

## Science of Love

(Part 3)

**Megumi:** Well, I'd like to give an explanation from genetics. According to this theory, we are attracted to people who have different types of genes from our own. This is because the immune system gets stronger if different types of genes are combined. In other words, a woman is more likely to have a healthier baby by choosing a man whose genes are different from hers.

Now let me introduce one study that supports this theory. Claus Wedekind, a Swiss researcher, carried out an experiment called the "Sweaty T-Shirt Study." He conducted the experiment using 49 women. The women smelled T-shirts previously worn by 44 unknown men for two days. Those women were then asked to indicate which T-shirts they were most attracted to. As you can see in the figure, the upper bar is about 1.5 times longer than the lower bar. That shows us the women were more likely to choose the smell of T-shirts worn by men who were most genetically different from themselves.

**Garcia:** What an interesting experiment! What Megumi is saying is that according to this theory, genes determine our preferences in choosing a partner. Thank you, Megumi. Now, let's listen to what Beth has to offer.

(Part 4)

**Beth:** OK. I'll introduce a theory from biology. Helen Fisher, an American researcher, says chemicals in the body may cause love. She compared parts of the brain of people in love with those of people not in love. She found that a lot more dopamine was released in the brains of people who were in love. Dopamine is a chemical which is produced when we do something exciting or enjoyable. It plays a key role in controlling people's moods and body movements. From this result, Helen came to the conclusion that we are literally "on a high" when we are in the initial stage of falling in love.

Now I'm going to tell you a little bit about the next stage. After the first stage of passionate love, the levels of dopamine eventually start to decline. During the next stage, a chemical called oxytocin plays an important role. Oxytocin is produced when we feel a connection with others, like kissing someone or hugging a child. When oxytocin is produced frequently, couples feel closer to each other and their relationship can last longer.

**Garcia:** So, in short, Beth is saying, chemicals make people fall in love, and make love last for a long time.

We have just heard three theories from different research fields that provide different viewpoints on love. Which theory do you think best explains why we fall in love? One thing we know for sure is that, like the title of the famous song says, we "can't help falling in love."