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# Eye movements reveal the effect of branding on consumer decisions

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**Objective:** Product branding is a crucial dimension of consumer choices. Recent work has suggested that branding information and subjective product preference may be integrated into a single source of evidence in the decision-making process. Here we investigate how exactly these two sources of information are combined, by employing the attentional drift-diffusion model (aDDM) to relate choices and reaction times to the relative gaze time on the two products and their brands.

**Methods:** We carried out an experiment in which subjects made a series of hypothetical preference decisions between two items of clothing paired with different designer brands. In control trials subjects also made preference-based clothing decisions, but with phase-scrambled brand images. While subjects made these choices, we tracked their eye-movements. Beforehand we also collected separate individual ratings for each clothing item and brand. We then used subjects' ratings and gaze patterns as inputs to the aDDM to test whether these measures alone could account for subjects' choices and reaction times.

**Results:** Using the aDDM we were able to accurately predict the influence of gaze time on the probability of choosing the left or right item. Comparing the intact brand trials to the scrambled control trials, we find that subjects spent more time looking at the brand information, took longer to make their decisions, and were more likely to choose an item if it was paired with a preferred brand. Furthermore, we were able to use the aggregate fraction of time spent looking at the brands to predict the average influence of the brand ratings on subjects' choices. This relationship was further established with a significant across-subject correlation between brand gaze time and brand weight in their utility functions. Finally, consistent with previous aDDM findings, we observed no correlation between item or brand ratings and gaze duration.

**Conclusions:** Our results indicate that branding information and subjective product preference are combined together in a multi-attribute drift-diffusion model, where the relative weights on the two attributes are determined by the gaze time on the product vs. brand. These findings lend further support to the aDDM as a common mechanism underlying value-based decisions and are consistent with the hypothesis that in binary choice, attention leads to preference, and not vice-versa.