Sometimes we are forced to make decisions in situations where all the options are unpleasant. In these cases, how is our decision affected by attention? We investigate whether attentional choice biases are similar in choices between gains and between losses. We use an eye-tracking experiment with binary choices between lotteries in two conditions: (1) where the outcomes of the lotteries are positive, and (2) where the outcomes are negative. Contrary to the predictions of the Attentional Drift-Diffusion-Model, we find attentional under-weighting of fixated options in losses and over-weighting in gains. These results suggest a difference in the role of attention in gains versus losses.