

Children of an idle brain  
by  
**Mark Lythgoe**

Written for the National Theatre Programme of ‘A Dream Play’

A Dream Play

by August Strindberg  
in a new version by Caryl Churchill  
Director: Katie Mitchell

A dream about a girl from another world who comes to find out why people complain so much. Strindberg’s groundbreaking experiment in surrealism is performed at the National in a new version by Caryl Churchill.

A Dream Play runs concurrently with the exhibition August Strindberg, at Tate Modern from 17 February – 15 May 2005.

Director: Katie Mitchell  
Designer: Vicki Mortimer  
Lighting Designer: Chris Davey  
Choreographer: Kate Flatt  
Musical Director: Simon Allen  
Sound Designer: Christopher Shutt

Cast:

: Mark Arends  
: Anastasia Hille  
: Kristin Hutchinson  
: Sean Jackson  
: Charlotte Roach  
: Dominic Rowan  
: Justin Salinger  
: Susie Trayling  
: Lucy Whybrow  
: Angus Wright

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## Children of an idle brain

### Mark Lythgoe

There are a few things in life that are so universal and that we do with such regularity as sleep and dream. We spend almost one third of our life asleep and dream perhaps two hours every night. Even though it not known why we dream, scientific investigations of the human condition have allowed a small window into one of great mysteries of the mind.

In August 1997, a 73 year old woman, lets call her Kate, was admitted to a Swiss hospital following a stroke. On Kate's third night of convalescence she experienced a bizarre yet extremely vivid dream. "An unknown person shows me a huge piece of cotton, with lots of very colorfully dressed little men depicted on it. These dwarf-like figures are in different postures: some of them lie down; others sit or stand up. Later, the same person shows me a second, even larger piece of cotton with hundreds of little men on it. I am to find the group of men first shown but I do not succeed and I am upset."<sup>1</sup> This was Kate's last dream for three months, as part of her brain had become damaged by the stroke. Yet despite this total dream loss she showed no signs of any problems with her memory or any other mental abilities in the subsequent months after her stroke. To some scientists this may reinforce the belief that dreams do not have any major function and supports the notion that dreams just reflect random mental activity in the brain and really don't have a specific purpose of their own. However this may not be the whole story. Kate's sleep pattern seemed to be disrupted by more frequent awakenings than expected. One sleep researcher has pointed out that one of the oldest theories of dreaming is that dreams protect sleep, that is, if something threatens awakening, such as an alarm clock, you incorporate it into your dream to protect the continuity of sleep. Therefore, perhaps Kate could not safeguard her sleep as she had lost the ability to dream. These two possible theories highlight the great divide taken on notions of sleep and dreaming.

Each night our body clock triggers a battery of neurochemicals that act on our brain to take the unconscious mind on a rollercoaster of sleep stages. From REM (rapid eye movement) which is sometimes know as 'paradoxical sleep' because of the contrast between our sleeping body and our alert mind, to non-REM sleep, with a typical nights sleep consisting of four or five of these cycles. It would appear that dreams are not exclusive to REM sleep, as many believe, although the occurrence of dreams are more than in non-REM. Interestingly Kate could pass into REM sleep but never experience any dreams, which confirms studies that demonstrate that just because you are in REM sleep it does not mean you are dreaming. Yet there appears to be a relationship between the stage of sleep and nature of dreams experienced. Non-REM dreams often involve the more mundane or procedural day-to-day activities, whereas in REM sleep they are vivid, dynamic, bizarre and fantastical, and can be both strongly emotional and deeply irrational.

But why sleep at all? Isaac Asimov used to grumble 'I hate sleeping. It wastes time'. So why do we spend so much time doing apparently nothing? No one knows for sure why we sleep, but there are two possible contenders, that of restoration and adaptation. We know that if we are deprived of a nights sleep we feel exhausted and struggle with even the simplest of task, but spending days without sleep can lead to hallucinations, speech difficulty, irritability, fragmented thinking, loss of expression and paranoia. It would appear that the mind needs sleep to restore its equilibrium and sanity, via repair and rest, otherwise it will deteriorate. Or perhaps we have developed our pattern of sleeping at night because of a need to conserve energy or protect ourselves. The latter theory of adaptation has been questioned and more recently sleep has been associated with increased learning and creativity. Have you ever found the solution to an unresolved problem during your sleep? There are legendary accounts of innovations following sleep and dreaming in both science and the art, such as the periodic table by Mendeleev and the epic poem Kubla Khan by Samuel Taylor Coleridge, which suggest that these states may play a role in insightful behaviour. As it turns out,

this may actually be the case as recent scientific evidence suggests that sleep can stimulate our creative thinking.

So do these insights into why we sleep help us to understand why we dream? As with sleep there are many competing theories. Some suggest that dreams are just an epiphenomenon, that is they have no adaptive function, as suggested by Kate's story. Or perhaps dreams help us to deal with threats by allowing us to rehearse various scenarios in a safe environment, or my favorite, dreaming as play, in which we practice all our physical, intellectual and social skills. Finally as the neurobiologist would have us believe, that we prune our neuronal connections to remove the unwanted detritus in our mind. That is, we dream to forget.

I think I'll sleep on it.

#### Acknowledgement

I would like to thank Robyn Haselfoot for her contribution to the research and helpful comments and suggestions. <sup>1</sup>Matthias Bischof. Ann Neurol. 2004.

#### Biog:

Dr Mark Lythgoe, is a Neurophysiologist and lecturer in Radiology and Physics at the Institute of Child Health and Great Ormond Street Hospital. Mark uses Magnetic Resonance Imaging (MRI) for developing new techniques to investigate brain function.

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