

WHITE EYES

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SCENE 1. IN A BUILDING (ETLC).

Student walking by windows

STUDENT

Hi there. Welcome to EP online.

Have you ever wondered why humans have more white showing in their eyes than many other species? Not exactly sure what I'm talking about?

Student stops walking

Here, take a look at my eyes...

CLOSE UP OF STUDENT'S EYES AND THEN PANS OVER TO DOG'S EYES.

...Now have a look at some pictures of other animals with darker eyes.

BACK TO SHOT OF WHOLE STUDENT

Student continues to walk and stops and leans on window sill

Even compared to most of our close primate relatives, our eyes are pretty unique.

Researchers in Germany may have an answer as to why this is. They call it the "cooperative eye hypothesis". The idea is that the contrast between our sclerae and irises allows for easier tracking of eye movements. Non human apes have a harder time seeing each other's eye movements because they lack this contrast.

So you'd think that human infants would use eyes as a cue to direct attention more so than apes because of this difference. They conducted a very simple experiment to test this idea.

END SCENE

SCENE 2. CAMERA IS FOCUSED ON A TABLE WITH STUFFED ANIMALS ON IT.

Student walks to the table and sits down.

CAMERA ZOOMS IN

Here's how it went. The experimenters  
sat down in front of human infants  
and primates

... and tracked their gaze as the  
experimenter acted out a series of  
head and eye movements.

What they found was that human  
infants were more likely to follow  
the experimenter's gaze if their eyes  
moved.

Wags finger in front of eyes to indicate eye movement while holding  
up the doll

... But the primates, on the other  
hand, followed the experimenter's  
direction of attention if they moved  
their head.

Shakes head left and right, and nods up and down while holding the  
gorilla

Awesome. Just as predicted.

END SCENE

SCENE 3 - SHOT IS IN FRONT OF STUDENT (ABOUT 10 FEET IN BETWEEN),  
KEEPING PACE WITH STUDENT

So maybe, through evolution, white eyes were selected for because our white-eyed ancestors were better able to communicate.

Non verbal communication is actually fairly important to understand the information that is being given to us through words.

Stop walking

CAMERA ZOOMS IN FOR A HEAD SHOT

For example, if I were to say "hey look over there," without moving my eyes, you'd be fairly confused. Now if I were to move my eyes and say "ppst! look over there"...

CAMERA "LOOKS" IN DIRECTION THAT STUDENT LOOKED (AT MONKEY) AND  
"LOOKS" BACK TO STUDENT.

See how much easier that was to understand?

END SCENE

SCENE 4. SCENE IS AT A RAILING. STATIONARY WAIST UP SHOT

leaning on railing.

It is quite possible that having white eyes then became useful in other social situations as well. Altruism may have been one of them. Undoubtedly, as humans lived in larger groups, prosocial behaviour towards others would have become more important. Now like I said before, the high contrast between the sclerae and iris of our eyes makes it easy to know where someone is looking. If you know someone is looking at you, you may be more altruistic in order to prove you're worthy of help in the future.

As it turns out there may be something to this. When people are faced with what looks like human eyes like this...

Pull out picture of eyes used in the experiment from coat pocket and hold it in front of self

...on a computer screen while playing a game, they tend to be more generous than if they saw no eyes...

Flips over the paper to the blank side

...or eyes that were placed vertically.

Flip the paper back over and turns it on its side

Interesting eh?

END SCENE

SCENE 5. SHOT IS IN FRONT OF STUDENT (ABOUT 10 FEET IN BETWEEN),  
KEEPING PACE WITH STUDENT

walking

So is that the answer then? Did it  
all stem from communication?  
Evolution is a complex process and so  
if you ask me, there are probably a  
whole bunch of reasons why we look  
the way we look today. We may never  
really know the answer for sure but  
bringing all the pieces we can  
together will give us a better  
picture of the evolutionary history  
of our human species.

Stop walking

That's it for EP online. Thanks for  
watching.

END SCENE.