et al., 2015), subsequent fixations are more likely located near the center. Hence, only after about 2 s the initial CFB disappeared and fixations were randomly distributed on an image in our experiments. The reason for this reduction, however, remains unknown. Since our manipulation changed the initial saccade latency and reduced the early CFB, the CFB could be a result of an orienting response due to a luminance change or a result of an initial fixation near the center for fast extraction of the gist (Tatler, 2007).

Computational models that aim at predicting the allocation of visual attention on an image are based on the extraction of image features (Itti et al., 1998; Borji & Itti, 2013) and top-down cognitive processes (Navalpakkam, Arbib, & Itti, 2005; Cerf, Harel, Einhäuser, & Koch, 2008). These models are evaluated by comparing human fixations to a weighted distribution of different influences (Bylinskii et al., 2015; Borji & Itti, 2013; Le Meur & Baccino, 2013; Borji, Cheng, Jiang, & Li, 2015). Although bottom-up and top-down influences as well as a combination of the two can predict human fixations (Bylinskii et al., 2015), the CFB is a strong predictor that improves goodness-of-fit more than any other single feature (Judd, Ehinger, Durand, & Torralba, 2009; Bylinskii et al., 2015). Therefore, most static visual attention models rely heavily on the implementation of a CFB (Kümmerer, Wallis, & Bethge, 2015). The early CFB during scene viewing seems to be an automated, stereotyped response of the saccadic system to a sudden image onset. It masks other bottom-up and top-down factors of saccade target selection and its strength critically depends on the duration of a trial since it primarily affects early fixations. Therefore, a reduction of the CFB during scene viewing, as generated by our paradigm, provides a better understanding of target selection and a more rigorous test of visual attention models than the original scene viewing paradigm. At the minimum, the latency of the first saccade needs to be taken into account, since it strongly influences subsequent viewing behavior.