

Fringe UK-wide

Schrödinger

Genre: Physical Theatre Venue: The Old Market, Hove



Low Down

Let's start with Schrödinger.

What, Schrödinger as in 'cat'?

That's him. One of the main founders of Quantum Mechanics, the study of matter and energy at the sub-atomic level, where energy changes in jumps called 'quanta' and matter - electrons or photons - can manifest itself as particles or as waves, and often as both tangled together. Schrödinger's personal life was pretty tangled, too. So in this show, Reckless Sleepers give us a biography of a scientist and a lecture on atomic physics?

Not exactly ...

Review

In the beginning was the box. It filled two-thirds of the stage at The Old Market - rectangular, three-sided, with a roof and an open front facing the audience. It was dark grey, the colour of steel or of a blackboard, and throughout the performance it jumped between these possibilities. There was some furniture under dust-sheets inside, and a set of square white tables and chairs outside on both sides. Simple flat frontal lighting. That's all.

In the beginning was the woman. She came on stage, opened a door at the side of the box and stepped into the enclosed space. Weirdly, she immediately looked bigger - the low ceiling had given her the illusion of being taller. She began to make chalk marks on the wall, and suddenly a trapdoor opened in the roof of the box and a man's body fell through onto the floor. A square of light from the trapdoor illuminated her as she took her chalk and began to draw a silhouette around the corpse, like a police officer at a murder scene. Outside, another man drew a dead cat up high on the front side of the box, with a long downward-pointing chalk arrow leading to an apple that he placed on the floor.

"Toto, I've a feeling we're not in Kansas anymore"... Too true; we're actually somewhere far stranger than the Land of Oz - this is the quantum world, where different possibilities (waves or particles for example) co-exist until an observer makes a measurement, when the probabilities collapse to only one, which is the reality the observer sees. Schrödinger couldn't accept this interpretation of quantum mechanics, and used the 'cat' hypothetical example to show the paradox. As he put it:

'A cat is penned up in a steel chamber, along with the following diabolical device (which must be secured against direct interference by the cat): In a Geiger counter there is a tiny bit of radioactive substance, so small, that perhaps in the course of one hour one of the atoms decays, but also, with equal probability, perhaps none; if it happens, the counter tube discharges and through a relay releases a hammer which shatters a small flask of hydrocyanic acid. If one has left this entire system to itself for an hour, one would say that the cat still lives if meanwhile no atom has decayed. The first atomic decay would have poisoned it. The wave function of the entire system would express this by having in it the living and the dead cat (pardon the expression) mixed or smeared out in equal parts.'

According to common sense, the cat is either alive or dead, but according to quantum theory the cat remains, inside the box, neither dead nor alive until the observer opens the box. (Don't blame me - you're the ones who chose to read a review about Erwin Schrödinger...)

Reckless Sleepers know all this stuff, of course, but their production is anything but a boring lecture. The dead body in the box was quickly pulled out through another door, and the outside tables were pushed in through hatches in the side walls. It turned out that the entire box was perforated with doors, hatches and trapdoors, through which furniture and actors passed in and out with bewildering speed, and observers stuck their heads in to see what was going on within. There are five members in the company, two women and three men, and at times it was like a frenetic slapstick scene from a pantomime as they rushed in and out, clambered through hatches or fell in through the roof.

Another feature of the quantum world is called 'entanglement'. According to the theory, pairs of particles which have once interacted remain in some kind of communication, even though they might physically be light-years apart. It's a possible basis for telepathy and mind-reading, and a table was set up in the box with a man, head and shoulders completely covered in a white cloth, seated at it. He held up a series of cards with crudely drawn pictures of a heart, a hammer, a ladder etc, and was attempting to name them. Every answer was wrong - possibly because the particles weren't entangled enough... (or maybe because this was a scientific experiment rather than a music-hall stunt). In his cloth covering he reminded us of Magritte's surrealist paintings of shrouded lovers.

Wrong titles appear in a lot of Magritte's paintings - remember the pipe with 'this is not a pipe' written underneath. The shrouded heads, the enormous green apple filling a room, the bottles of wine; all these are referenced in 'Schrödinger's Box'. Magritte was Belgian, of course, and he seems to be a particular influence on Reckless Sleepers. The company is Anglo-Belgian, with Mole Wetherell, the Creative Director, having spent a lot of time in Belgium, and Leentje Van de Cruys and Leen de Wilde themselves being Belgian women. Alex Covell and Kevin Egan are British. All gave stunning performances - as expressive actors, but also for the sheer athleticism with which they clambered, dived and threw each other around the set. The name 'Reckless Sleepers' itself comes from a Magritte painting.

