Lecture Entertaining science: I forgot to learn to forget

Cornelia Street Café, New York Dec 12, 2006 http://www.corneliastreetcafe. com/ A scientific lecture is rarely regarded as something fun. Scientists have the reputation of being serious intellectuals with little interest in the art of amusing the audience. There could be nothing further from reality, as the aptly titled Entertaining Science series prove repeatedly. These shows are the brainchild of Roald Hoffmann, skilled poet and Nobel Prize winning chemist. Every night has a theme, as diverse as "Naming Nature" or "Thermodynamics and the Purpose of Life", and blends in a relaxed environment science with any form of art inspired by it. The "scientific cabaret" takes place at Greenwich Village's Cornelia Street Café every first Sunday of the month. Since Entertaining Science started in 2002, the list of performers has grown to include famous names like Paul Greengard and Oliver Sacks, as well as jazz musicians, choreographers, sculptors, and even a theremin player, with Hoffmann acting as the Master of Ceremonies.

In the last show of 2006, David Sulzer curated a programme with the subject "I forgot to learn to forget". Dr Sulzer is an associate professor in the Departments of Neurology and Psychiatry of Columbia University, specialising in the study of dopaminergic neurotransmission and Parkinson's disease. But in classic Dr-Jekyll-and-Mr-Hyde fashion, he is also known as Dave Soldier, the avant-garde composer and performer at the helm of Mulatta Records. His many artistic accomplishments include directing an orchestra of Thai elephants and writing an opera with author Kurt Vonnequt.



Estefanïa Rodriguez

Violinist Rebecca Cherry and pianist Jerome Tan

The first part of the show was a lively appearance by Russian artist Vitaly Komar, creator with Alexander Melamid of a brand of pop art mixed with Soviet traditions called Sots Art. The dissident artists fled the USSR and established themselves in the USA, where they went as far as to buy Andy Warhol's soul in 1979 and sell it to the highest bidder. Komar described how he unconsciously associated a picture of the Yalta conference with one of his youth that he had forgotten existed, both integrated now in the painting called *Three Day Weekend*. His presentation was also a rare opportunity to see a Nobel laureate working the slide projector.

This was followed by a performance by Canadian violinist Rebecca Cherry and pianist Jerome Tan. They presented *The Unfolding Opium Poppy*, part of a project in collaboration with Dave Soldier that tells the life of a nineteenth century violinist and opium addict. It was followed by a vibrant rendition of the Beach Boys classic *Surf's Up* and a violin solo over a recorded piano version of Scott Joplin's *Maple Leaf Rag.* Both Joplin and Beach Boys' composer Brian Wilson had serious mental illnesses, which made the inclusion of the pieces even more relevant.

The final part of the evening was a neuroscience lecture for a lay audience in which David Sulzer explored the synaptic basis for concepts like soul and addiction. Dr Sulzer started by showing different historical attempts to define "soul", from Plato and Thomas Aquinas to a more contemporary view as a unique combination of personality and habits. He then presented his recent data on dopamine release from neurons and its effects on selecting specific cortical synapses using novel techniques of live imaging. Dopamine allows the synapses to be selected to form new habits, but maintenance of the habit does not require an ongoing dopamine stimulus after it is "set in stone". Sulzer suggested that addiction is not a deviant behaviour but the brain learning a habit exactly the way it is supposed to. He concluded that to go beyond a habit like drug addiction you have to actively learn to forget. Time restrictions did not allow the scientific part of the evening to go beyond a brief introduction of what looked like a promising theory.

True to the spirit of the series, it was a thought-provoking and eclectic show. Unfortunately, it resembled more a reunion of a secret society of friends than a show open to everybody due to the serious limitations of space and the cumbersome reservation system managed by the Café. The setting is no doubt cosy and charming, but the limited seats available and the abundance of guests prevents the interesting initiative of Roald Hoffmann to reach the wider audience it deserves.

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