



THE LONDON SCHOOL  
OF ECONOMICS AND  
POLITICAL SCIENCE ■

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**“IT’S LIKE A CONTINUUM OF EXPLICITNESS”**

USING SUBJECTIVE EVIDENCE-BASED ETHNOGRAPHY TO INVESTIGATE  
THE EXPERIENCE OF DECISION-MAKING IN EVERYDAY LIFE

*MSc Dissertation*

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*“I have a mental representation of something I’ve decided to achieve and then, I don’t know, I just follow my instinct and the natural process of doing it.”*

- Maxim, male, 22

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# USING SUBJECTIVE EVIDENCE-BASED ETHNOGRAPHY TO INVESTIGATE THE EXPERIENCE OF DECISION MAKING IN EVERYDAY LIFE

*MSc Dissertation*

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## ABSTRACT

Decision making plays a key role in everyday life. Although studies provide extensive explanations on experimental design, their tasks lack the realism required to engage real world contexts and natural activities. The key assumption is that decision making patterns in everyday life are determined by difficult to observe features which emerge in natural settings. To gain a deep understanding of the extent to which different types of decisions are involved and experienced in everyday life, a naturalistic study of human behaviour within realistic situations is required. Recognising such need for a deeper understanding of decision making, this research utilised Subjective Evidence-Based Ethnography (SEBE) to investigate how decision making is experienced by individuals as they engage in its various forms throughout their everyday life. To this end, miniature video cameras worn at eye-level, called subcams were used as part of the SEBE protocol to record audio-visual material (subfilms), enabling a naturalistic and contextualised observation of participants as they engaged in their typical everyday activities. Over *61 hours* of interviews and ethnographic video recordings of typical days was collected from a sample of young adults. Findings suggested that participants deliberately and consciously decide over a final desired/required state and then rely on a channelled flow of a sequence of goal/motive-oriented actions for the process of reaching the chosen state. How regulated such an activity process is determines how explicit participants experience making a decision. Findings further suggest that decision making is experienced by the actor as a continuum of explicitness, suggesting that current dominant approaches which consider decision making processes as reified and binary systems may need to be reconsidered.

# 1. INTRODUCTION

Over the past few decades, there has been a growing recognition of the importance of how people make decisions. From Daniel Kahneman's 2002 Nobel Prize in Economic Sciences for his work on heuristics and biases (Kahneman & Tversky, 1979b, 1982; Tversky & Kahneman, 1981, 2016), to the rise of behavioural economics and/or the policy applications of behavioural "nudges" (Thaler, 2016; Thaler & Sunstein, 2008), scientists and policy makers have increasingly studied decision processes for research and intervention purposes. As a core component of everyday life, decision making (DM) and its increasingly diverse processes and forms have been extensively investigated through psychological and behavioural research. Taking advantage of the progress in neuroscience, recent studies have shed light on the decision process and the connection between will, consciousness and action (e.g., Haggard, 2019; Maloney & Mamassian, 2009). However, the more sophisticated, the more lab-based the investigations tend to be, and what is lacking from this rich body of research is realistic data based on decisions' situated context. This has two consequences: first, many of the classifications are not based on everyday empirical evidence from real-world data, and this limits their empirical validity in ecological conditions. Second, we tend to know more about some specific types of (simple) decisions that are fit for experimental design; but how representative are they of the possibly many types of decisions that occur in normal life? And what is a decision anyway? The limit between habitual behaviour and decision, for example, is not clear: when do I "take the decision" to use the lift instead of the stairs? And do I "take the decision" to press on the lift button? What do we think, and feel, at the time of decision? How do we represent that process of decision to ourselves, how do we describe it to others? Such questions are fundamental but have been understudied because of the extreme difficulty to capture ecological data on the phenomenon, and the classic methodological difficulties linked to introspection. Thus, to explore the extent to which different types of decisions are involved in everyday life, a naturalistic study of human behaviour is required. This is technically a difficult task, and so far, most studies rely on memory (Gore et al., 2018; Hutchinson et al., 1991), which is known to be unreliable (Anderson et al., 1996; Thompson et al., 2014). By utilising the Subjective Evidence Based Ethnography (SEBE) approach, this research attempted to address some of the methodological difficulties, while investigating the subjective experience of making a decision using real-time data (Lahlou et al., 2015), ultimately aiming to explore how DM is experienced by individuals within the real-world situations through which they occur.

## 2. LITERATURE REVIEW

### 2.1 DECISION PROCESSES

A large body of decision research ascended from psychology's contribution to von Neumann & Morgenstern's rational choice theory (1947). Early descriptive research focused on highly de-contextualised tasks that identified optimal or rational behaviour, revealing more on experimental design rather than natural processes. Moreover, recognising that reaching rationality itself is a difficult process due to the number of factors involved, Simon (1979) introduced the concept of "bounded rationality" as a behavioural theory of rational choice that makes "modest and realistic demands on the knowledge and computational abilities of the human agents" (Simon, 1979, p. 476). The contributions of Simon were suggestive of how the logical theory of rational choice could be encompassed within a more general framework able to deal more adequately with behaviour in complex, non-validated choice situations (Gerrard, 2006, p. 46).

Additionally, previous research on perceptions of risk shows that people may rely on emotional responses to evaluate the risks and benefits of a given situation (Loewenstein et al., 2001; Slovic et al., 2004). This led to extensive work on the affect heuristic, which states that people have positive and negative associations with various stimuli which affects their judgments. This shortcut is often more efficient and easier than cognitive efforts such as weighing pros and cons or cost benefit analyses (Slovic et al., 2004). Affect and the way it relates to decision making is rooted in dual processes of the human mind and behaviour. According to this notion, the world is experienced by humans in two different ways: one that is "fast, intuitive, automatic, and unconscious", and another that is "slow, analytical, deliberate, and verbal" (Evans, 2008; Kahneman, 2011; Stanovich & West, 2000). A defining characteristic of the intuitive, automatic system is its affective basis (Epstein, 1994). Affective reactions to stimuli often come first and guide the following processes such as information processing (Zajonc, 1980).

According to Stanovich and West (2000, p. 649), System 1 is characterised as "automatic, largely unconscious, and relatively undemanding of computational capacity" and has been extensively discussed in the literature. On the other hand, System 2 contains "the processes of analytic intelligence that have traditionally been studied by information processing theorists trying to uncover the computational components underlying intelligence" (Stanovich et al., 2014, p. 81). While there have been debates on whether these two processes should be considered as two extreme ends or a smooth continuum (Leschziner & Green, 2013),

nevertheless the dual-process model remains a widely practiced framework for decision research.

The DM literature is enormous. Thus, the focus of this review was to briefly mention the most relevant research for understanding DM under uncertain conditions in which there are no obvious, correct, or optimal answers.

## **2.2 DECISION-MAKING IN EVERYDAY LIFE**

The following sub-sections review relevant literature on DM in everyday life by categorising them into three core elements: judgment, or how people predict the outcomes that will follow possible choices; preference, or how people weigh those outcomes; and choice, or how people combine judgments and preferences to reach a decision (Fischhoff & Broomell, 2020). Finally, a potential source for behavioural heterogeneity is acknowledged: individual differences.

### **2.2.1 JUDGEMENT**

DM involves predicting the outcome of the choices made by the actor. The quality of such judgments can be evaluated in light of their accuracy and/or consistency (Fischhoff & Broomell, 2020). Accurate beliefs about one topic does not necessarily hold true for related ones, leading to inconsistent judgments. On the other hand, people may have consistent beliefs but have slight knowledge. Both accuracy and consistency have been significant topics for decision studies.

The accuracy of actors' subjective interpretation of the world has been studied in three main categories including knowledge, or how much people know (e.g., Schwartz & Woloshin, 2013; Von Winterfeldt, 2013), calibration, or how appropriate people's confidence in their knowledge is (e.g., Fischhoff et al., 2006), and finally pooling, which includes how much a crowd knows (e.g., Danileiko & Lee, 2018; Davis-Stober et al., 2014).

Bayesian inference has been extensively utilised as a consistency standard (Edwards et al., 1963). It provides rules for how people should evaluate evidence and update their beliefs (Slovic et al., 1977). An alternative standard for consistency is Dempster-Shafer inference. Rather than considering the balance of evidence, Dempster-Shafer inference focuses on its conclusiveness (Shafer & Tversky, 1985).

### **2.2.2 PREFERENCES**

According to Fischhoff (2020), decision science has no criterion for assessing the accuracy of preferences. In other words, people have the freedom of determining their preferences. This assumption is particularly shared by neoclassical economics. Following the lead of psychologists, behavioural economists have engaged in putting such axioms to various tests. Several violations of the axioms have been previously investigated and theorised, including the prospect theory (Kahneman & Tversky, 1979a) which assumes that “preferences depend on the reference point evoked by how outcomes are described” (Fischhoff & Broomell, 2020, p. 66). This is while according to the axiom, only the consequences of the outcomes should matter and not the way they are described.

### **2.2.3 CHOICE**

Birnbaum (2011) characterises two harmonising approaches for studying DM: experiments and modelling. Experiments assess the sensitivity to the factors manipulated by researchers. They offer a piecemeal research methodology through which each experiment estimates the effects of a limited number of factors while keeping all others constant (Lerner et al., 2015; Oppenheimer & Kelso, 2015). Decision modelling on the other hand adapts a statistical approach, using procedures such as multiple regression analysis to estimate the importance of the factors describing each option in a choice set (Karelaia et al., 2008).

### **2.2.4 INDIVIDUAL DIFFERENCES**

The significance of individual differences on tasks have been previously studied by scholars such as Slugoski and Wilson (1998) and Yates et al. (1996). Such studies were later complemented by Stanovich & West’s (2000) metatheoretical examination of individual differences. Consistent with the conclusion that there can be individual differences in human rationality, their results showed a variability in reasoning that cannot be accommodated within a model of perfect rational competence. Another series of studies was conducted by Dewberry and colleagues (2013) to investigate the role of general cognitive styles, DM styles and personality in everyday life. They concluded that DM styles and personality jointly predict substantial variance in decision outcomes while general cognitive styles are relatively insignificant in predicting decision outcomes.

## **2.3 PROBLEM SOLVING IN EVERYDAY LIFE**

Problem solving processes include judgment (determining whether something is a problem), reasoning (deciding between alternative solutions), and self-monitoring (determining whether an approach is effective) (Pretz et al., 2003). The connecting factor of such processes is their common effort to modify or overcome obstructions for goal pursuit—i.e., a problem (Kok & Fredrickson, 2012). A comprehensive review of all factors is beyond the scope of this research. Thus, the next sub-sections briefly mention three of the most relevant aspects of problem solving for everyday life including heuristics, embodied influences, and structure mapping.

### **2.3.1 HEURISTICS**

Judgment and DM are prone to heuristic biases which are essentially “rules of thumb” which may lead into inaccurate inferences (Elstein & Schwarz, 2002). As previously mentioned, heuristic judgements are also influenced by affect (Schwarz & Skurnik, 2003). An illustrative example of this influence is the impact of positive or negative feelings for the goal process on how close to achieving that goal people perceive themselves to be (Clore & Storbeck, 2006; Hirt et al., 1996). Thus, rather than an objective evaluation, the perceived effectiveness of a solution may depend on the actor’s feelings.

### **2.3.2 EMBODIED INFLUENCES**

Recent research has revealed associations between problem solving and bodily states and experiences (Gibbs Jr, 2005). For example, when addressing a problem that is perceived as abstract or is difficult to represent in working memory (e.g., patterns of unconnected dots), people enact more bodily gestures than they do when solving easier problems (Hostetter et al., 2007). Such gestures have been shown to enhance working memory capacity, illuminating their significance in facilitating problem solving (Goldin-Meadow & Cook, 2012).

### **2.3.3 STRUCTURE MAPPING**

Structure mapping influences problem solving by presenting information that are beyond the limits of a specific problem. It enables problem solvers to access a conceptual structure common to both a well-known concept and a less familiar problem (or solution). Keefer

explains that “in structure mapping, a person makes an effort to deliberately and selectively fit aspects of the target problem into a template borrowed from a superficially unrelated concept, commonly referred to as the source” (2016, pp. 395–396). Such mapping can intervene in critical stages of problem solving to guide the actor in applying schematic knowledge of the source to think through the target problem, despite any apparent differences between them (Gibbs Jr, 2008).

## **2.4 ACTIVITY THEORY**

The method used in this research (see Research Design) investigates first-person recordings of activity in natural context, focusing on moments of decision, and elucidating the mental processes that took place at that moment, in their specific context. Previous work with similar empirical material (Fauquet-Alekhine, 2017; Lahlou, 2018; Lahlou et al., 2015; Le Bellu et al., 2016; Nosulenko & Samoylenko, 2009) has shown that (Russian) activity theory is an efficient approach to frame the analysis and facilitate elicitation of the mental processes by the subject of action (actor). Indeed, to fully understand decisions, it is required to know what are the individual and collective goals pursued by decision makers? What are their motives? Is there adequacy between these goals and the final result? To know their goals and motives will enable the understanding of their rationale process. Activity Theory enables real human activity to be analysed and structured.

In a nutshell, activity theory considers activity as an oriented trajectory from a given state (“conditions given”) to a consciously represented expected final state (“goal”), driven by internal motives (urge to reach some internal state of balance or satisfaction). Activity is subject-centric: performed from the perspective of the subject. The trajectory of activity is a succession of small problems to be solved (“tasks”), which can each be seen as reaching a local subgoal. Therefore, at each step, a task may present itself as a problem for decision-making, typically a choice between different possible behaviours. Using activity theory provided the analysis with information about the goals and subgoals of participants, and how they construct and solve the problems they face in real-life situations. Therefore, the output of such analysis provided evidence-based and relevant ground for discussion with the subjects themselves.

## **2.5 INSTALLATION THEORY**

Installation theory (Lahlou, 2018) describes certain channels and pathways, called installation, through which humans are provoked to behave in predictable and standardised manners. Installations possess a momentum of their own. They elicit, frame, channel, and control individual behaviour. Human beings act in certain ways to reach an end goal, although what is done in the process is not necessarily done happily (e.g., boarding a crowded train to reach the airport). Moreover, despite being free to think of whatever they want, humans are not free to act as such. However, rather than being a matter of free will, these channel states are mostly means-end issues. In such a state, decisions are not made through entirely individual processes, but they result from a distributed process where society has framed the situation and guides individual choice along a limited range of possibilities. Lahlou further explains: “When I pass a test, when I board a train, when I queue for my bowl of soup, when I undress for the shower, I behave in installations; sometimes I follow my own will, sometimes I don’t. Most of the time my freedom addresses only some aspects of the process” (2018, p. 19).

Installation theory constitutes three layers: the material environment (objects and their physical affordances), embodied competences (reflexes, skills, knowledge, representations, mental models, experience, habitus, common sense and so forth), and social regulation (appropriate behaviour). Each layer contributes to determination of behaviour; nevertheless, each layer alone leaves considerable degrees of freedom and therefore is an incomplete explanation of behaviour. But when the layers operate simultaneously, because the degrees of freedom they leave are not in the same direction, their combination leaves only a small tunnel of possibilities for the subject. This results in predictable behaviour.

## **2.6 RESEARCH GAP**

Data limitations have hampered psychologists and sociologists’ ability to study decision processes (Bruch & Feinberg, 2017) with an applied psychology (Baddeley, 1979) approach. Consequently, a large body of DM studies is built on findings from laboratory experiments and surveys that are often abstract and situate participants in artificial contexts and within pre-designed tasks. To what extent DM in real-world everyday contexts is aligned with the diverse theories in the field remains almost completely overlooked. Furthermore, DM literature has minimised the role of social context in decision processes. This is deliberate. Most experiments performed by psychologists are designed to isolate processes that can be connected with

features of decision tasks or brain functioning; it is incumbent on researchers working in this tradition to de-contextualise behaviour (including decisions) and de-socialise and de-realise the environment, reducing it to a single aspect or a theoretically predicted confluence of factors (Bruch & Feinberg, 2017, p. 208). These environments are (perhaps due to technical necessities) often pre-designed laboratory constructs aimed to control key features of the environment (e.g., Gigerenzer & Gaissmaier, 2011). Such methodological approaches intentionally eliminate aspects of realistic social environments, which limits its relevance for social sciences.

