DEBRIEFING FORM

Project Title: Mechanisms of Attention
Principal Investigator (PI): Dr. Dana Hayward (dana.hayward@ualberta.ca)

Thank you for your participation in our study. Your time and commitment to psychological research at the University of Alberta is greatly appreciated. Although there has been much research investigating the ways in which people pay attention, there is still much that remains unknown. For example, researchers have found that people pay attention to (i) regions of space (Posner, 1980), (ii) specific objects (Lavie & Driver, 1996), and (iii) moments in time (Hayward & Ristic, 2016); however, attention does not always prioritize one method over another. Likewise, some investigations have found that people prioritize certain content (social faces, reward information, etc.) more than other, nonsocial content (e.g., Anderson et al., 2011; Friesen & Kingstone, 1998; Hayward et al., 2018), yet this isn't always the case (e.g., Vecera & Rizzo, 2006; Tipples, 2008). Further, while some theories have been put forth to predict level of distractibility based on perceptual features in the environment (e.g., Load theory, Lavie & Tsal, 1994), this theory has recently come under criticism (e.g., Benoni & Tsal, 2010). Thus, the proposed line of research is designed to get a better sense of the mechanisms underlying attention and distraction.

The goal of the current study is to determine whether the social value of an object influences how we pay attention to that object, and if we pay attention to certain objects as much as we pay attention to human faces. We postulate that some objects may communicate information about an individual's identity, whereas other objects may convey information about social events. Conversely, we hypothesize that other objects may not hold any social value. As a result, we asked you to click on targets where one fourth of the targets were objects that are typically affiliated with certain "groups" of people, another fourth of the items were objects that are commonly associated with social situations, another fourth were objects that are generally not unique to social situations or specific groups of people, and the final fourth were human faces. Additionally, within each trial, a "distractor" object appeared either across or beside the target, and the distractors belonged to the same four groups as the targets. We recorded the time it took for you to click on the target object as well as the movement of your mouse. If individuals attend to "social" objects more than "non-social" objects, then we can expect that individuals will click on the "social" object faster when a "non-social" object is the distractor than when a "social" object or face is the distractor. Moreover, we can expect that your cursor will not move towards the "non-social" distractor, but may move towards the "social" object or face distractors. Additionally, if individuals pay attention to "social" objects in the same way that they attend to faces, then we expect that the participants' reaction time and mouse movements will not be significantly different when the target/distractor is a "social" object or face. We then asked you to declare whether you recognized the objects that were used as targets and distractors; we did this to ensure that the participants were familiar with the objects. Finally, we then asked you to complete the Autism Spectrum Quotient (AQ) in order for us to assess if/how autism traits relate to one's performance in this study. Note that this is basic research and can in no way be used for diagnostic or evaluation purposes. You will not be given feedback about your responses.

If you have any further questions about this research, please do not hesitate to contact the PI, Dr. Dana Hayward, at dana.hayward@ualberta.ca. If you would like to withdraw your data from the study after testing is completed you may do any time up until 7 days after your testing session was completed. This can be done by contacting the PI. If you have any questions about research participation, contact our Research Participation Coordinator at (780) 492-5689, or rescred@ualberta.ca.

For further reading on similar issues, you may want to consult these interesting articles:

Langton, S.R.H., Law, A.S., Burton, A.M., & Schweinberger, S.R. (2008). Attention capture by faces. *Cognition, 107,* 330-342.

Doherty, B.R., Patai, E.Z., Duta, M., Nobre, A.C., & Scerif, G. (2016). The functional consequences of social distraction: Attention and memory for complex scenes. *Cognition, 158*, 215-223.

Thank you very much for participating. Without the help of volunteers like you, we could not answer many important scientific questions in psychology. We have one last request: **Please don't tell other people about what we asked you to do in this study, as it is very important that they approach the study as you originally did, i.e., without expectations and without full awareness of our objectives.** This is important because it is the only way we can obtain objective and valid information.

Yours truly,
Dr. Dana Hayward
Assistant Professor