Transcript for **Can dogs sense emotion?**

Professor Daniel Mills: One of the things that a lot of people comment on is that dogs seem to be naturally attuned to them and be able to sense their moods and whatever. Part of our work here is actually to look into the scientific basis of that.

Narrator: The key to a dog's ability to read our emotions might lie in something we all do without knowing it.

Professor Daniel Mills: When we express our emotions in our faces we don't do it symmetrically. It's been shown that if you take somebody's face when they're expressing some emotion, like happiness or anger or something like that, there is a difference between the left and right side.

Narrator: Composite faces consisting of two right or two left sides look very different.

Professor Daniel Mills: One of the theories is that maybe our emotions are more faithfully presented in the right side of our face and that's the side that we tune into. And when we look at a face, we have what's known as a natural left-gaze bias. So you naturally look much more towards the left, i.e. the right-hand side of somebody's face.

Narrator: Eye-tracking software has demonstrated that when presented with a human face, we nearly always look left first. Daniel Mills wanted to find out if dogs use the same trick to read human faces.

Professor Daniel Mills: Shifting the direction of your gaze we thought was fairly unique to people until we started looking at dogs.

Narrator: To test the theory, his team recreated this experiment with dogs.

Scientist: Muz, what's that?

Narrator: They presented a series of images showing human faces, dog faces and inanimate objects, and recorded the direction of the dog's gaze with a video camera.

Scientist: (whistle) We found that dogs when they are looking at pictures of dog faces or objects, they will look randomly on the left or the right.

Narrator: But when it came to human faces, they made a remarkable discovery.

Scientist: So now we have Taz looking at a human face. So first she's looking in the middle of the screen. And here is the first eye movement on the left. She's in the middle and she's going on the left. And then the dog is going to be even more on the left. So now this is Muz, and then we can see really well that this is a left gaze. From here to here, we can see the white here. She's even moving her head.

Narrator: As far as we know, no other animal has this relationship with the human face. Dogs don't do this with each other. Incredibly, it seems they've acquired a new skill to enable them to read our emotions.

Professor Daniel Mills: Being able to detect when somebody is angry or potentially going to be harmful to them, you could understand that there may be a biological advantage in being able to read people's emotions. And equally, it makes sense for a dog to approach somebody when they're smiling. If dogs can read human emotion, and increasingly the scientific evidence is beginning to point in that direction, that's going to form the basis of a very strong bond between human and dog.

Narrator: Evidence like this appears to underpin our conviction that dogs understand us in a way that other animals cannot.