With regards to the identified gaps in the existing literature, this research attempted to explore *how DM is experienced and represented by individuals as they engage in their typical daily activities*. It initiated an exploration into the mental processing involved in everyday activities and by the actors themselves. To this end, the research collected unprecedented empirical material from the sample population for everyday DM, aiming to provide food for thought for future decision studies; it may also improve current methods and protocols by pointing at blind spots, as the research by Heitmayer & Lahlou with the same protocol did for the study of smartphone use (Heitmayer & Lahlou, 2021).

### **3. RESEARCH DESIGN**

#### **3.1 METHODOLOGY**

Human experience, as it occurs in real-world contexts, has to date been largely inaccessible to research. Scientists have usually resorted to asking people to self-report their experience through interviews and surveys or have had to rely on poor sources such as video-surveillance. Today, mobile digital technologies that reliably record auditory, visual and context data provide new possibilities to access situated human experience (Lahlou, 2011). One such technology is utilising the subcams for Subjective Evidence Based Ethnography (SEBE) (Lahlou et al., 2015) which consists of three steps: First, participants are equipped with miniature video cameras worn at eye-level, called subcams, and record audio-visual material (subfilms) in situations pertaining to the research objective. Then, researcher and participant watch the recordings together and discuss the material in a replay interview (RIW). Finally, to allow for triangulation of the results, the researcher formulates findings and once more discusses the interpretation with the participant (Lahlou, 2011). Viewers looking at the resulting subfilm can therefore get a good view of the action itself and from a first-person perspective. In addition, since subcamers tend to look at what they are doing, the subcam captures the focus of attention. Such tools and methodologies enable the capturing of behavioural and DM aspects related to actions. During the RIW, the subject is replaced in the sequence of his phenomenological tunnel, creating a re-enactment of the situation in a detailed and realistic way; it triggers episodic memory (Tulving, 2002). In practice, participants remember accurately their actions, intentions, motions, and are able to explain in minute detail their mental processes at the time of action. The SEBE protocol provides the research with an account of the mental processes as close as it gets to introspection, since the participant accesses these states without the demands of action and time pressure. These re-enactments have been used throughout the research to make explicit internal states of the participant as (s)he experiences DM. Moreover, selecting moments from the subfilm, when decisions are being negotiated, and showing these clips to the users enabled a reconstruction of the explicit and implicit thought processes behind the observed actions. Thus, the data revealed not only the DM situations, but also how they are socially represented, and finally, the procedures and processes the participant engages in to make a decision.

The subfilms were analysed through a combination of semi-structured interviews between the participant and the researcher, using activity analysis (see the section on Activity Theory).

### 3.2 SAMPLING, DATA COLLECTION AND DATA ANALYSIS

To prevent any gender-specific bias, an attempt was made to maintain balance within the collected data. To this end, the sample was drawn from a population of active young adults. Considering the purpose of the research, participants were chosen on the basis of their ability to provide information and not necessarily for their representativeness of a population distribution (Clarke & Braun, 2013). This also explains the relatively small sample size; the volume of data collected from each informant was large. Therefore, the participants were chosen not to sample persons, but to sample experiences of DM when engaging in activities that are perceived as part of the everyday life. Considering the importance of purposeful sampling in qualitative research (Ayres, 2007), the final sample of N=14 active young adults, aged between 22 and 28, with an average of 24 years old was drawn, providing the research with large sets of data for a grounded ethnographic exploration of DM in everyday life. Finally, participants were recruited using the researcher's personal connections and social media.

The research was carried out in following steps:

1. Collection of recordings from fragments of decision-makers' real days supported by the subcams. The subfilms recorded real-time data on participants' typical days as they implicitly and explicitly engaged in DM. By the end of this stage, realistic data on numerous decisions with regards to their ecology was gathered for further investigations. A total of *44 hours, 3 minutes and 25 seconds* of SEBE recordings was collected from a sample of N=14 as they went through their daily activities while wearing the subcam. Moreover, *41.65%* of the total duration of SEBE recordings was from male participants, while *58.35%* was recorded from females. An average of *3 hours, 9 minutes and 49 seconds* of each participant's everyday life was recorded.
2. In-depth replay interviews (RIW) between participant and researcher. While recordings were replayed, selected moments through which decisions took place were reconstructed by the participant to explore how making a decision through the activity process was experienced. This was supported by interview techniques developed by Lahlou (2011) and Le Bellu (2010) that have been adapted from the literature (Axten et al., 1973; Valach et al., 1988) and reviewed critically (Jonassen, 2016) to create specific protocols for the subcam. Following the SEBE phase, RIWs were held with every participant, lasting for an average of *1 hour, 15 minutes and 8 seconds* per person. A total of *17 hours, 31 minutes and 52 seconds* of RIWs was conducted with N=14

participants. Finally, 42.83% of the total duration of the RIWs was with male participants, while the remaining 57.17% was with females.

3. The collected data was recorded, transcribed and analysed using Thematic Analysis (TA) (Clarke & Braun, 2013) to develop a detailed and descriptive account of how individuals experienced making decisions as they engaged in typical everyday activities. One of the main reasons for choosing TA was its flexibility which provided the researcher with the opportunity to properly analyse the recorded data and identify themes that emerge as being important to the description of the experience (Braun & Clarke, 2006; Fereday & Muir-Cochrane, 2006). The first step for an in-depth TA was coding the collected data. To this end, common concepts mentioned by the participants, as they were reconstructing the activities during the RIW, were identified to enable a basic analysis of the action control process and when and how the actor experiences making a decision (Morse & Field, 1995). Using an inductive approach (Boyatzis, 1998), the data itself was then analysed to determine the threads that integrate and anchor the codes and were identified as themes (Mayan, 2016). Finally, bottom-up and top-down approaches were combined (Clarke & Braun, 2013) in the analysis to allow a multi-layered analysis of the collected data to put together a basic model (see Discussion of the Findings), illustrating the process of engaging in a typical activity, as it is perceived and experienced from the actor's point of view.

### **3.3 ETHICAL CONSIDERATIONS**

The high ethical standards for conducting research at LSE was an important concern throughout this research. The methodology and context of the research raised certain feasibility and ethical issues. It required providing candid explanations on the decision's rationale and accepting some degree of transparency. However, the general guidelines of SEBE were closely followed to address the encountered ethical issues with ethnography using visual data (Lahlou, 2011; Lahlou et al., 2015). Everri et al. (2020) previously reflected extensively on such issues and provided the ethical guidelines for video-ethnography, published by the LSE team and followed closely throughout this research.

At a more operational level, a generic (but comprehensive) guide was adapted by the researcher as ethical guidelines including procedures and cases for the ethics committee. To this end, participants were given the opportunity to review and edit any footage they do not want to share before the data is given to the researcher. This not only facilitated the research as the

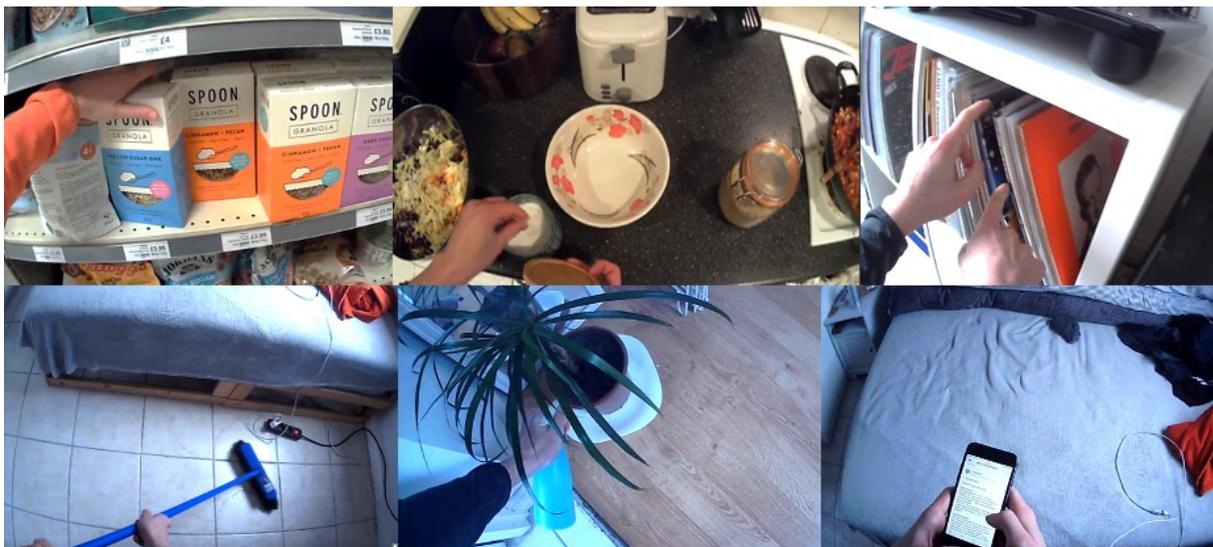
protocols and ethical procedures are already tested and validated, but also ensured that a high ethical standard is upheld. Furthermore, participants were provided with an information sheet (see Appendices) to understand the reason for which this research was conducted, followed by its procedures. This was complemented with an informed consent form (see Appendices) which was completed by the research participant. Moreover, transparent discussions with participants on the actual motives of the research and how it will be used were conducted, as well as addressing candidly the potential problems, for ethical and heuristic reasons. Finally, the collected data was stored and kept in an encrypted hard disk drive to ensure participants' protection.

## 4. FINDINGS AND ANALYSIS

The subcam footage showed participants as they engaged in a variety of “typical” activities which they perceive as part of their everyday life. Recorded activities (see Figure 1) included cooking, cleaning, commuting, working, grocery shopping, reading, organising, using the mobile phone, doing laundry, drawing and other daily activities. During the RIWs, the subjective experience of DM was explored through the activity process. Participants explained their thought processes during various stages of an activity, including whether they experienced certain instances (e.g., when a shift in activity/action occurs) as making a decision.

**Figure 1**

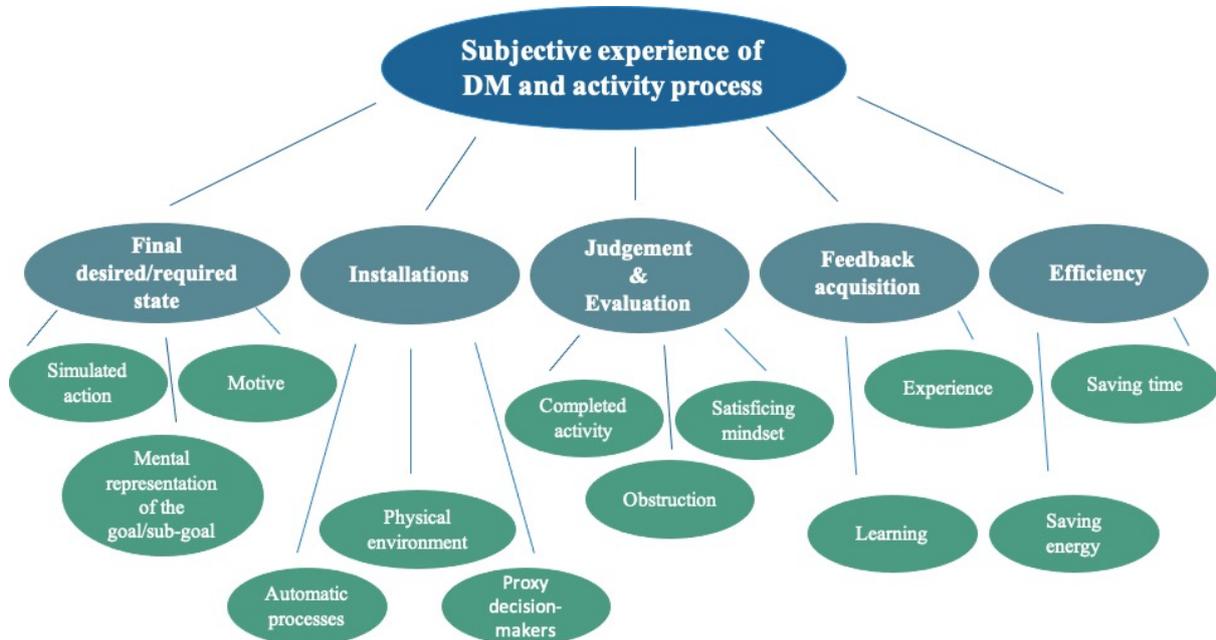
*Everyday activities recorded by the subcam: grocery shopping, preparing a meal, choosing music, cleaning, watering the plants and using the mobile phone*



Overall, 5 main themes (see Figure 2) emerged from the analysis of the RIWs, during which participants reconstructed the recorded daily activities: deciding over a future desired/required state (goal and/or motive), installations (regulation of activity), evaluation and judgement, feedback acquisition (trial and error) and finally, efficiency (speed and energy). These themes integrate 13 codes, identified through TA of the data (see Appendices for a complete codebook). The following sub-sections report in detail the identified themes and codes, as well as illustrating them with examples from the verbatim and screenshots of the activity process.

**Figure 2**

*Illustration of the identified themes and codes through TA of the RIW*



#### **4.1 DECIDING OVER A FUTURE DESIRED STATE**

During the RIWs, the first step of an activity explained by all participants was deciding on a general goal and/or a future desired state: “I decided to clean up and tidy up a bit” (P5). Whether that goal includes a careful decision on what to prepare for a meal, or it’s simply going through a pre-defined routine of certain activities, setting a goal is experienced as making a decision by the actors: “I experience the cleaning part as a decision” (P10), “The decision is whether to clean the room or not” (P12). Thus, determining the general future-oriented purpose of activity was described by participants as a conscious decision: “Deciding that I wanted to read at that point was a decision I made” (P8). Figure 3 is an illustration of P9, as she explained making an explicit decision to “get it together and get rid of the mess”. She further explained: “I set a goal of cleaning and decluttering my room” and subsequently engaged in the process of reaching her chosen desired state.

**Figure 3**

*A participant explained deciding over a future desired state of having the room decluttered*



Having decided for a goal, participants described a conceptual representation of the future desired/required state while thinking of the activity which could contribute to reaching their chosen state: “I decided to study and my desk needs to be clean and empty when I study” (P5). Thus, it appeared that the deviation between the actor’s current state and his/her mental representation of the future desired/required state acted as a stimulant for action: “The goal I’m following here is cleaning my room to make it more clean and aesthetically pleasing” (P4). Participants illuminated a conceptual road map for reducing such deviation, attempting to align their current state with the mental representation of a final state. They further described thinking ahead of what to do later and/or the next steps (tasks) for reaching the desired state: “I’m trying to decide what to make and then what’s the next step from there” (P6). A mental simulation of future activities was described by the participants as “planning” (P12) or “thinking ahead of the next steps” (P1). This simulation was experienced by them as construction of an imaginary road map, starting from the participant’s current state and destined to reach the future-oriented chosen one: “I was thinking about what else I have to do that day, so I was just making a mental checklist” (P2). Certain activities/tasks were thought of and mentally simulated as milestones for the abstract journey towards a conceptual representation

of the chosen goal/motive: “I was looking for salsa. I had nachos at home, and I wanted to make baked nachos. So, I needed it for a meal I had in my mind, and I wanted to make” (P12).

