

## Video Report #2

In the documentary, it seems that Professor Uner Tan takes the analytical approach whereas Neuropsychologist, Nicholas Humphrey takes the structural approach. Professor Tan believes that a faulty gene is the cause of the quadrupedal movement. In his approach, Professor Tan's and his wife Melia, who is a neurologist, analyzed the quadrupedal siblings by testing their abilities to complete simple tasks. From their analysis, they noted that the affected siblings had problems with speech and dexterity and the tests they conducted confirmed that there was something wrong with their brains. Professor Tan concluded that the siblings were mentally retarded and had limited language skills and limited manual dexterity. He claimed that the siblings were very similar to our human ancestors. He gave the condition the name Unerten Syndrome. In Nicholas Humphrey's approach, he considers many more things in his approach. He looks for external factors that may have caused the abnormality. He considers things like upbringing, experiences, and culture.

When addressing the question of which is the best approach in this case, I believe that neither can be said to be better than the other. I believe that both approaches need to be considered in order to effectively determine the cause. Each approach has their pros and cons and I think that values are very influential when scientists decide which approach to take. Each scientist is going to have values that influences their approach which is why I think that scientists should not have to choose one approach over the other. I believe that we can combine the two approaches. A united approach will consider both internal and external factors, and thus allows for more thorough and complete analysis. For example, in the documentary, there is a lot of data gathered from the analytical approaches that may indicate the underlying cause of the quadrupedal movement. There were MRI brain scans and gene analysis but this data was not conclusive. If we consider what Dr Humphrey's analyzes in the external factors along with the analytical data, a more conclusive hypothesis can be formulated by intermingling more relevant information into the process.

Overall, I believe that this documentary shows how both internal and external factors are crucial when conducting science. The documentary showed that internal factors such as an abnormal cerebellum or gene mutation was not deterministic as the cause for the quadrupedal trait. The gene mutation was not deterministic because the mutation was shared with a bipedal sibling. The abnormal cerebellum was not deterministic because another study proved that bipedal movement was possible without a cerebellum. These findings allowed for external factors to be considered in this particular case which led to the parallel bars being installed for the quadrupedal siblings to practice bipedal walking with. The parallel bars proved to be very helpful in promoting bipedal walking in this case. The affected siblings made significant progress with the parallel bars which indicates that they may have never been taught to walk on two feet. Nonetheless, this study is a great example of why all relevant factors must be considered when doing science. It shows that external factors such as upbringing, environment, and culture can play a factor in abnormalities in human behavior not just our biology or natural hardwiring.