

3D TV may be the victim of negative preconceptions

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An academic from Newcastle University, UK, has led a lab-based research, involving 433 viewers of ages from 4 to 82 years, in which participants were asked to watch Toy Story in either 2D or 3D (S3D) and report on their viewing experience. The objective of the study was to investigate visual discomfort in relation to 3D display technologies, as well as to determine the impact of people's preconceptions on their experience of 3D TV. It's no secret that the format hasn't taken off in the way many had anticipated.

Research participants were asked to rate their [viewing experience](#) according to a number of parameters and soon it emerged that those watching three-dimensional content had a significantly higher incidence of adverse effects than their 2D counterparts. The team suspected that this might partly reflect a 'nocebo effect' – 'an intrinsically harmless substance or procedure causing [adverse effects](#) due to negative expectations'. To shed light on the matter, the team devised a harmless ploy; two-dimensional content was shown to a number of viewers expecting to watch a 3D movie, and results were then compared with those from the 2D group. The outcome corroborated the researchers' suspicions, confirming that, when it comes to 3D TV, some people approach it with a jaundiced eye.

This fascinating new study confirms watching S3D television can cause discomfort to a small number of viewers, but why this is so remains unclear. "When cinema was first introduced, people found that very disturbing, and yet nowadays we all watch it happily," says Jenny Read,

one of the authors of this research. "There is a kind of circular effect - as the technology gets better, people will use it more."

The future may be looking brighter for S3D TV.

More information: "User experience while viewing stereoscopic 3D television," Jenny C.A. Read & Iwo Bohr, *Ergonomics*, 2014, 57 (8), www.tandfonline.com/doi/full/10.1080/00140139.2014.914581

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