## 4.2 INSTALLATIONS

While all participants explained having to decide over a general goal or the satisfaction of a motive, the process of achieving it was experienced with much less explicitness and more automaticity, revealing an imposed regulation on the guided activity process: “I have a mental image of how the final dish is supposed to look like, as well as knowing the steps and instructions I have to follow, even though I don’t have a recipe” (P12). Such regulation was experienced by the participants as a reduction in possibilities for action/task, ultimately leading them into perceiving the activity process holistically and as something “effortless” (P1), “natural” (P5), “obvious” (P8), “automatic” (P4) and/or “normal” (P10). Thus, little to no conscious DM was experienced through the guided flow of actions/tasks that follow a decision for a goal: “No, I don’t experience putting the pens and pencils back inside the pencil case as making a decision. That’s just part of the process of clearing up my desk and clearing up the desk was the decision” (P10, see Figure 4).

**Figure 4**

*A participant decided to clear the desk and then engaged in the following task(s) of putting the pens back in the pencil case*

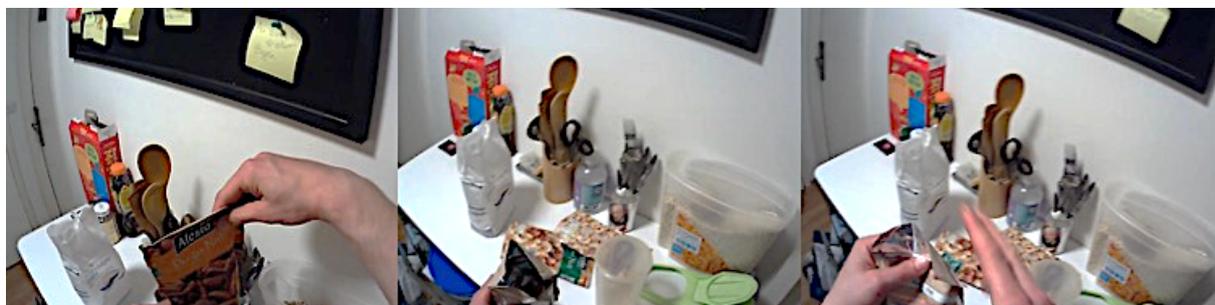


The RIWs revealed that the fluidity of such behaviour-channelling installations (see Installation Theory) determined the extent to which the goal-oriented sequence of actions/tasks were decided for by the participant. In other words, how narrow the range of actions was, and how much leeway (s)he had to choose a certain goal-oriented task, was a determinant of how explicit

DM was experienced by the participant. For example, P8 explained the preparation process of a meal: “It felt really obvious to put them in the oven for the cooking process. It’s a pretty standard, pretty straightforward and effortless meal”. Where the fluidity of the installation made the realisation of an activity very much convenient, action control rarely occurred through explicit experiences of DM and the activity process was perceived by participants as “obvious” and experienced as “just happening”, indicating some degree of action automaticity. For example, P3 (see Figure 5) explained deciding over a general goal of maintaining weight and a sub-goal of consuming more calories. Thus, he grabbed some nuts as part of the regulated process for reaching his goal. However, he did not experience such a guided action as a decision per se. This further illustrated less to no explicit experiences of DM when the installation that scaffolds the goal-oriented task(s) is highly fluid: “No, grabbing the nuts wasn’t a decision. It’s just like, I seriously need to eat so much food to not lose weight. So, nuts are just like, easy calories and cheap. Again, cheap and easy and they’re there!”.

**Figure 5**

*A participant grabbed some nuts to reach his goal of maintaining his high calorie consumption*



Therefore, when strong regulation was imposed, consequently narrowing down the range of action into a single possibility, participants perceived the activity/task as “the go-to option” (P9) or “the only option” (P3), for which they did not have to decide. For example, P6 explained taking a salad bowl from the cabinet: “It wasn’t really a conscious decision. I just know that it needs to be a bowl so that I can put water in it to be able to cook the couscous, and that was the only one available so, I didn’t really have to think about it”. On another occasion, P2 (see Figure 6) described: “I felt like having something savoury so, then in my mind, it was like what

do you have which is savoury? So, obviously the only choice is hummus and flatbread because it's the only savoury thing I have”.

**Figure 6**

*A participant decided to satisfy a motive of having a savoury meal and the only possibility was hummus and flatbread*



Additionally, regulation was imposed through “rapid autonomous processes which are assumed to yield default responses” (Evans & Stanovich, 2013) and was experienced by the participants as the “default choice” (P9), which occurred with no experience of DM. For example, P12 explained making the bed immediately after waking up: “It’s something that I always do. I just do it without thinking, so I don’t experience it as making a decision”. Therefore, activities perceived as habits and/or routines were described by the participants as happening “automatically” (P6) and required little (even none) conscious thinking: “drinking milk has always been how I start my day my entire life. I wouldn’t say I felt like I decided to do it” (P12). Interestingly, participants explained having to “decide against” (P1) a habit and/or a routine which normally happened with some degree of automaticity. Therefore, as a “default” activity/task emerged, choosing to act otherwise was experienced by participants as an explicit decision to intervene with the automatic flow of habits and/or routines. For example, P1 described his thought process for deciding against his habit of washing hands after touching a dirty broom: “Normally, I would wash my hands but I realised that I don’t really need to wash them anymore because I’m not handling anything that is clean or crucial. So, I guess washing hands is just more of a habitual response than it is conscious, so I decided against it”.

Finally, participants explained that when relying on their previous experiences, knowledge, and skills, or more generally their embodied competences (see Installation Theory), the

occurring activity/task was rarely decided for and was thus mostly experienced as “something obvious” (P8) which the actor is somehow aware of. For example, P1 (see Figure 7) described relying on his previous experiences to resolve an obstruction with a drawer: “It’s just obvious. I know how these IKEA things work and I also know how these shelves work”.

**Figure 7**

*A participant relied on previous experiences and embodied competences to resolve an issue with the drawer and successfully managed to close it properly upon removing the obstruction*



Where previous experiences did not exist, or were insufficient to feed forward into the realisation of a task to resolve an obstruction, the actor distributed action (Lahlou, 2017) and/or DM to other people (asking for instructions or help), objects (physical affordances of the environment) and/or installations. For example, P12 explained distributing DM and relying on her mother for instructions on how to prepare a certain meal, following her decision to satisfy her motive of consuming it: “The recipe that I’d decided to make that day was something I’ve never made before, so I asked my mum how to make it, so she explained the recipe and the instructions”. An additional illustrative example came from P9 (see Figure 8), as she cooked from a recipe while having to continuously evaluate the outcome of her actions by comparing the result of each stage to the provided images: “I haven’t made that particular dish before. So, it’s completely new for me, but I try to follow the instructions provided for me by the recipe as closely as possible”. Where previous experiences did not exist, or were insufficient, the actor provided him/herself with images from the final state, and/or the result of and instructions for each task, using external sources (e.g., recipes, videos, images, etc.). The participants explained monitoring and evaluating the outcome of each stage of the activity process by comparing it to

the provided images, while trying to replicate the extrinsically developed process as closely as possible (see Figure 8).

**Figure 8**

*A participant used an instruction sheet to prepare a recipe for the first time and tried to replicate it*

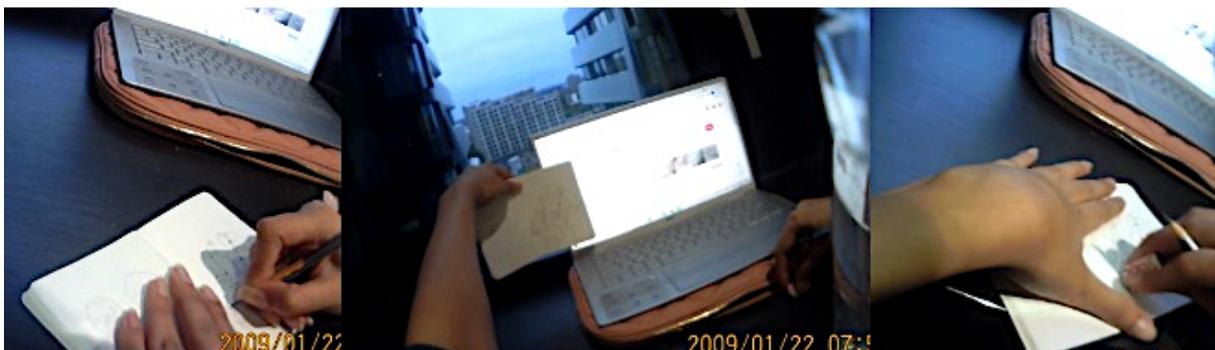


### 4.3 EVALUATION AND JUDGEMENT

From the beginning of an activity/task, participants described constantly having to monitor the outcomes and evaluate them through a comparison between the feed-forward of the simulated action and the desired state: “I was trying to monitor what’s going on” (P1). In other words, whether the action was reducing the gap between the initial state and the final desired one was monitored through a constant comparison by the actor. Typically, the end of a(n) action/task was either due to perceived completion of the task or occurrence of an obstruction. An illustrative example was described by P11 (see Figure 9) as she was replicating a picture: “I’m constantly trying to compare my drawing with the model picture, so I put the original picture and the drawing next to each other”.

**Figure 9**

*A participant compared the outcome of her drawing to the final picture and redid the unmatched details*



Rather than emerging from a maximising mindset, evaluation and judgement of the action outcome typically occurred using a “satisficing” (Simon, 1990, p. 9) heuristic, eventually resulting in outcomes that were experienced as “good enough” (Webley et al., 2002, p. 10): “I just want the room to be clean enough” (P4). Another descriptive illustration of such a mindset came from P3, explaining how the outcome of the activity (here cooking) was evaluated by him: “I’m not trying to become a chef or something, so the food is all fine”.

If the evaluation of the outcome was unsatisfactory due to a misalignment between the action outcome and the mentally simulated desired goal/motive, the action was repeated several times (see Figure 9 and Figure 10) before the actor was either satisfied and evaluated the activity/task as completed or perceived an obstruction in case of failure. For example, (P7, see Figure 10) explained repeating the action of turning a stuck jar lid until the sub-goal of opening the jar was achieved: “It was very tough to open the jar and it doesn’t work. Then I tried again until I opened it”.

**Figure 10**

*A participant struggled with opening a jar and repeated the action until sub-goal achievement*



#### **4.4 FEEDBACK ACQUISITION**

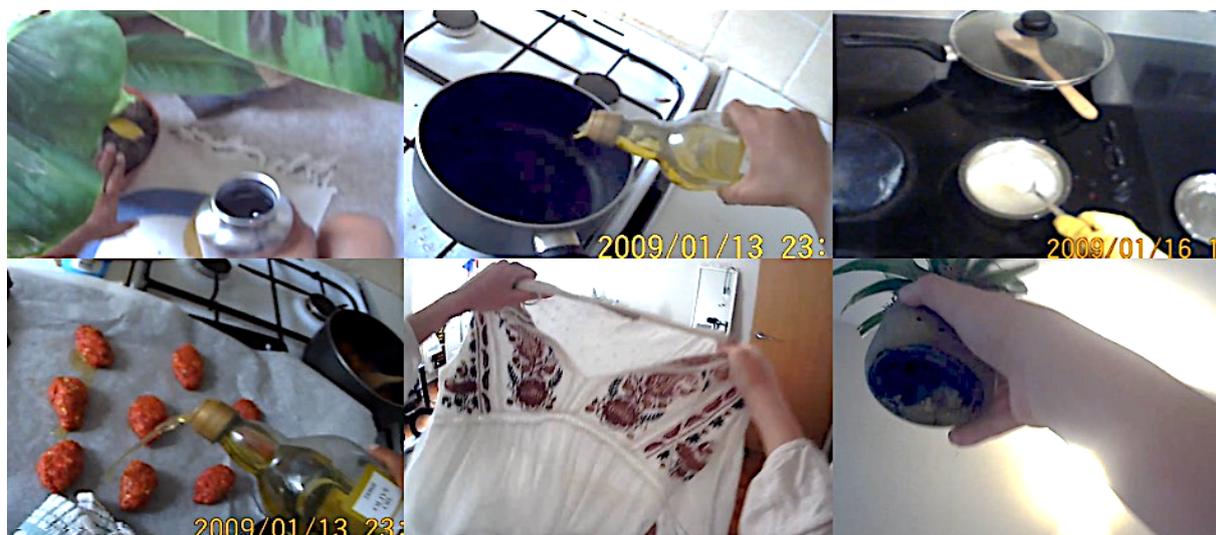
During the RIWs, participants explained acquiring sensory and/or embodied feedback for evaluation purposes. They further explained monitoring the task outcome and comparing it to the mental simulation of the goal and/or testing it against their affect or motive: “It makes me happy when I see everything clean” (P12). Therefore, participants acquired feedback for evaluation purposes by testing the outcome of a(n) activity/task either against their affect (e.g., music, taste, colour, etc.), a mental simulation of the desired state based on the actor’s previous experiences (e.g., testing for the softness of the food to evaluate if it’s cooked), or an external source (recipes, instructions, pictures, etc.). P12 (see Figure 11) explained acquiring sensory

and embodied feedback from testing the cooked rice against her previous experiences of the required state: “I place it in my hand and see that if it’s soft enough. If not, I cook it for a while more”. Another illustrative example came from P9 (see Figure 11), as she monitored how much she needed to water the plants: “If the soil is damp, then I’ll leave it and if it’s dry, then I’ll give it a little bit more. So, depending on how wet the soil is, I know how much water approximately to pour. I keep touching the soil to feel how wet or dry it is and then base my next action on that. For some things this might be comparing it to a mental image, but in that case, the easiest and most reliable feedback is to stick your finger in the soil and feel it”. On another occasion, P9 (see Figure 11) explained relying on her previous experiences for a visual estimation of the amount of oil she needed for preparing a meal: “I eyeballed the amount of oil she needed for preparing a meal: “I eyeballed the amount of oil and I’ve poured oil into pots and pans enough to be able to roughly tell how much I need”.

Upon completion of evaluation and reaching a judgment of a satisficing outcome, participants described a shift in activity/task, either to the next step of the goal-serving sequence of actions: “I was done tidying up the room, so I came out to the kitchen” (P12), or onto a new emerged task(s) which served the sub-goal of resolving a perceived obstruction: “The Wi-Fi is not working, so I’m connecting and reconnecting it” (P7).

**Figure 11**

*Participants acquired sensory feedback for monitoring and evaluation of how damp the soil is, how much oil is required for a meal, how cooked the rice is, how clean a shirt is and how much water was given to a plant*



## 4.5 EFFICIENCY

In the context of everyday activities, almost all participants explained trying to maintain some degree of efficiency within the tasks and activities in which they engaged. Such efficiency mostly occurred in two ways. One manifested as the actor's attempt to increase the speed of DM and consequently the following task and/or activity: "It's just the shortest way to get to the tube station and I just want to get to uni as soon as possible, so I just take the shortest route" (P4). The second way to maintain efficiency occurred through reducing the physical and/or cognitive effort invested by the actor in making decisions and reaching future desired/required state(s): "I'm running around sweaty for like a very long time now, and I also realised, I could have showered but, you know, I might as well streamline the activities" (P1). In the same spirit, P11 explained: "I just only take the time to respond to all the notifications all together, because I think that saves a lot more energy than constantly opening social media to just reply to one person or message". Additionally, participants mentioned trying to "save time" by getting done with some other (usually related) tasks, should the task at hand require them to wait for its completion. An illustrative example was P12's description of how she avoided having to wait passively for the completion of a(n) task/activity: "I'm waiting for the milk to warm up and meanwhile, I'm tidying up the kitchen. [...] The vegetables were already cooking and I just had to wait, I was trying to think of anything I could do in the meantime".

