

7.2 Cognition and Behaviour lab (COBElab), Aarhus, Denmark

Cognition and Behaviour lab (COBElab) aims to measure behaviour using emerging technologies for collection of consumer data. It offers a place to conduct controlled experiments with consumer participants. Experiments in lab typically involve activities such as eye tracking, decision tasks, and basic, interactive games. The ultimate goal is to explore the choices people make and how they think and perceive stimuli in their environment. COBElab has been one of the first facilities to use eye tracking on studying how consumers pay attention to different features in food packaging and whether the attention is linked to choice decisions in experimental choice studies. The COBElab is actively used by the whole BSS faculty.

Important theoretical and methodological foundational elements in approach: Visual attention is an integral part of decision making. By measuring eye movements, we gain insight into the consumer decision process and can identify important elements such as screening of product options, comparisons, and re-evaluations.

Device requirements and guidelines:

<https://bss.au.dk/en/cognition-and-behavior-lab/for-researchers/labs-equipment>

The use of the COBE Lab requires training and following of our research procedures for planning, conducting and completing the studies. The planning stage comprises of submitting certain standardised forms and ethics checklist. Only after the approvals are received from the planning stage, the project can be considered active and data collection can begin. The equipment from the COBE Lab is presented on our lab's [webpage](#), which can also be accessed through the [COMFOCUS Virtual and Transnational Infrastructures](#).

Any specific requirements for the equipment or the use of COBE Lab can be discussed prior to arrival. The harmonised guidelines for emerging technologies available on the COMFOCUS website, give more details around various factors that need to be considered in studies using such technologies. Moreover, there are harmonised self-reported measures within COMFOCUS that can be used in the studies.

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Eye tracker device	
Way the object of research is represented in design	<p>Consumers are regularly faced with product assortments of several hundred products. Unfortunately, consumer research on such many-alternative choice situations has been lacking. In this research, consumers are presented with 25-60 products from relevant food categories while their eye movements are measured. The studies aim to identify stages in the consideration set formation.</p> <p>Relevant previous studies: Edenbrandt, A. K., Lagerkvist, C. J., Lüken, M., & Orquin, J. L. (2022). Seen but not considered? Awareness and consideration in choice analysis. <i>Journal of choice modelling</i>, 45, 100375. Reutskaja, E., Nagel, R., Camerer, C. F., & Rangel, A. (2011). Search dynamics in consumer choice under time pressure: An eye-tracking study. <i>American Economic Review</i>, 101(2), 900-926. Thomas, A. W., Molter, F., & Krajbich, I. (2021). Uncovering the computational mechanisms underlying many-alternative choice. <i>Elife</i>, 10, e57012.</p>
Overall research question	<p>Research question (positions 11 - 14) <i>How do consumers search and screen out product options in large product assortments?</i></p>
Key dependent outcomes	<p>Visual attention to product options Product choice</p>
Complementary measures / self-reports	<p><i>For all self-report measures, use harmonised measures of COMFOCUS if available.</i></p>