Choice Awareness and Manipulation Blindness

A cognitive semiotic exploration of choice-making and memory

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"Blindness" to choice is widely considered to be part of human cognition, designating unreliable agents who essentially lack choice awareness (e.g. Johansson et al. 2005; Hall et al. 2012; Sagana et. al 2014; Cochran et al. 2016). The cognitive semiotic approach, however, encompasses a variety of factors that may influence our choice-making, and acknowledges different degrees of awareness. Manipulation blindness is a more adequate term for what is known in the literature as "choice blindness" (e.g. Johansson et al. 2005; Hall et al. 2012; Sauerland et al. 2013a; Sagana et. al 2014; Cochran et al. 2016).

We argue that participants' tendency to accept a choice that is presented to them as if it were their own is not explained by them being "blind" when making the choice, but because they did not detect (or at least object to) the switch of the preferred choice to a non-chosen one. In order to examine manipulation blindness as an "indicator" of conscious choice awareness, we investigated the factors of memory, consequence, and affectivity by using pictures of human faces and abstract figures, implying that if these factors influenced the detection of manipulation, then we could argue for different degrees of choice awareness.

Forty-three participants were assigned two tasks combining choices with 1) two degrees of consequence (more/less) – based on task instructions, and 2) two degrees of affectivity (high/low) – based on stimuli with different degrees of abstractness. Participants were first asked to state their preference for one of two alternatives *(choice)*. After that they were shown chosen as well as non-chosen pictures and asked to confirm whether the picture presented was the one of their choice *(memory)*. Lastly, they were asked to justify their choice, although some of the trials had been manipulated (i.e. the chosen card was switched with the non-chosen one) *(manipulation)*.

Half of the manipulations were detected, and 75% of these detections occurred for the choices participants remembered correctly. While the consequential impact of the choice did not seem to influence detection, the affective valence and pictorial status of the stimuli contributed to manipulation detection for both the remembered and misremembered choices. Unlike other experiments that investigate "choice blindness", the results indicate that manipulation blindness is subject to memory and affectivity, suggesting that we are aware of our choices and that we have, to various degrees, access to our intentional acts.

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