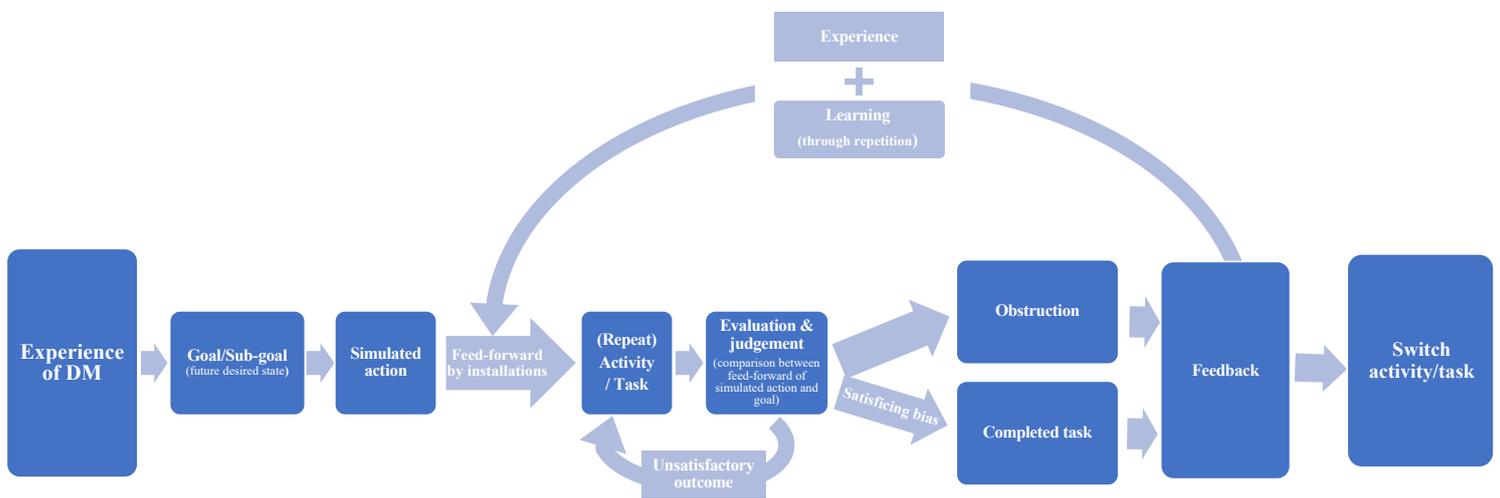
While the current section aimed to present the findings from analysis of the collected data, the next section attempts to interpret and explore such findings in light of the some of the most relevant literature.

## 5. DISCUSSION

A basic visual model from subjective experiences of activity processes and DM was developed based on participants' reports (see Figure 12) and explained through this section. Additionally, the model was connected to the most relevant literature on the neural bases of behaviour to contribute to the development of a general model of what happens in the actors' brain as they engage in an activity, and how this is experienced and represented by them as they attempted to reconstruct the activity process through the RIWs.

**Figure 12**

*A basic model for actors' subjective experience of the process of a typical everyday activity*



As described by all participants, an activity typically starts with a conscious decision over a future desired/required state (see Figure 12 and Deciding over a Future Desired State). Consistent with this finding, P. K. Anokhin's theory of functional systems explains such a decided future state as a "result of a system" which is "a desired relation between an organism and its environment, achieved through the realisation of that system" (2016, p. 272). It can therefore be stated that activity is stimulated by a discrepancy between the actor's current state and a mentally simulated future result. The actor decides over such a result consciously, leading to explicit experiences of DM through this future-oriented step of the activity process (see Figure 12). Interestingly and from a neuroscientific perspective, Alexandrov & Shvyrkov have previously found that "the interaction of neurons while achieving a behavioural result is

accomplished by synchronizing the activity of the neurons in different brain structures” (2008, p. 422), indicating that different neurons may work together with the future result as a general integrator. Therefore, consistent with the participants’ explanations (see Findings and Analysis), what makes a sequence of actions, tasks, and sub-goals meaningful is the idea of a goal with regards to which the actor perceives the entire process (Alexandrov, 2008). Additionally, the presence of neuron activation per se, as well as the activation characteristics depend on the actor’s chosen goal (Grace et al., 2007). It can thus be stated that the environment is subjectively interpreted by the actor based on a consciously decided future desired state, leading into the initiation of an activity process. This finding sits well with Lomov’s (1977) recognition of an activity goal as an ideal representation of the future result of the activity set by the individual himself. Such notion is consistent with the findings of this research through which actors described explicitly experiencing DM when choosing a goal (see Deciding over a Future Desired State).

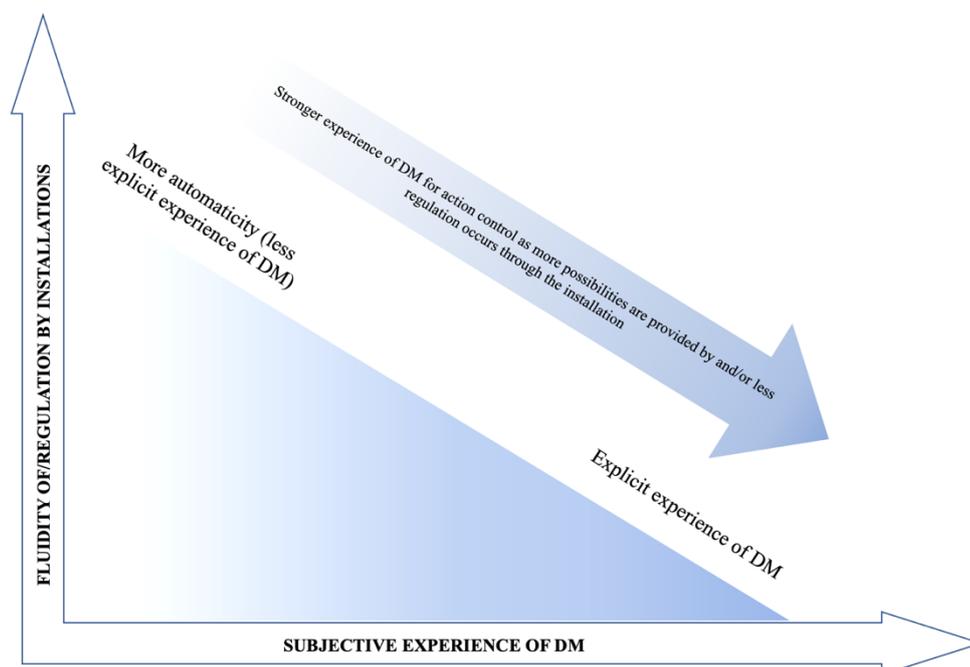
Upon deciding over a future desired/required state, the deviation between the actor’s current state and the desired one appears to be a stimulant for subsequent actions. Such a mental simulation of a sequence of goal-oriented actions/tasks (see Figure 12) was experienced by participants as a mental action plan or a road map to reach the pre-decided goal (see Findings and Analysis). Consistent with this finding, the term “conceptual model” was adapted by Welford (1961) to interpret such psychic processes. The term has been used to describe the actor’s inner world which is constructed through the accumulation of experience, knowledge and information (Nosulenko et al., 2005). It can thus be stated that the actor simulates a mental action plan to achieve a chosen future desired state, while a perceived discrepancy between the current state and the desired one feeds forward and serves as a stimulant for subsequent actions.

Although a mental action plan was described by the participants, not everything that is imagined can occur. Realisation of simulated actions depend on the extent to which the actor’s environment can afford their materialisation. In addition to the physical affordances of the environment, the actor’s embodied competences, which include the actor’s subjective interpretation of occurrences, previous experiences, knowledge and learned skills, and what is considered as socially appropriate (see Installation Theory), feed forward (see Figure 12) into the conceptual action plan. Therefore, such dynamic regulation determines what activity can actually and really occur, guiding and channelling the activity process towards the actor’s chosen future state. Strong regulation of behaviour through installations leaves the actor with limited (sometimes one) possibilities for action, reducing the explicitness of DM over choosing

an activity which can potentially lead the actor into meeting the chosen desired state. Consistently, and as illustrated in the previous section, participants reported no explicit experiences of DM, perceiving the channelled activity process as “obvious” (P14, P8, P1, P8, P10) through which they simply have to “go with the flow” (P5) of a sequence of emerging actions/tasks (see Installations). Where less regulation happens through installations, consideration of several possibilities for action requires conscious thought processes, consequently leading the actor into a more explicit experience of making a decision (see Installations). When such channelling action tunnels are highly fluid, the actor views the entire process for reaching the goal holistically and experiences the goal-oriented sequence of actions/tasks as simply “knowing what to do” (P1), for which they do not have to consciously think of. It may therefore be stated that the subjective experience of DM through the process of action control cannot be defined as a reified, polarised, or binary concept. It is a smooth spectrum through which the actor may experience DM more or less explicitly depending on the extent to which the activity process is regulated and/or supported by the installation that scaffolds it (see Figure 13). The findings (see Installations) support this statement as participants explained the degree to which they experience DM, varying within a “continuum of explicitness” (P5) depending on how fluid the goal-oriented activity process is. The findings further suggest that with more possibilities for action comes more conscious anticipation of the outcome of each afforded option and thus, more explicit experiences of making a decision.

**Figure 13**

*Installations, regulation of realised action and the subjective experience of DM*



The completion of the action/task (see Figure 12) is evaluated through a comparison between the action outcome and a mental representation of the desired state (see Evaluation and Judgement). In addition to channelling and regulating activity, installations also influence the final goal originally formulated by the actor. This may be due to the limited options afforded by the installation. In other words, upon formulation of the goal, the actor enters a tunnel of sequenced actions and is guided through towards realisation of his/her mental representation from the goal/motive. Such process may lead the actor into a (more or less) different outcome compared to the initial simulation of the final goal. However, since the process was guided and perceived as completed, the actor is satisfied with the outcome, overlooking the (slight and acceptable) deviation from the initial simulated outcome. Therefore, depending on the affordances of the installation, the actor compromises the desired final outcome, perceiving the activity as completed if the result is satisfactory and contributes (more or less) to the desired/required final state. Thus, contrary to the rational choice theory (Simon, 1955, p. 99), the final judgement of the action/task outcome typically occurs using a “satisficing” (Simon, 1990, p. 9) heuristic, eventually resulting in outcomes that are experienced as “good enough” (Webley et al., 2002, p. 10), rather than emerging from a maximising mindset. This may be due to what participants explained as trying to consider some type of efficiency for action control, ultimately leading them into “streamlining” (P1) their activities and/or tasks (see Efficiency). Best outcomes are thus compromised with good enough ones by the actor to save time (increase speed) and/or physical and mental energy (cognitive capacity). Additionally, this line of the findings (see Evaluation and Judgement) sit well with certain research trends in evolutionary psychology which consider “time and energy as two of the most important factors in cost-benefit analyses of the evolution of animal behaviour” (Todd, 2001, pp. 53–54). In the same spirit, humans acting as cognitive misers has been an old theme in cognitive and social psychology (Evans & Stanovich, 2013), leading them into substituting an easy-to-evaluate characteristic for a harder one, even if the easier one is less accurate (Kahneman & Frederick, 2002).

Finally, an activity is stopped either due to an evaluation of a satisfactory outcome (perhaps through repeating the action until such an outcome is achieved) or a perceived obstruction (see Figure 12). In both instances, feedback is acquired by the actor from a comparison between the action outcome and the mental representation of the desired state (see Feedback Acquisition). Over time and through repetition (Jaber & Glock, 2013), such feedback is accumulated as the actor’s previous experiences, learned skills and gathered information which is experienced as

something that emerges automatically, depending on how much experience has been accumulated or repetition has occurred (Wogan & Waters, 1959). Hence, the activity will gradually feel less of a decision and experienced more as a daily habit and/or routine by the actor, requiring little to no conscious thinking (Lally et al., 2010). Through such a feedback acquisition process, experience and learning are accumulated as the actor's personal competences, ultimately feeding forward into the realisation and regulation of future goals and activities through installations (see Figure 12). This connects well with the participants reporting no experience of DM, since a certain activity and/or task had been done "enough times" (P9) for it not to require a conscious decision (see Feedback Acquisition).

In cases where an obstruction was perceived (see Figure 12), such a decision may be to abandon a task due to an unresolved obstruction or distribute action and/or DM to an external source (objects, installations, or others). If the actor is provided with the pre-decided goals and sub-goals extrinsically (e.g., through instructions), the goal is to "zero in" (Nosulenko et al., 2005, p. 376) on the tasks and tick them off one by one as precisely as possible. Consistent with this concept, such a process was described by the participants as "following instructions" (P9), through which they did not experience having to make a decision (see Installations) but were merely "acting on a set of pre-decided tasks" (P12). The actor then simply monitors the outcome by a constant comparison to the required state/image (see Evaluation and Judgement). Russian studies in the field of man-technology interaction and in connection with the psychological theory of activity (see Activity Theory) have previously discussed such a process through analysing the behaviour of a pilot as (s)he engages in the process of flying a plane (Nosulenko et al., 2005).

This section attempted to discuss the research findings in more detail and with regards to some of the most relevant literature and theories. Upon acknowledging the research limitations, the next section illuminates some pathways for future research.

## **6. RESEARCH LIMITATIONS**

Despite the sizable amount of data that was collected for this research, it is obvious that a saturation of data was not reached. Moreover, a diverse range of sub-populations may also be required for a more in-depth analysis of the findings. This is especially true given the fact that the sample population for this research was recruited with regards to the researcher's accessibility, consequently reducing the generalisability of the findings. The findings therefore need to be tested with more data, collected from a larger sample population and through a diverse set of methodologies including surveys, questionnaires, regression analyses, etc. to provide a clear taxonomy of decisions in everyday life.

Moreover, the context of "everyday life" can practically include any type of activity, which may explain the broad angle of this research. Consequently, the long RIWs may have introduced a risk of participant exhaustion, thus leading the participants into settling for less accurate or even dismissive answers. On the other hand, narrowing down the concept of "everyday life" into a specific activity would have negatively impacted the purpose of this research. Nonetheless, the research attempted to address such a limitation by maintaining the variety of activities while reducing the dedicated time for analysing each during the RIWs and asking the participants to record bite sized chunks (e.g., 60 minutes) of each everyday activity. However, maintaining the consistency of the recorded activities may have benefited the research by narrowing down the broad angle.

Considering the limited scope of this dissertation, the current section aimed to acknowledge a few of the limitations. Taking such shortcomings into account, the next sub-section introduces a few pathways for future research.

### **6.1 AREAS FOR FUTURE RESEARCH**

Further investigations into the subjective experience of DM can provide future research with a deeper understanding of the dynamic relationship between micro- and meso-level processes and their larger-scale implications (Hedström & Bearman, 2009). This will in turn allow a realistic measurement of people's everyday decisions, enabling a standardisation and categorisation of DM processes involved in natural settings.

Furthermore, evaluating DM processes with regards to their ecology has the capacity to distinguish between different sub-populations and thus may allow for the identification and

evaluation of situational factors that induce detrimental DM amongst the heterogeneous population (e.g., in terms of economic status, occupation, income, education, demographic background, culture, embodied competences, personality traits and economic preferences, emotions felt before, during and after decisions, etc.).

Finally, future research may use a wider methodology to propose a typology for the various types of DM in everyday life with regards to the context in which they occur. This may be based on statistical analyses (factor analysis, clustering, etc.) of the decision event. In a similar vein, future research may conduct a frequency assessment of the various types of decisions. Through such an investigation, identification of high-frequency and low-frequency decisions in everyday life may be possible.

