Analog versus digital: How human perception adapts to new film aesthetics

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The digital revolution changed film production in many ways. But so far, nobody has compared complete narrative films captured with analog and digital cinematography empirically. In two cinema experiments (356 participants in experiment 1, 137 participants in experiment 2), we tested whether digital and analog recording methods are perceived differently. Eye tracking analysis of 67 participants was carried out to compare the perception of typical film scenes. The two capturing technologies produced similar emotional and immersive experiences during digital projection. The study revealed significant differences in the memory of visual details with higher recall scores for the digitally captured versions. Moreover, the mechanical projection of celluloid film produced higher levels of emotional reactions. New possibilities of analyzing film perception are discussed.