



Exploring Psychology

Exploring Psychology: Twins 3

Narrator

Nancy Segal has studied these twins in some depth, at the University of Minnesota. How does she explain the similarities between them?

Nancy

Barbara and Daphne seem to have an intuition, and intimacy, a rapport, a very close understanding of one another, that really evolved quite quickly. That might take many people a long time to develop and humour was a bit part of it and no-one quite understood what about their interaction set this laughing off. But they both said that with other people it never happened. But when they were together, something about their interaction just triggered the scale of giggles. The issue here is that identical twins raised apart of course share no environments in common. But when it comes to personality, they are as alike as identical twins raised together, now that is a somehow counter intuitive finding because one would think that if you're with somebody, you should be more like them. But what this is telling us is that the reason identical twins are so similar is not because of their shared environments but because of their shared genes. Now, we still need to account for the other 50%. And we suspect that is explained by differences in their environments. What we call the non shared environment. And that's why the similarity is only 50% and not 100%. Because the environments even of twins raised together, is not exactly the same. There maybe minor differences, maybe even associated with pre-natal differences. That might make one a little more outgoing, one less so. Maybe one twin had an accident or an illness. Amazingly, if you think about the conjoined twins, the twins who failed to separate entirely at birth, they have very different personalities and very different environments. And yet again this is somewhat counter intuitive to our thinking. But when you talk to these twins and really ask them to closely outline their environments for us. They will tell you that they are quite different. As an example, I interview one such pair. Where one went to college and the other one did not. These were conjoined twins. And the one who did not go to college said that she simply sat in the classrooms and thought of other things. So when you think these things through a little bit carefully, I think you can see that the environments of identical twins are not exactly the same. Now when you think about reared apart twins I think that's what's happening here, that within the range of their different environments, the twins are selectively seeking out or gravitating towards similar things in their environment. That I think would explain why for example, we found two twins who were avid readers. In fact they were from the UK. One twin came from a home with a lot of books. The other one came from a home with very little. Both twins, however, were great readers and had even read the same kinds of books because one went to the library, so she in a sense created or fashioned her own environment. I think we have a lot of research left to do in apportioning genetic and environment factors, with respect to behavioural traits. And the reason I say that is twofold. First with the human gene own project coming to a conclusion near in time. We will be better positioned to associate various genetic factors with certain behavioural traits. Secondly, we don't know a lot about what environment factors are relevant for behavioural development. We can say now 'Yes, this is shared. This is non-shared.' But what is non-shared. Is it the school? Is it your friends? Is it the books you read? Is it the accident? Is it the contest you just won? What is having the effect? So we have a long way to go for better understanding of that set of influences.