## 7. CONCLUSION

This research aimed to conduct an exploration into the subjective experience of decision making (DM) as people engage in their typical daily activities. To this end, real-time evidence was recorded through the subcams and Subjective Evidence-Based Ethnography was utilised to capture and investigate decisions in-situ and within the context they occur. The research found that participants experience making a conscious decision over a final desired/required state and then enter and follow a guided tunnel of a regulated sequence of actions/tasks. Following a deliberate decision over a future state, the extent to which participants experience making a decision depends on how strongly such goal-pursuing process is supported, guided and regulated by certain channels and pathways called installations. Less regulation and affordance of a wider range of action by such installations requires the actor to anticipate each outcome, thus leading into more conscious thought processes and explicit experiences of DM. Regardless of whether the chosen final state is conceptually represented in the actor's mind or provided for him/her by an extrinsic source, the actor continuously monitors the action outcome(s) for a reduction in the discrepancy between his/her current state and the final chosen one. Slight deviations from the chosen goal are compromised by the actor, illustrating a satisficing mindset through which an activity is considered as done, or is stopped due to a perceived obstruction.

The research concludes that the subjective experience of DM, and how the actor perceives it, need to be studied in light of the activity process and with regards to the installation that scaffolds, regulates and supports such a continuous sequence of actions and tasks. Rather than current widely practiced approaches, which understand and explain human DM through reified procedures, this research finds it necessary to consider DM processes as a continuum which may be experienced by the actor more or less explicitly. It is thus crucial for future research to investigate the obscure zone between Stanovich & West's (2000) "system 1" and "system 2" beyond theoretical interests, and through diverse methodologies, to complement decision studies with a fresh perspective based on realised, contextualised and socialised approaches.

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# APPENDICES

## PARTICIPANT INFORMATION SHEET

You are being invited to take part in a research study. Before deciding to participate it is important for you to understand why the research is being done and what it will involve. Please take time to read the following information. Feel free to discuss issues with anyone, and if there is anything which is not clear or any questions you have, feel free to ask. Take your time reading, and don't feel rushed.

### **What is this research about?**

In order to gain a deep understanding of what you perceive as a decision and how you experience making one, a naturalistic study of your behaviour in real-world contexts is required. The research thus attempts to investigate your subjective experience of decision-making as you engage in various everyday activities.

### **Who is doing this research?**

My name is XXX, I am a MSc student in the Psychology of Economic Life program of the Department of Psychological and Behavioural Science at the London School of Economics and Political Science. My dissertation project is supervised by Prof. Saadi Lahlou.

[xxx@lse.ac.uk](mailto:xxx@lse.ac.uk) ; [s.lahlou@lse.ac.uk](mailto:s.lahlou@lse.ac.uk)

### **Why have you asked me to participate?**

I have asked you to participate in my study because you are an active young adult, aged between 22 and 28 years old who are likely to engage in various activities throughout your everyday life.

**What will participation involve?**

You will be given an introduction in how to use the subcam. You will then be asked to wear your subcams throughout the day doing everyday activities like studying, doing groceries, cooking, commuting, etc. You will then watch the video material you have gathered together with the researcher to explain what is going on in the subfilm.

**How long will participation take?**

I would like to ask you to record yourself and your everyday activities with your subcam for several hours a day over a few days. It is important that you film yourself for a longer period (5h +) at least once. You will then be asked to participate in a Replay Interview of about an hour.

**What about confidentiality?**

You will gather first person view, audio-visual material (subfilms) with your subcam, with the possibility to interrupt the recording whenever you might wish to do so. You will be able to preview the material before submitting it to the researcher, with the possibility of editing out unwanted passages or abandoning the entire tape altogether. It is furthermore possible to blur faces and distort or erase voices of any person that might appear in the subfilms and wishes no to.

**If you are willing to participate, then please sign a Consent Form.**

**You can keep this Information Sheet for your records.**

## INFORMED CONSENT FORM

**Project:** Using Subjective Evidence-Based Ethnography to Investigate the Experience of Decision-Making in Everyday Life

**Researcher:** XXX

**Supervisor:** Professor Saadi Lahlou

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### To be completed by the Research Participant

**Please answer each of the following questions:**

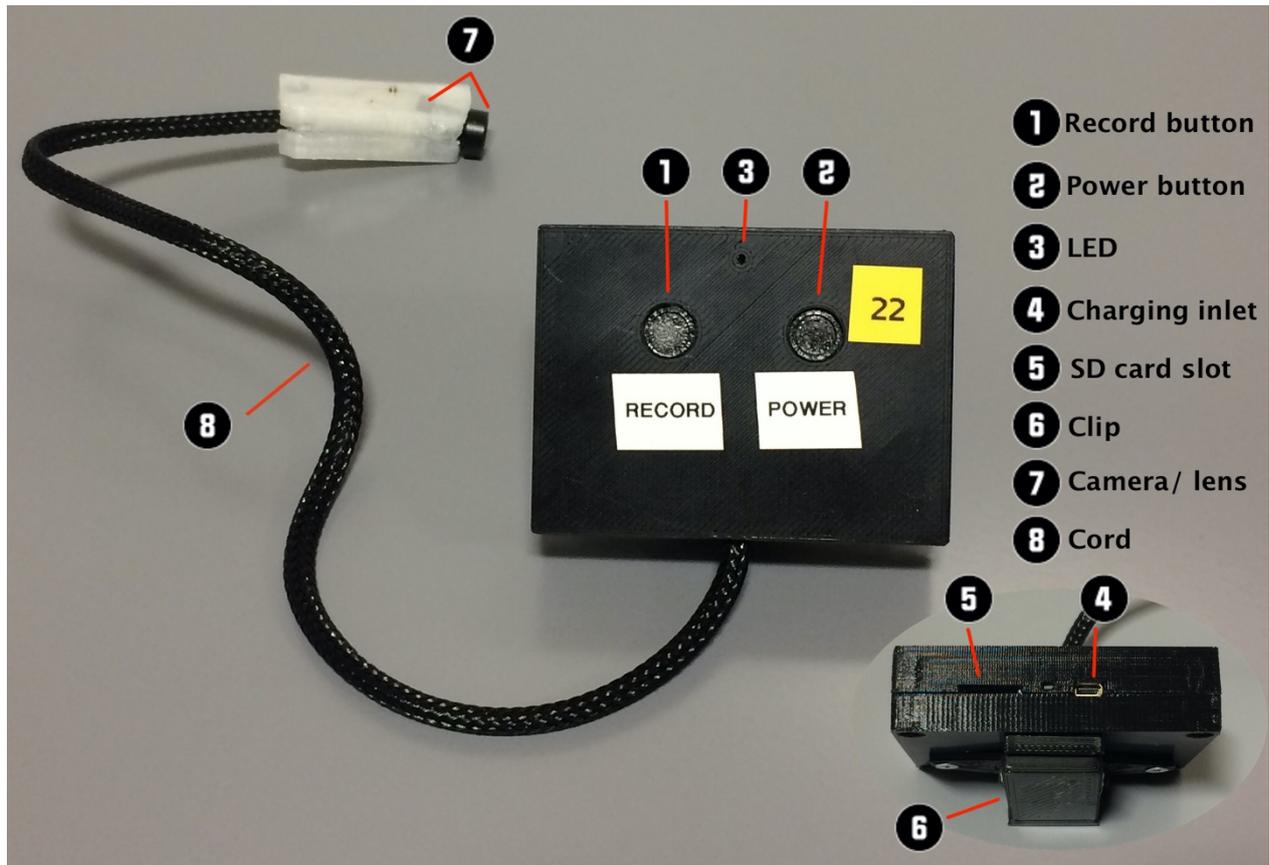
- |  |            |           |
|--|------------|-----------|
| Do you feel you have been given sufficient information about the research to enable you to decide whether or not to participate in the research?     | <b>Yes</b> | <b>No</b> |
| Have you had an opportunity to ask questions about the research?   | <b>Yes</b> | <b>No</b> |
| Do you understand that your participation is voluntary, and that you are free to withdraw at any time, without giving a reason, and without penalty? | <b>Yes</b> | <b>No</b> |
| Are you willing to take part in the research?  | <b>Yes</b> | <b>No</b> |
| Are you aware that the interview/focus group will be audio/video recorded?   | <b>Yes</b> | <b>No</b> |
| Will you allow the researcher to use anonymized quotes in presentations and publications?  | <b>Yes</b> | <b>No</b> |
| Will you allow the anonymized data to be archived, to enable secondary analysis and training future researchers?                                     | <b>Yes</b> | <b>No</b> |

**Participants Name:** \_\_\_\_\_

**Participant's Signature:** \_\_\_\_\_ **Date:** \_\_\_\_\_

If you would like a copy of the research report, please provide your email or postal address:

## SUBCAM MANUAL



Your subcam has two buttons and one LED. Please insert an SD card into the SD card slot (5) before using the camera.

- To turn the subcam on or off, hold the power button (2) for two seconds. While on, the LED will shine an orange light. If the LED is flashing instead, please make sure you have inserted the SD card correctly.
- To record footage or to stop recording, press the record button (1). While recording, the orange LED will flash.
- To charge your subcam, plug the long-life battery into the charging inlet of your cam (4) and connect the battery to power. While charging the cam, the LED will shine a red light. Fully charged, the internal battery of your subcam lasts 3 hours (check whether this is correct). The long-life battery lasts an additional 5 hours, which gives you 8 hours of recording time in total.

## **SAMPLE DATA**

Two example subfilms recorded by two different participants can be viewed using the below link. The subfilm shows participants going through an activity which they perceive as part of their everyday life. The below link can also be used to access the RIW conducted with the participants. A sample of the transcript from RIWs conducted with both participants has been included in the next sub-section (see Sample Replay Interviewers).

<https://drive.google.com/drive/folders/14aMWAIWusWdnMPBrOAJd4vw4dQ3kP-q?usp=sharing>

Permission to use these short clips as supplementary material for this dissertation has been obtained by the participants and all those whose voices and/or faces have appeared through the subfilms and RIWs.

## SAMPLE REPLAY INTERVIEWERS

PARTICIPANT NUMBER: 12

PARTICIPANT INFORMATION: Female, 23

DURATION: 01:04:04

DATE & TIME: 2021-06-23 | 11:32:16

**Interviewer:** Alright, so I have now started to record the session. Thanks again for your time! So, do you remember what's the goal here {00:00:01} and what you're doing?

**Participant (12):** Yeah, I've just woken up, so I was just making my bed and just doing my morning routine.

**Interviewer:** Okay, um, do you always start your morning routine with making your bed?

**Participant (12):** Yeah, I mean like, the minute I get off the bed, I need to make my bed before I start doing anything else.

**Interviewer:** Okay, did you experience making your bed as something you decided to do?

**Participant (12):** I think it's more like, something that I always do as soon as I wake up and start my day. I just do it without thinking, so I don't experience it like a decision.

**Interviewer:** Fantastic! So here {00:01:05}, what are you up to? What's the goal now?

**Participant (12):** I'm tidying up the room a bit. Just folding clothes and things like that which I left there the previous night, so I try my best to tidy up my room before I sleep, but if I'm too tired or it's too late, then I just leave it and that's [tidying up the room] the first thing I do in the morning, which is what's happening in the video here {00:01:23}.

**Interviewer:** I see. Did you experience it as a decision to tidy up the room?

**Participant (12):** It was more like, a decision I made the night before and then in the morning I just the clothes left out in the room and remembered that I need to tidy up and put them away.

**Interviewer:** Right, and how about folding the clothes and putting them back? Was this something you experienced as a decision?

**Participant (12):** For that particular morning and at that particular instance {00:01:44}, yes, considering I made the decision not to do it before I slept the previous night and leave it for the next morning. So, yeah, that activity [folding the clothes and putting them away] was based on a decision I made at that moment.

**Interviewer:** Interesting! How about where to put the clothes after you're done with folding them? Do you experience choosing where to put them as a decision, or do they have their designated place where they always go and so, you don't even need to think about it?

**Participant (12):** No, I don't decide where to put them, because everything in my room has its designated spot, so I always know where they [folded clothes] go. I don't change the spot, so I don't need to make any decisions.

**Interviewer:** Alright, fantastic! So, um, how come you went for some water here {00:02:25}? Was it because you were thirsty, or wanted to stay hydrated, or was it mostly because you saw it there and just went for it?

**Participant (12):** I think I was thirsty, because I had just woken up and I hadn't had water and also because I had to water my plants, so...

**Interviewer:** Was watering the plants something you experienced as a decision?

**Participant (12):** No, like I said, it's my morning routine and I don't usually decide on the activities that I do as part of my morning routine, so it wouldn't have been a decision.

**Interviewer:** Right, and here {00:03:09}, what happens is that your bag comes into your visual field and you then start emptying it.

**Participant (12):** Yeah, because like I said, everything in my room has a designated spot, so I always keep my bag in its place, like right now it's also there [in its designated place]. So, when I saw the bag was on the chair, I decided to move it because I was tidying up everything already and I saw the bag there and decided to put it where it should be. So, that was a decision I made on the spot after seeing the bag there while I was tidying everything up.

**Interviewer:** Interesting! Is it like, you were in some sort of a cleaning mindset, so whatever comes into your visual field that needs tidying up, you take care of it on the spot?

**Participant (12):** Yeah, I would prefer everything being in its place before I start my day, because if it's all over the place, then my mind will also feel very cluttered, so just having everything put back in its place helps me start my day nicely.

**Interviewer:** Fantastic! Yeah, that makes perfect sense. So, do you remember why you came into the kitchen here {00:04:28}?

**Participant (12):** Because I was done tidying up the room and then I came out to the kitchen to see if there was any more tidying up left to do in the kitchen and then I saw that I had left the baking tray out from the previous day, because I did some baking, so I just came and put back the thing. So, I was still in a cleaning mindset and generally looking for anything that needs tidying up and the baking tray came into my visual field and I was like “That doesn’t belong there”, so I put it back.

**Interviewer:** And did you decide on where to put the baking tray, or did you just know where it goes?

**Participant (12):** I knew where it goes, so that wasn’t an issue that I needed to decide on.

**Interviewer:** Alright, and do you remember why you open the fridge here {00:05:01}?

**Participant (12):** To get the milk, because I always have milk in the morning. That’s how I start my day. {00:05:15} Yeah, these were all the dishes I’d washed the previous night, so I was just putting them back as well. I saw the dishes there, so I decided I’m gonna put those away first and then have milk.

**Interviewer:** Okay, did you experience it as a decision to take care of the dishes first before going for some milk, because like, you suddenly saw the dishes there?

**Participant (12):** Yeah, that was a decision.

**Interviewer:** How about where to put them? Did you experience where to put the dishes as making a decision over?

**Participant (12):** No, they have their designated spot.

**Interviewer:** Did you experience having some milk at that moment as a decision?

**Participant (12):** No, that’s always been how I start my day my entire life. {00:06:18} I’m waiting for the milk to warm up and meanwhile, I’m tidying up the kitchen.

**Interviewer:** And here {00:06:33} you see the pile of mail there and decide to shuffle through them?

**Participant (12):** Yeah, because it was just all messy there. I was just rearranging it and I was just seeing if there was any mail that concerned me, because my roommate is the one who brings the mail into the room, so I was seeing if any of them were for me.

**Interviewer:** Okay, and what's the goal here {00:07:02}?

**Participant (12):** It's to tidy up the kitchen while I wait for the milk to warm up and normally, while the milk is still warming up, I try to finish anymore work that's left, because once I'm done having milk, I just directly go take a shower.

**Interviewer:** Okay, and how do you when the milk is done warming up?

**Participant (12):** I heat it up for one minute, so the microwave beeps when the one minute is up.

**Interviewer:** Okay, okay, and in this one [recording] {00:07:52}, is the goal again to clean up the room?

**Participant (12):** Yes, again, I'm tidying up the place and this was like, a different day and after my shower.

**Interviewer:** Okay, so you're hoovering the room here {00:08:05} and I'm wondering how you know if or when the room needs some hoovering? How do you decide whether to Hoover the room?