Brussels, in Belgium, was the location of the series of Solvay Conferences on physics which were held in the 1920s and '30s. The 1927 Conference dealt with theories of quantum mechanics. Schrödinger was present, along with Heisenberg (Uncertainty Principle) and Einstein (Relativity). The new physics, where effect does not necessarily follow cause and where each observer sees a different reality, challenged the 'classical' physics of Newton, where the whole universe ran like clockwork. These counterintuitive notions were snapped up by the Surrealists - think of those Magritte landscapes with a painting in the foreground - is the view behind the painting the same, we have no way of knowing... Reckless Sleepers also have been hugely influenced, and use these ideas to underpin this production.

So when Schrödinger (played with a lot of pathos by Mole Wetherell) drew his downward arrow towards a large green apple, there are references to the 'classical' gravitation theory of Newton (apples falling), to Magritte and Surrealism, but also to another fall, the Fall in the Garden of Eden, where an apple led to sexual desire - and of course to forbidden knowledge. In a particularly poignant section, Schrödinger shows a card with a heart drawn on it to one of the women, but she misses the meaning and repeatedly chalks 'mountain' on the wall as he tries card after card, all to no avail.

Schrödinger's life was as entangled as any particle. He and his wife Anny both had affairs, and he had the inspiration for an important quantum theory during an Alpine ('mountain'...) tryst with an old lover, which he later described as 'a late erotic outburst'. Schrödinger eventually had a child with Hilde, the wife of one of his assistants, and lived together with her, the child and Anny. With the rise of the Nazis in Germany they went to Ireland, where Schrödinger took a position at the Institute of Advanced Study in Dublin. The prevailing moral standards meant he couldn't go to the IAS at Princeton in the United States with 'two wives'. Two wives, like two quantum possibilities, but which one was 'real'?

We saw all these themes played out during the performance. A man and a woman, heads swathed in cloth, strain to embrace, only to be pulled apart. A man holds another, horizontal at waist height, only to drop him onto the floor dead. People go through repetitive sequences of sitting and standing with clockwork precision while one observer calls out numbers and another records them in chalk on the walls of the box. It's clear that the box is both the steel chamber of Schrödinger's hypothetical experiment and a laboratory room with blackboards for writing up data or equations. Interestingly, the box itself plays with our notions of reality. We are used to seeing theatre with the 'fourth wall' absent, but here the set itself represents a closed steel box. The actors never cross the open side, always using the doors and hatches, so for us the steel chamber wall both exists and does not exist - simultaneously. We as observers choose which 'reality' to accept. The production made us think a lot about this. The box is also very big in relation to the stage around it, and deep too, with parallel sides. It meant that none of us could see the entire action at any time - actors were hidden on the other side of the box from us, or shielded by a side wall. No observer sees the entire reality, and in fact each of us sees a different version. Einstein would have loved it.

The last section involved increasingly frenetic drinking bouts - clear bottles of (water?) gulped down and spilled over the actors, again and again. Manic chalking of graphs, symbols and numbers on the walls of the box as well. Not just a few, but covering almost every inch of the walls and doors with white marks, wiping some off and writing over the half erased lines. Water splashes erasing marks too. To me it seemed to symbolise meaninglessness, the futile attempt to understand concepts that our brains are not built to accept or visualise, and which can only be handled using mathematics. But we keep trying - the last chalking read: IT MAY SEEM TO YOU THAT WE HAVE DONE THIS FOR THE FIRST TIME

At the end, water poured through the roof of the box, soaking the actors and washing away the chalked symbols. Entropy is a concept of increasing disorder - the fact that systems tend to run down, from complex and ordered towards chaos and dull uniformity. I've never seen a better visual example. In fact, a lot of the imagery will stay in my mind for a long time to come. Schrödinger is not an easy production to watch, but it kept a large audience rapt for over an hour. You could have heard an apple drop...

Reviewed by Strat Mastoris 25th October, 2012

www.reckless-sleepers.co.uk