What would Jaws do? The tyranny of film and the relationship between gaze and higher-level

comprehension of narrative film.

Lester C. Loschky, Kansas State University

Adam M. Larson, University of Findlay

Joseph P. Magliano, Northern Illinois University

Tim J. Smith, Birkbeck University of London

Abstract: What is the relationship between film viewers' eye movements and their film comprehension? Typical Hollywood movies are "tyrannical" in that they induce strong attentional synchrony—namely, most viewers look at the same things at the same time. But does this indicate that viewers also understand films similarly? To investigate this question, we manipulated the presence/absence of prior film context and measured resulting differences in film comprehension and eye movements. Viewers watched a 12-second James Bond movie clip, ending just as a critical predictive inference should be drawn that Bond's nemesis, "Jaws," would fall from the sky onto a circus tent. The No-context condition saw only the 12-second clip, but the Context condition also saw the preceding 2.5 minutes of the movie before seeing the critical 12-second portion. Overall, there was strong attentional synchrony in both viewing conditions. However, the No-context viewers were less likely to draw the critical inference, were more likely to consider the first shot of the circus tent to be a new event, showed less attentional synchrony during the first circus tent shot and had a greater probability of fixation in the first circus tent shot. Thus, despite Hollywood films' "tyrannical" control of viewers' attention, subtle differences in viewers' eye movements can indicate important comprehension differences. These results suggest the need for a theory that encompasses processes from the perception to the comprehension of film.

Keywords: eye movements, visual attention, film perception, film narrative comprehension, inferences, event segmentation