**Participant (12):** So, I try to do it twice a week, but it really depends on how the room is. If I feel like it's messy or if I can see a lot of dust on the floor and if I just feel like it needs cleaning, I just clean it, so that would be a decision that I make based on how the room looks and whether I would need to clean it.

**Interviewer:** Interesting! So, you also get some visual feedback from the state in which the room is?

**Participant (12):** Yeah, like I said, I try to Hoover the room twice a week, but which day of the week in particular definitely depends on how the room looks and how satisfied I am with how clean the room is.

**Interviewer:** Okay, that's really interesting! Is choosing which day in particular to Hoover something you experience as a decision?

**Participant (12):** Yeah, hundred percent. Yeah.

**Interviewer:** Okay, cool. Also, how do you know how much hoovering is enough? As in like, how do you when to stop hoovering and that it's like, enough?

**Participant (12):** I mean, I just go over the entire space and based on like, experience, it's usually pretty much clean after that. So, again, it's also visual feedback. So, it's a bit of both experience with cleaning hoovering the room many many times and also visual feedback.

**Interviewer:** Fantastic! You also Hoover the kitchen. Was that always part of the plan? Do you always Hoover the kitchen as well as your room?

**Participant (12):** Yeah, because I'm sort of a person who likes everything being clean, like I even Hoover the bathroom, but yeah like, I need every space that I'm living in completely clean.

**Interviewer:** Yeah, I see. Also, I'm curious to know if you remember what was going on in your mind as you were hoovering. Were you thinking consciously about the task at hand, or was your mind wandering off and you were like, thinking of something else?

**Participant (12):** It's just, cleaning is very relaxing for me, so I think it was just a nice break from work and everything. It just makes me happy when I see everything clean. So, I was just smiling when I was doing this and like, enjoying it, but the other thing could have been that, because I'd just taken a shower, I was also trying to make a mental list of all the things I have to do. So, I was thinking about what else do I have to do that day, so [I] was just making a mental checklist as I was hoovering and was thinking ahead because the hoovering doesn't need much conscious attention of course.

**Interviewer:** That's really interesting! You mentioned a mental checklist, is this something you do every day?

**Participant (12):** Yeah, definitely! I make a mental checklist of all the things I need to do that day and then cross them off mentally one by one.

**Interviewer:** Interesting! You take a mop here {00:11:28} and mop the floors after you're done with hoovering. Is this always part of your cleaning routine? Like is it always with the same structure, like you Hoover first and then mop?

**Participant (12):** Yeah, that's how I always clean. It's like, Hoover first and then I mop the floors. It's not something I have to decide on really. The decision is whether to clean or not, but if I decide to clean, then this is how it's going to be.

**Interviewer:** Yeah, that makes perfect sense. Again, as you're mopping the floors here {00:12:01}, are you trying to get some visual feedback like you did with when you were hoovering the place?

**Participant (12):** Yeah, like, I go over the surfaces once and if I felt like there was the need to go over it again, based on the visual feedback, I'd go over it again but at that point I keep it at one [go]. {00:12:25} There I realised I ran out of mopping liquid, which is why I just stick to mopping my room, because otherwise I would have mopped the kitchen and the bathroom as well.

**Interviewer:** Yeah, right. Do you remember why you went in the kitchen here {00:12:35}?

**Participant (12):** Just to wash my hand up, because I was finished with the cleaning.

**Interviewer:** Was washing your hands after you were done with the hoovering and mopping something you experienced as a decision?

**Participant (12):** No, I mean, because I do it every time, I wouldn't say I felt like I decided to do it [wash hands]. I mean, especially now with Covid, you're just so prone to washing your hands after everything. So, it's mostly a habit by now that I'm so used to.

**Interviewer:** I see. So, here {00:13:20}, do you remember what's the goal and what's happening basically?

**Participant (12):** So, I go for evening walks every day, especially on the days that I'm working and I don't get to step out, I make a point to at least go to the park close by for an evening walk, so there {00:13:33}, I've just come for an evening walk.

**Interviewer:** Okay, do you always go to the same park for your evening park?

**Participant (12):** Yeah, I always go to the same park, but this was something that I started a week before that [the recording], to go to the park every day. So, yeah, the decision was already made to go to the park every day and then another decision here was the time, because the first time I went over [to the park] late, probably around seven thirty or eight, and I saw that there was very less crowd, very few people and it was really quiet and silent and I like that, so the time when I was going to go for a walk was a decision that I made to only go at this time, because I like how the park is at that time and I knew this based on like, experience. So, it was a decision based on trial and error and I managed to figure out the best time and decided to go only at that time to enjoy my walks even more.

**Interviewer:** Right, right. So, you prefer the park to be less crowded and you enjoy it better when there are few people around?

**Participant (12):** Yeah, because since I'm going to a walk, it's supposed to be more of a relaxing activity and not having too many people around help it being relaxing.

**Interviewer:** Yeah, that's totally relatable! Do you have a certain route in the park which you've chosen to take, or are you just randomly walking wherever?

**Participant (12):** So, the park itself has a designated path, so I just stick to that.

**Interviewer:** Oh, I see. Here {00:16:10}, another path sort of, breaks off from the one you were taking. How come you went for this one then?

**Participant (12):** That path is more for cyclists and the people who want like, a shorter walk, but I always stick to the longer route.

**Interviewer:** Okay, was that a decision you made? I mean, did you even consider at all taking the other route?

**Participant (12):** No, because, I mean I try to walk five kilometres every day, so it's just a lot easier if you take the longer route to finish it and reach my goal of 5 kilometres.

**Interviewer:** Okay, okay, and here {00:19:10}, do you remember what's happening and what's the goal?

**Participant (12):** I'm preparing lunch, so I was just washing it before cooking it.

**Interviewer:** Do you already know by now what you want to make for lunch? Was this something you experienced as a decision?

**Participant (12):** I do know what I want for lunch, yes and I definitely experienced it as a decision, because it depends on what ingredients I have, how much time do I have to cook. So, based on that, then I make a decision. Also, based on how hungry I am, do I want to make a quick snack, or do I want to make a full meal. So, I consider a lot of factors for the decision and so, it's definitely something I have to decide each time.

**Interviewer:** Interesting! So, the meal that you've chosen to prepare, is it based on a recipe, or do you already know how to make the chosen meal?

**Participant (12):** It [the chosen meal for lunch] was something I know how to make.

**Interviewer:** Okay, so I'm wondering if you have an image of how you want the final dish to look like, and you just aim for that and rest just comes naturally, or is like, you have certain instructions that you have to tick one by one regardless of the outcome?

**Participant (12):** Both, actually. I have a mental image of how the final dish is supposed to look like, as well as knowing the steps and instructions I have to follow, even though I don't

have a recipe, because it's not the first time I was making that particular dish, so I knew based on experience what steps to take in order to reach that final image of the dish.

**Interviewer:** This is super interesting! So, do you experience choosing the ingredients for the meal as a decision, or do you already know what goes in because you've prepared this particular meal before?

**Participant (12):** So, I was making fried rice that day and because I had extra vegetables, I just decided to put extra vegetables, like I just added carrot and beans because that was all I had, but that day I also had broccoli, so I made a decision to have broccoli as well, so that was an additional decision other than putting in more vegetables.

**Interviewer:** And how come you suddenly went for washing the dishes?

**Participant (12):** Because I've put the rice on the gas and because it will take some time and since I was already in the kitchen, I thought until that cooks, I can wash the dishes.

**Interviewer:** And do you always wear the kitchen the gloves when you wash the dishes, or was something you experienced as a decision to wear them to wash the dishes?

**Participant (12):** I always wear them, so it wasn't a decision, but obviously, the first time I got them it was a decision that I made to get them so that I can start wearing them to wash [the dishes], but after a certain point it wasn't a decision I had to make anymore and I just wear them every time now.

**Interviewer:** Right, right. Is there a certain structure you have in your mind when you wash the dishes, or do you just wash them without having to think that much?

**Participant (12):** So, I think it's the way I arrange it. So, I know how the dishes fit in this space [dish rack] that I have, so I try to wash it in the same model, so for example, I always wash the cups first, because those are the ones I keep first, but if there's a plate, I wash that before I wash the cups because the plate goes behind the cups, so it's in the order in which I leave it to dry and I wash in that order and based on how the space [dish rack] is like, designed and how I fit the dishes in it and leave them to dry.

**Interviewer:** Okay, so here {00:22:45}, you suddenly go back to the stove to check up on the rice. I'm wondering how come you suddenly went to the stove? Did you hear some sound that it was making, or is it just like you felt an itch to check up on the rice?

**Participant (12):** Because I could see the water in boiling, so that's when I knew I had to stir the rice, otherwise based on experience I know that the rice which was at the bottom would cook more than it is on the top, so I was just stirring it.

**Interviewer:** Alright. Again {00:24:14} here, you check up on the rice again.

**Participant (12):** Yeah, I was checking to see if it was done.

**Interviewer:** And how do you know if it's done or not?

**Participant (12):** So, I just look at it and if it looks puffed up, then I normally try to place it in my hand and see that if it's soft enough, or if it still feels hard then I cook it for a while more, so that was a decision at that point on whether the rice is cooked, or does it need to be cooked more and the decision was based on how it looked and felt like and at that point I decided that it's still not soft enough, so it needed to be cooked a bit more.

**Interviewer:** That makes perfect sense, yeah! What did you want from the cabinet here {00:25:20}?

**Participant (12):** I was trying to get the strainer out so that I could wash the vegetables and take out the rice.

**Interviewer:** Do you always wash the vegetables before using them, or was that something you experienced as having to decide over?

**Participant (12):** No, that's something I always do. {00:25:40} I also wanted a sponge [from the cabinet] to wipe the counter and that was a decision I made at that point, because I had thrown out the sponge I was using the previous day, so I needed a new one.

**Interviewer:** How come you decided to wipe the counter?

**Participant (12):** Because when I washed the dishes there was a little water which had come on the counter as well, so I was drying the surface. Also because while I cook, I try to keep the kitchen as clean as I can, because I share the kitchen with two other flatmates. Also because even at home if anything spills, I would try to clean it immediately and not leave it on the counter if something was spilled or anything.

**Interviewer:** Do you experience cleaning the counter immediately if anything spills on it something like a habit of yours?

**Participant (12):** Yeah, it's definitely a habit at this point.

**Interviewer:** Okay, interesting! Alright, so by now {00:26:48}, it seems like you're satisfied with the how cooked the rice is, and did you experience it as a decision that the rice was cooked and you were ready for the next step?

**Participant (12):** Yeah, that was for sure a decision.

**Interviewer:** Okay, so do you always the same oil you use to fry the rice here {00:27:29}, or was that something you decided to go for at that point?

**Participant (12):** No, I used to use vegetable oil in my cooking earlier, but then I switched to olive oil. So, when I was switching, I experienced it as a decision to start using olive oil from then on, but now I just use olive oil for pretty much all my cooking, so it's not a decision anymore.

**Interviewer:** Okay, I see. How do you how much oil you would need? I'm asking because you don't measure it and you don't use a spoon or anything, you're just looking at how much you can actually see there in the pan.

**Participant (12):** Yeah, it's just an estimate of how much I would need based on previous experience, cuz I mean, I'm learned cooking from my mom and she also goes by like, an estimated amount. So, I think just looking at it [the amount of oil in the pan], I can pretty much figure out how much I would need. It's also based on previous experience as well, because like I said, I made that dish before, but even the first time I made it, it was an estimate of how much oil I would need and not an exact measurement.

**Interviewer:** Yeah, I see. Okay, so what happens here {00:28:43} is that you're ready for the vegetables to go in, but then you look at the vegetables and suddenly shift to something else.

**Participant (12):** Yeah, because I looked at them [vegetables] and remembered that I haven't washed them and that's when I remember that I still have to wash them before I cook them.

**Interviewer:** Was washing the vegetables after remembering that you haven't washed them yet something you experienced as making a decision?

**Participant (12):** Yeah.

**Interviewer:** Okay, so here {00:29:13} the vegetables are all washed and frying in the pan and you go in your room. Do you remember why you went in your room there?

**Participant (12):** So, because the vegetables were already cooking and I just had to wait, I was trying to think of anything I could do in the meantime, but yeah, I came back in my room to see what there is to do and I check if there is water [in the room] and also to get my phone.

**Interviewer:** Yeah, you check your phone here {00:29:43} and take it with you back to the kitchen. I'm wondering if you had already decided to get your phone and perhaps that's why you went into your room, or did you just take the phone with you back to the kitchen because you just saw it there in your room and got reminded of it somehow?

**Participant (12):** I definitely got my phone because it just came into my visual field when I went to my room, because the goal of going to the room was just to check if there was water, if I needed to fill the water before I sat down for dinner, but then because I saw my phone there, I just end up getting it.

**Interviewer:** Mm hmm, yeah. Was grabbing your phone as soon as you saw it there something you experienced as a decision?

**Participant (12):** Yeah, that was a decision. Getting the phone was a decision, but before that, going into my room to check the water was also something I experienced as making a decision.

**Interviewer:** Oh, right. Thanks for that! Perfect! Okay, so here {00:30:43}, interestingly, what you do is that you see that you have a few notifications, but you don't open them. How come you decided not to open the messages you were notified of?

**Participant (12):** Yeah, because I have this thing where I only reply to notifications if I feel like that's something urgent or it needs to be responded to right away. I just only take the time to respond to all the notifications all together, because I think that saves a lot more energy than constantly opening social media to just reply to one person or message.

**Interviewer:** For sure, yeah. You put your phone aside here {00:31:12}. Was this something you experienced as a decision?

**Participant (12):** Yeah, that was definitely a decision I made that none of the notifications were urgent enough that I had to respond right away, so I could keep it for a later time and this was a decision I made at that point, so I put my phone away.

**Interviewer:** Right, right. So, here {00:31:37}, before you take the water into your room, you stir the vegetables on the stove. I'm wondering how come you did that? What urged you in stirring the vegetables at that point?

**Participant (12):** So, I can hear that it's making like, a sizzling sound, so I checked up on them to make sure that they're not burning or anything and I saw that they were cooking, so they just needed a stir to make sure that all the sides are being equally cooked. Again, this was a decision I made to give them a stir and leave them to cook.

**Interviewer:** Mm hmm, I see. So, here {00:32:12}, how did you know that it's time for the rice to go inside the pan with the vegetables, and was this a decision?

**Participant (12):** I put the rice in because when I was stirring the vegetables, I could feel that they had gotten a little bit softer, and yeah it was a decision because with cooking, or pretty much everything else, I knew the steps of the recipe and how the recipe goes and what steps to take to reach that final dish, but when to move from one step to the other is definitely a decision based on my experience with each step and the feedback I get. So, for example, I knew that I had to put the rice in once the vegetables were done, but deciding exactly when the vegetables were done was a decision based on experience and feedback like, how soft or brown they are, so it was up to me to decide when the vegetables were done.

**Interviewer:** That's really really interesting! Thanks for explaining this! So, what do you go for here {00:32:56}?

**Participant (12):** Just a spice mix to add to the food and it's part of the recipe, so it had to go in the food.

**Interviewer:** Okay, okay. So, here {00:33:30}, it seems like your meal is prepared and all cooked up, but you stand there for a few minutes and it seems like you're waiting for something, I think? Do you remember what's going on there?

**Participant (12):** So, after I add the spice, I'm supposed to cook it for another minute or so, so I'm just waiting for it [the food] to be ready.

**Interviewer:** And you suddenly got reminded of your phone here {00:33:44}? I'm asking because you take your phone and check it.

**Participant (12):** I had a notification when I was stirring the rice, so I was just checking again, checking if it was something I need to respond to right away.

**Interviewer:** Right. So, about the amount of rice you cook, how do you know how much rice would be enough? Do you measure it with like, the little cups they usually come with, or is it again, just by looking how much rice you're putting in the pan and just trying to go with a rough estimate?

