and rules and that science remains the property of scientists who guard it jealously. The first point makes us wonder how the the author, if she does not understand what she is writing about, can hope to make it meaningful. The reason we ask this of physics and not other subjects stems from our notion of what science is.

The answer is that Winterson is not making physics meaningful, she is using physics to give meaning to her characters' experience. She 'borrows' physics in the same way as she also borrows the experience of Jewish immigrants in New York and borrows social relations in British industry. She cannot claim any special expertise with these themes any more than she can with the physics, but the reader has different expectations of such subjects. We do not expect to learn about them so much as to reassess what we feel about them.

But if physics is being used metaphorically, one would think the metaphor must surely fail because it would be an attempt to articulate a hazy idea in terms of something even more poorly understood. How helpful is it to the reader when Alice uses the Standard Model (a theory of the forces of nature) as a metaphor for her three-way affair? A menage a trois is a

fairly familiar situation that non-physicists are being asked to look at from a perspective which is totally alien to them (each lover is equated with the strong, weak or electromagnetic force). If physics is just a collection of facts that are either understood or not, then bringing these two ideas together will not lend anything to our understanding of the characters.

The fact that Winterson is prepared to use physics metaphorically implies a rejection of this view of physics. For her, ideas from physics are more than facts in the way that somebody's life history is more than a chronology. On whatever level it is understood, physics is evocative. To non-physicists maybe only the language is evocative, but at least the words are available even when actual knowledge and experience of the natural world is lacking.

So how can Alice's Standard Model metaphor be helpful to a reader unversed in physics? By making this comparison Alice demonstrates that the Standard Model is available to her, if not to anyone else, as a source of insight into her condition. This tells us about the kind of person she is and also upsets the binary opposition between science and emotion. To somebody familiar with it, the Standard Model could be a rich source of imagery with its associated notions of coupling constants, symmetries and spontaneous symmetry breaking. But for Winterson it is enough to simply hint that this richness is available to Alice.

This brings us to the question of ownership. The Standard Model is available to the fictional Alice because she is a physicist, but should Jeanette Winterson be playing around with it? In general, when we find science in fiction it is an 'authorised' version we get - one that mimics scientists' own stories. The main source of these stories is popular science books. These pass on snippets of science with instructions for use. From Paul Davies and Stephen Hawking we not only get insight into grand unified theories and black holes, we also learn what we are supposed to find interesting about them and how we are supposed to think about them. Non-scientists are told what they should find interesting. The theories belong to physicists and we are offered a glimpse of what they mean to them. But we are also told, 'You can look but don't touch. Only we can play with these.'

The reasons that scientists are more proprietary about their stories than other groups are complex but the main one is simple: non-scientists just do not have the technical ability to 'do' science. They can allude to it or retell the popularised versions they come across, but they are not in a position to add anything to the account or even to discuss what it ultimately means.

If Winterson were speaking about nature she could do no more than repeat an authorised version of the physics. But *Gut Symmetries* is not about nature or physics or string theory. Rather it explores, through string theory, how we understand three-way love affairs. Winterson can do this because string theory itself says nothing about love.

What Winterson demonstrates is that science is available to writers in the same way that other subjects are and that speaking with authority about nature is just one of the ways of speaking about science. I look forward to other writers also being bold enough to make science their own.