**Participant (12):** No, for rice I definitely use a cup measurement, just because I don't like over cooking [cooking too much], so for rice I have a cup I use for measurement.

**Interviewer:** Fantastic! So, here {00:35:10}, what's the general goal?

**Participant (12):** The goal is to wash the dishes, and you can also see that I started with the plate which I explained earlier on about the structure I have for washing the dishes and that's exactly what you can see me doing there {00:35:20}, because I put them for drying, I have a particular order in which I arrange it [the dishes], so I try to wash it in the same model.

**Interviewer:** Cool! Is there a particular reason for this specific structure which you have developed, or was it something that just came organically?

**Participant (12):** So, I try to keep the plate against the wall so that it dries faster, cuz keeping in straight wouldn't help it to dry, and I keep the cups at the back so that if anyone touches the stuff in front, they wouldn't fall or break. So, I think it was just a very intuitive logic. So, the first time I developed this structure of arranging the dishes and washing them was like, a decision I made, but it's just a habit at this point. So, the final steps of washing the dishes as a goal is to empty the sink there {00:36:48} and wipe the counter for anything that has spilled, like water or something.

**Interviewer:** Mm hmm, yeah. So, what's going on here {00:37:07} then?

**Participant (12):** Here again I was also cooking lunch, so I was washing the dishes first and then lunch.

**Interviewer:** How come you decided to wash the dishes first, before moving on to preparing lunch?

**Participant (12):** Because I don't like to cook if the kitchen is messy. So, cleaning is always the first step to anything. Like I said, even when I wake up, like I need to clean first before I start my day.

**Interviewer:** And here {00:37:34}, you notice that the spoon is not clean?

**Participant (12):** Yeah, there was just something sticking to the spoon which I just saw it at that point, so I was just removing that before I could actually use it.

**Interviewer:** So, then {00:37:51} you wash the spoon. Was this something you experienced as making a decision based on the thing you saw stuck to the spoon?

**Participant (12):** Yeah, because I tried to remove it with my hand, but it was just sticking to the spoon, so I had to wash it properly remove it.

**Interviewer:** Okay, and you already know what you want to have for lunch there {00:38:02}?

**Participant (12):** I do.

**Interviewer:** Was choosing what to have for lunch something you experienced as a decision?

**Participant (12):** Yeah, it was a decision, because like I said, the decision on what to have to eat is based on like, how hungry I am, what ingredients do I have, what do I feel like eating, how much time I have, so every time I decide what to have to eat is based on the same factors and so, I experience it as making a decision to choose what to have in the end. One additional decision was whether I know how to make it [the decided meal]. So, the recipe that I'd decided to make that day was something I've never made before, but I really wanted to eat it, so then I had called my mom up before making it and O asked her how to make it, so she had explained me the recipe and the instructions. So, yeah, again that was an additional decision I made that I want to eat this, but I don't know how to make it, so my solution to this was to call up my mom and ask her for instructions.

**Interviewer:** Oh, wow! Cool! So, I'm wondering if you hadn't made that particular dish before, how did you know of the dish at all? Had you tried it before?

**Participant (12):** Yeah, so I mean, at home whenever my mom used to cook it [the particular dish], I would be around the kitchen even if I didn't cook necessarily, so I knew pretty much what are the main ingredients I would need, so I knew that I had those [the required ingredients], so then I asked my mom "These are the ingredients that I have. Do you think I can make this?", because I didn't have a couple of the ingredients which will not be very important for the outcome of the recipe, so then I decided to skip those [missing ingredients] and just make it with the ingredients I did have.

**Interviewer:** Okay, and when you're putting the flour in the pan, you use a tablespoon as some sort of a measurement maybe? Are you counting to a certain number of tablespoons of flour which you need for the recipe, which your mom had told you about?

**Participant (12):** Yeah, she did, because since didn't make it [the recipe] before, so I had to ask how much flour I need to make it only for one person, so she told me the measurements and I just apply what she had told me. So, this time it's like, I'm cooking from a set of instructions that my mom had given me, so I try to be more careful about each step because I

want to stick to her instructions and measurements as best as I can, because I don't have experience preparing that recipe before.

**Interviewer:** Oh, yeah, for sure. So, what are you looking for here {00:40:52} in the fridge?

**Participant (12):** So, I had to get out a couple more ingredients from the fridge, but then that's when I noticed that there was some water which was spilled in the fridge and then, I decided to remove everything there [inside the fridge] so that the things in the fridge don't get spoiled.

**Interviewer:** And you experienced removing everything from the fridge and cleaning everything before you put them back as decisions you made?

**Participant (12):** Yeah, those were decisions.

**Interviewer:** Okay, perfect! So, you mentioned already that you're cooking this meal based on a set of instructions which you've received from your mother, and I'm wondering if you still experience going through each step as a decision, or since you're just acting on the instructions received from your mom, you don't really feel like you're making any decisions in the process?

**Participant (12):** This was the first time I was cooking that recipe. I don't think I was making any decisions by myself for the cooking process, like if it was something I had already made before, for example, fried rice which I was making in the previous video, then for that recipe I could make certain decisions during the process because I knew how to make it, but for this recipe since I didn't know how to make it, I was just sticking to the instructions my mom had given and so, I didn't really experience making any decisions, it was just trying to stick to the instructions as close as I could.

**Interviewer:** Interesting! Yeah, I totally get how you mean. So, here {00:42:15}, did you experience it as a decision to wash the fridge dividers?

**Participant (12):** Yeah, because I've seen that they were still a little bit dirty after I wiped it, so I decided to wash the up as well.

**Interviewer:** Alright, fantastic! So, in this one {00:42:58}, do you remember what's going on and what are you up to?

**Participant (12):** So, I was sitting down to work and I'd just made some tea for myself. This was in the night and I was a little stressed, so I made some tea and I was lighting my favourite candle just so I can sit down and work.

**Interviewer:** And did you experience it as a decision to make some tea and light a candle?

**Participant (12):** Yeah, definitely, because I don't light a candle every day, but I do it every now and then, but I think that day seemed like a nice day to light up a candle, so I just decided to do it.

**Interviewer:** Okay, and here {00:43:49}, you're filling your water bottle and what's interesting is that after you're done with filling the water bottle, you also water the plants immediately after that. I'm wondering how come you got reminded of the plants at that point?

**Participant (12):** Because I try to water my plants every morning, but that morning I was out, so I would have missed watering it and then, when I was having water, I remembered that I had to water the plants as well.

**Interviewer:** And did you experience watering the plants after you got reminded of them as a decision?

**Participant (12):** At that moment, yeah it was a decision.

**Interviewer:** How about to drink water at that point {00:44:29}? Was this something you experienced as a decision?

**Participant (12):** I mean, I was thirsty and I did think about it, but just because I was thirsty, I knew I had to drink some water, so I'm not sure if that was a decision I made.

**Interviewer:** Yeah, for sure. Okay, so here {00:44:54}, you're working and I'm wondering how do you go about arranging your tasks when you want to work? I mean like, how do you know what task to begin with and how do you generally, structure and plan your tasks and projects?

**Participant (12):** So, every morning I have a mental checklist of all the things I have to complete that day and I try my best to tick them all off from the list. So, what tasks I put on the list and how I prioritise them would first of all depend on the urgency, like what needs to be done urgently, so that would automatically be the first on the list of the things I have to do, but it also depends on how I'm feeling, am I tired or not, do I want to do something which is lighter work, or do I think that I can do something which needs more effort, and it also depends on what time am I sitting down to work, so based on how much duration I would have to work I would decide on the work. So like, even if I have like, three things in the mental list that I have to do, but I know that I'll only be able to sit for an hour and work because I would have to do something else after that, so I try to pick something from the three things which I know that I

can finish. So, even if I had already planned things I need to do, I still need to take a decision which one to go for at each time based on the time I have and everything else.

**Interviewer:** Okay, that makes perfect sense, yeah. So, here {00:46:12}, you keep checking your phone and replying to the messages that you're receiving and based on what you've explained earlier, I'm assuming the messages were quite important and you decided to respond to them?

**Participant (12):** Yeah, my phone screen lit up which is why I took my phone there, because I think with my friend, we were planning on going to the National History Museum the next day, so we were planning and booking tickets and because our communication was happening and so, I stopped working and I started doing that work [booking tickets, replying messages and planning collectively with friend in chat]. So, yeah it was a decision to stop working and reply to the messages and book the tickets first and because the messages were about the plan for next day, I decided to respond to them because like, the communication was happening there. So, the goal was to book the tickets for the next day.

**Interviewer:** Right, and you decide to put on some music here {00:47:46}?

**Participant (12):** Yeah, because I finally finished booking the ticket, so then I decided and it was a decision I took to play music, cuz I play music if I don't need to read something, and since I wasn't reading anything, I decided to play music.

**Interviewer:** And how did you choose what type of music to play?

**Participant (12):** Depending on my mood, like, if I'm reading something, I try to listen to just instrumental music, but if I'm not reading something and if I'm in a mood for maybe a happy song, then I'll play a happy song, but if the mood itself is a very chill and calm mood, then I'll listen to a slow song. So, it's mostly depending on the mood I guess.

**Interviewer:** And is choosing what type of music, or what track in particular, to play based on your mood and what you're doing, something you experience as a decision?

**Participant (12):** Yeah, it is, because even though I have certain playlists, but deciding which playlist I want to play at that moment and what song from the playlist I want to listen to is something I experience as a decision.

**Interviewer:** Interesting! In this one {00:49:19}, have you already decided to read a book, or was it something you just decided on the spot?

**Participant (12):** Deciding that I wanted to read at that point was a decision I made, but I didn't decide on what book to read, because I was reading that book for a while, so I just continued reading that.

**Interviewer:** Perfect! How do you decide when to stop reading?

**Participant (12):** So, I was reading several short stories, so I think the decision that I made there was how many short stories do I want to read, because initially I thought I'd read two, but then I really liked reading it, so I ended up reading an extra short story, so I think that's when I made the decision of how many short stories I wanted to read.

**Interviewer:** Interesting! In this one {00:50:37}, you're doing some grocery shopping and I'm wondering if you already know what you want to buy and you just directly for that without having to look at other things, or is it like, you browse the shop and decide what to buy and what are your options basically?

**Participant (12):** So, whenever I go grocery shopping, I make a list of things which I need and I do browse the aisles as well, cuz sometimes when you're making a list, you might not remember that you wanted a certain thing, but then you look at it and then you remember that's what you wanted. So, it's both making a list and also browsing for something which I have might forgotten when making the list, like I already know what I want to buy, but I also browse just to see if I've missed anything.

**Interviewer:** And what are you looking at here {00:51:17}? What's going on in your mind?

**Participant (12):** I was looking at the Mexican section, because I was looking for salsa. I had nachos at home and I wanted to make baked nachos, so I was looking for salsa for that, but I didn't end up finding a salsa which I liked, so I didn't buy it. So, I needed it for a meal I had in my mind and I wanted to make, which was baked salsa, but apart from that it's just general grocery shopping, like I had to get a couple of things which I know I always require in my daily cooking based on experience, and not specifically for that dish [baked nachos].

**Interviewer:** So here {00:52:39}, how come you made an interesting decision to start drawing?

**Participant (12):** So, there are just like, these few things which I like doing. So, I draw like, not every day, but more regularly than for example, reading a book, because reading a book is not something I do every day unless I started reading a particular book and I want to finish it, but like, I try to read, draw, write, so even in the previous video during which me and my friend were trying to make a plan, I'd opened my laptop and I was trying to write something, but

because I kept getting interrupted with the messages and the booking process, the flow was not happening, so I then decided not to write.

**Interviewer:** And may I ask what are you doing here {00:53:27}?

**Participant (12):** Oh, so, I have a list of places I want to visit and I had visited the National History Museum, so I was just ticking that off the list, because when I opened my bag to get out my pencil case, I saw the [note]book [inside the bag] and then I'm like "Okay, I'm just going to take the National History Museum off that [the list] before I start drawing".

**Interviewer:** Cool! You also decide to put some music on here {00:54:57}?

**Participant (12):** No, I'm choosing what I wanted to draw from.

**Interviewer:** Oh, okay, so you pick something from the internet and start drawing it. How do you decide what to draw from, like, what image to pick?

**Participant (12):** I just look at it and I see what I'm in the mood for, so I'm drawing a portrait of Harry Styles for one of my friends because she really likes him, so I just figured I'd just give that a shot.

**Interviewer:** That's super cool! So, you bring up the image you want to draw on your laptop, and then you look at it and try to copy it on the paper and every now and then you take a look at the image?

**Participant (12):** Yeah, because I try to copy how it is exactly, but I also do try to change a couple of things based on whether I feel like I can do it slightly better than the image itself, or if I feel like it's done really well and I can't [make it any better], so then, I just try to copy it manually, but those are just minor decisions I make on the spot, but otherwise, it's just more about just looking at the picture and trying to draw the same thing.

**Interviewer:** That's really interesting! So, every now and then you erase something from your drawing and redo it.

**Participant (12):** Yeah, if it doesn't turn out as well, so I just erase that part and redraw that. So, I'm constantly trying to compare it with the [model] picture and also because sometimes when you look at it, for example, you think that it doesn't match the proportion that you're drawing, so it's also looking at the image itself that I'm drawing and thinking if it feels okay, or does it not and also, comparing it to the original photo which I'm drawing from. {00:58:31} You see a lot of erasing because I was trying to draw the left hand and it was just not going good.

**Interviewer:** That's fascinating! So, do you always draw with just a pencil?

**Participant (12):** Yeah, I mean I draw with a pencil first and then decide if I want to outline it or leave it as a pencil, because this is one drawing of the theatre, I mean with the two masks, I decided that it looks better without outlining it with a pen, so I just left it as a pencil drawing, but all the other drawings I go forward and draw an outline.

**Interviewer:** Okay, so you suddenly went for your phone there {00:58:38}, and I'm wondering how come you checked your phone?

**Participant (12):** Because I heard the notification and saw that she had sent me a message, so I had to reply to them and that was a decision I made to reply to her messages.

**Interviewer:** Interestingly, you also add some minor details to your drawing.

**Participant (12):** Yeah, like I said, I try to add a couple of minor additions if I feel like that goes well with the picture, like, I just look at the drawing and all these minor additions I can only do once I feel like the drawing has started taking shape, and then I see how I can make it slightly better and then I decide if I want to make some additions to it, but when I'm doing the initial drawing, until I've done the major outline, I try to stick to the original picture as much as I can.

**Interviewer:** And do you experience these minor additions to the original picture as decisions you make?

**Participant (12):** I think it's more natural, because it just feels like naturally it would look better for the picture, because I've been doing this [drawing] for quite a few years now, so at this point it doesn't feel like a decision per se. It's also a little bit because of my experience with drawing as well, even though I haven't drawn that particular picture before, but because I've just been enjoying the process, it just felt natural, like for example, when I was drawing the left hand, it had a pose, but I realised that it was not going to fit on the page, but I still tried to make certain adjustments to see if I could still fit the pose in my drawing, but I tried and after a few times when it wasn't happening and it didn't look natural, I then made the decision that I should leave the hand pose out. So, yeah, there was a lot of decision making involved.

**Interviewer:** Fantastic! What are you doing here {01:01:21}? What are you thinking?

**Participant (12):** So, I finished the picture and then I outlined it with a black pen, and here I'm just holding it close to the laptop and comparing it to original picture and seeing if they're close enough.

**Interviewer:** And it seems like you feel like something still needs to be done with your drawing?

**Participant (12):** Yeah, I was just not satisfied with the left hand of the picture [drawing], like when I put them [the original picture and the drawing] next to the each other, I'm like "No, this [drawing] still needs a little more work" and that's exactly when I decided to leave out the hand pose, because I was not satisfied with how it looked. {01:02:10} So, I needed a book so that I have a little more support when I'm trying to draw.

**Interviewer:** Did you experience using the book for more support for your drawing as a decision?

**Participant (12):** Yeah, that was a decision, because the first couple of times when I outlined it, I saw that it would leave an impression on the next page, so then I made a decision that I'm going to keep another book under the drawing book so that it won't leave an impression on the drawing book.

**Interviewer:** Right, right, and every now and then you take a look at your phone.

**Participant (12):** Because I'm having a conversation with my friend and she wanted me to come out and see her, but we were deciding on the plan, so I was replying to the messages whenever she sent me a message, but that's the thing, like whenever I took my phone I only reply to her message and no other notifications.

**Interviewer:** Okay, but here {01:03:11}, you saw her message and you didn't reply and you went back to your drawing.

**Participant (12):** It wasn't her message, it was someone else's message, so then I was like "Okay, that can wait. I'm going to finish my drawing in the meantime".

**Interviewer:** Okay, and was not replying to that message something you experienced as a decision?

**Participant (12):** Yeah, because when I do these things, I just avoid any other distractions, like for example, in the reading video you could see that I do not touch my phone at all during the entire process of reading. Similarly, when I'm drawing, if it wasn't for the fact that I had to

meet her right after, then I would not have replied to her message either, like I would just focus on finishing my drawing first.

**Interviewer:** Alright. Well, that's all from me. Thank you very much indeed. I'm going to stop recording now.

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PARTICIPANT NUMBER: 10

PARTICIPANT INFORMATION: Female, 22

DURATION: 00:39:55

DATE & TIME: 2021-06-19 | 20:25:56

**Interviewer:** I've started recording now. Okay, thanks very much for your time! Right, so, let's dive in. What's going on here {00:01:11}? Do you remember?

**Participant (10):** So, I want to wash the dishes basically and here {00:01:14}, because I was watching a video the previous night and it was a discussion between two feminists and usually when I wash the dishes, I listen to something to kind of, make use of that time as well, so I put that here, so I could listen to it while I was washing the dishes.

**Interviewer:** Okay and here {00:01:34}, you're bringing the laptop closer to the sink so that you can hear the video while you're washing the dishes?

**Participant (10):** Yeah, yeah, because when you're washing the dishes, the boiler is right next to me, so I can't hear it [the video] unless it's very close and the volume of the laptop can't go higher than a certain amount and I think further on, I bring it even close than that and I clear the counter up [in the kitchen] to bring it closer so I can't hear it.

**Interviewer:** Okay and did you experience bringing the laptop closer so you can hear the sound of the video as a decision and something you decided over?

**Participant (10):** I think the first that I was doing it [bringing the laptop closer to hear the sound] I was like, figuring out the logistics of it, like, where should I put [it], because I used to

actually listen to something on my phone before, um, so, yeah but, like, the first time was a decision but then from there it's more like a habit of how you manage to wash the dishes basically. Yeah, now I'm clearing the space {00:02:43} so that when I wash the dishes I can [listen to the video on the laptop].

**Interviewer:** I see. Alright. So, you put the cutting board in the above cabinet and I'm wondering if choosing where to put it was something you experienced as a decision, or is it more like, everything has its designated place around the kitchen so you don't need to think twice about where the board goes and you just put it there without having to really decide about it?

**Participant (10):** Yeah, that's exactly it, everything has its designated spot and I don't necessarily have to decide where to put things when I'm clearing out the kitchen and so {00:03:10}, I took the white thing [board] out as well, so I'm just rearranging the cabinet based on what's supposed to be where basically, so yeah, because it's got its designated space and I don't have to make any decisions.

**Interviewer:** Okay, yeah, I see. So, how come you decided to wash the dishes at that specific moment. Was this pre-decided, or you just decided like, spontaneously?

**Participant (10):** Well...so, it was my turn to wash the dishes but I don't think we have a lot of clean dishes left in the house at this particular point [both laugh]. So, if I didn't wash the dishes, I don't think we had a lot of like, any like, small dishes for breakfast. I mean, I think we have cups as you saw, but yeah, we didn't have a lot of clean dishes left at that point and it was my turn. So, here {00:04:19}, I'm trying to kind of, arrange the spoons and stuff in a way that they would be, you know, parallel to each other and kind of, yeah, so that everything has its place and when I want a spoon and I open the drawer...so everything has its designated place, I'm just making it cleaner because of my OCD basically, [both laugh] because we don't have these things in the kitchen where you have like, a separate space for spoons and forks and we kind of have to arrange it ourselves, so I do it every time, especially because my mum, whenever she comes, she ruins it, so yeah...

**Interviewer:** That's totally relatable! So, is it like, you have this mental image of how you want the forks and spoons to look like in the drawer, how tidied up you want them to be, and then you try to reach that state from which you kind of have some sort of an image in your mind?

**Participant (10):** Yeah, exactly. Yeah, so because I want things to be clean and organised, even if you're not necessarily seeing them, like, you don't have visuals on them, you know, and even with my room it's the exact same. So, whenever you're opening my drawers, everything is organised and I like to know that everything is organised in my drawers, or the kitchen and cabinets.

**Interviewer:** Okay, right. So, here {00:05:33}, do you remember what's the general goal you're following?

**Participant (10):** Yeah, so, basically the goal was cleaning this spot, so I could put the towel on it so the towel wouldn't get dirty underneath. So, the goal was still to wash the dishes and leave them on the towel to dry basically.

**Interviewer:** I see and how do you know how clean you want the table to be? As in, how do you when to stop cleaning the counter and so like, how clean is clean enough for you? How do you decide to stop cleaning at that point {00:05:53}?

**Participant (10):** Um, I think usually it's like, if I don't see anything like, any dirt and stains left on the table...because that is a wipe that you use for Covid stuff as well, so it's like alcohol and stuff like that. So, yeah, usually, when I use that I'm just fine and I feel like something is clean, but the other thing is like, if there are small, like, small bits of bread or like, crumbs or anything like that on the ground or on the kitchen table or whatever, also they [small bits of food and crumbs] shouldn't be visible for it to seem clean to me. Also, we right now have a[n] ant problem, so like, yeah, I just made sure that the surface is clean enough and there are no ants on them [surfaces] as well.

**Interviewer:** Perfect! So, it's as if you get some visual feedback from the table to see if you can see crumbs or ants or anything of that sort of it and then you evaluate how clean it is based on this visual feedback you get from the surfaces?

**Participant (10):** Exactly, yeah.

**Interviewer:** So, here {00:07:05}, do you remember why you went back to the room?

**Participant (10):** Yeah, because I had brought my own food to uni the day before and I wanted to get that Tupperware because I wanted to clean all the dishes already so I wanted to make sure I'm washing everything that needs cleaning.

**Interviewer:** Did you just remember about the Tupperware in your bag?

**Participant (10):** Yeah, yeah, I just remembered that, because of the spoons. So, we have three of the small spoons and I realised that there were none in the drawer and the things that needed to be washed.

**Interviewer:** Interesting! So, you remembered from the three small spoons that you still have Tupperware left in your bag from the day before and so, did you it as a decision to go to your room and retrieve it from your bag so that you can wash it while washing all the other dirty dishes?

**Participant (10):** I think yeah, because I was thinking that if I don't wash it right now myself, then we're going to lack a spoon and I'm the one who uses the spoons because I make coffee and stuff, and then I don't know when the next time we're going to wash the dishes is gonna be, because we usually leave it [washing the dishes] until very late and I would have to wash it anyway, so better I do it now than later on...yeah, basically that was the thinking process which basically, made me decide to get the Tupperware from my bag and wash it.

**Interviewer:** That makes perfect sense! Alright, so here {00:08:27}, you move the laptop even closer so that you can hear the video better?

**Participant (10):** Yeah, I think the whole process of cleaning that space [the surface on the kitchen counters] was so I could bring the laptop closer. Yeah, here {00:08:41} I'm basically preparing my space, like I usually do, before I actually start washing the dishes. Yeah, and I like, arrange the dishes in a specific way as well, so like, I always put them in a way that when I wash them and I'm going to put them to away to dry, they would be ordered by height and then, I always...like, if there are things in my way, I wash those first and I have a system of what to wash first. So, I wash the spoons and forks and cutlery first and then I wash the small plates and the big plates and then I wash like, the cups and then everything else, but here {00:09:23}, I wash the plastic ones [Tupperware] first because they were already in the sink and they were blocking my way.

**Interviewer:** I see. Interesting! So, it seems like you have a pretty specific structure for how to wash up. I'm wondering if you experience washing the dishes through the structure you just explained as a decision, like, what to wash first and how to pursue the goal of washing the dishes basically, is this something you experience as having to decide upon?

**Participant (10):** I think, um, again, for the first few times I definitely experienced it as a decision. So, I realised through the first few times that, I don't know, if I wash the smaller plates and then the bigger plates and then they'll look when you're arranging it or stuff like

that, like, it was like basically, I did it a few times and realised what's the best or the more efficient way of doing it and it was a process of like, trial and error before finding the most efficient way of doing it [washing the dishes and leaving them to dry]. So, yeah, now it's more of a habit, but it was definitely a decision through the first few times.

**Interviewer:** Okay, I see. So, right now {00:10:04}, as you're washing the dishes, you don't experience what to wash first as a decision?

**Participant (10):** No, not really, unless like, there are extra stuff there and I need to kind of, figure out what I want to do with them which I would then have to like, decide basically.

**Interviewer:** Yeah, for sure. Do you remember what's going on here {00:11:09}?

**Participant (10):** I was sending an email...yeah, I wanted to send out an email.

**Interviewer:** Okay, so you're working here {00:11:44}, and then you take your phone. Do you remember why you went for your phone?

**Participant (10):** Yeah, because I wanted to listen to my interview recordings and because on my phone I can put bookmarks on the voice notes, I use my phone rather than my laptop because I have them on my laptop as well, but yeah, I prefer to do it on my phone. Okay, I obviously check my messages as well! [both laugh]

**Interviewer:** Did you experience taking your phone here {00:12:13} as a decision?

**Participant (10):** I think taking my phone was just like, the thing to do, because this is the page I have for coding my data basically, so I was like "Okay, I need to start doing this right now", so I'm not sure if I could say this was a decision. What I did experience as a decision was to start coding and this was just part of the process which just came like, naturally basically.

**Interviewer:** Yeah, no, that makes perfect sense! What about checking your messages on WhatsApp then? Was that something you experienced as a decision after you picked up your phone to listen to the interview recordings?

**Participant (10):** I was waiting for my mum to respond to something and she hadn't and the fact that I saw that she hadn't responded, I made a decision to kind of, poke her and say, you know...I sent her the two eyes Emoji indicating that, you know, why haven't you responded yet, so yeah, I did experience that as a decision actually.

**Interviewer:** Okay, and you're playing something on your phone here {00:13:24}?

**Participant (10):** Yeah, I'm playing something. So, I had listened to it until a certain a minute and then I play it to listen to the rest of it basically.

**Interviewer:** Okay, I see. So, generally speaking, how do you go about deciding what task to do first when you start working? So, how do you prioritise your tasks and how do you decide which task to get on with after deciding to sit down and like, work?

**Participant (10):** Usually, the things that are relevant to others, so, for example for the research assistantship that I'm doing, if I have to send them something, or for a work project if I have to make a post, hand in something, whatever...the things that are related to other people, I try to prioritise those and then my own work, so like, the thesis or like, writing an essay or whatever, it usually comes next, unless if it's something that's like, constantly there and then I guess I allocate specific time for [it] usually.

**Interviewer:** Mm hmm, and so, right now {00:14:30}, you're listening to the interview recordings and you're coding at the same time?

**Participant (10):** Yes, I'm listening to interviews and because they're in Persian, I didn't want to have to transcribe all of it because it would have taken a lot of time, I'm listening to it instead. So, instead of typing the entire thing [transcript], I just write down that in this moment, she talks about this and that seems relevant and then I say [type] what could be the relevant code for it, and then I have an extra column in the Excel file which I type out the quote in. So, if I choose to use that in the final work [draft], I'll write down the entire quote basically.

**Interviewer:** And each time you experience doing all these micro tasks and writing them down in the Excel sheet as a decision?

**Participant (10):** No, just the first time. So, the thing is, I put off doing my transcription for a very long time, because I actually wanted to transcribe all of it, but then I was so late that I realised I couldn't transcribe the whole thing [interview] because I transcribed one and I saw how long it takes. So, basically, yeah and I'd already talked to somebody about it because they told me it's crazy that you did like, 30 interviews in the first place and then she said that instead of transcribing all of it, she told me that it's going to take a really long time, so you can't do it on your own and instead you can have a system where you just write quotes on Excel and then I just enhanced it a step further by instead of writing the quote, I just wrote the content that I thought was interesting because I remembered a lot of things that they [participants] were saying as well. So, yeah, basically I thought about it for a while and then when I saw that I can't realistically transcribe all of it [interviews] as well, I started doing this which is a system

I thought of and had to like, decide for it the first few times but not anymore. So, here {00:16:41}, I just keep stopping it [interview audio files], bookmarking it and I'm continuing.

**Interviewer:** And your sister walks in here {00:17:01} and it seems like you're having a conversation together. Do you remember what was that about and what's going on basically?

**Participant (10):** I think we were writing the things we have to buy. Yeah, so, she wanted to go shopping and we were writing the list of the things that she has to buy basically and that's why I went to the fridge and got the paper.

**Interviewer:** So, how come you go the fridge here {00:17:34}? What was the goal?

**Participant (10):** So, we have the list of the things we want to buy and the foods that we have, you know, arranged to eat during the week. So, we buy things we need for those [meals] from before and online, and then just to save the amount of paper that we use basically, I usually put them [the piece of paper used as a list] up there [on the fridge] so we can keep using them until they're all filled. So, that's why I came and picked this paper from the fridge.

**Interviewer:** Okay, this is interesting. So, you have certain meals that you plan to have during the week. Do you decide on these together with your sister?

**Participant (10):** Yes, so, usually if we're both here [in London], every Monday the things we ordered would come and then we would sit at lunchtime and write things that we want to eat for the next week. So, we would start ordering for the next Monday. So, we would think "Okay, so we have seven days. What are the foods we wanna eat? And then what are the things we need to buy? And then, are there things we need to buy for breakfast, fruit, salad, everything?", and then we would write them down and I would order them for the next week. Nowadays we just do it two days before rather than a week before.

**Interviewer:** I see, and do you experience deciding what to eat for the week and what to buy for those pre-planned meals as decisions which you have to make?

**Participant (10):** Yeah, yeah, for sure, because we have to, I don't know, think about what are we going to have during the next week and if for example, our parents are coming over one day, or my sister is going out one day and will not be around, or if we have like, deadlines during which one of us won't be able to cook and based on all of these, we basically decide together on the foods we want to eat during the week, yeah.

**Interviewer:** So, here {00:19:16}, you want to decide what your sister should buy since she's decided to go shopping?

**Participant (10):** Yeah, so she wants to go and buy it [food and ingredients on the list] herself, because we already ordered for the beginning of the week and we've run out of some stuff and so, she's going to buy what we need herself and we're making a list of all the things she needs to buy.

**Interviewer:** And how do you decide what to write down on the list here {00:19:38}?

**Participant (10):** So, we were going to have guests over, so based on that, like we were thinking of what are the things that we needed for the meal that we had decided to prepare for the guests and then we were like, writing the things [ingredients] we needed for that [the meal]. Yeah, so, based on that, we were just thinking of what things we need that we don't already have and stuff like that.

**Interviewer:** This is really interesting! So, my understanding is that you first decide together what meal you want to prepare and then based on what ingredients you need to make that meal that you don't already have, you decide what to put on the list and buy. Is this right?

**Participant (10):** Yeah, but also, usually what we do is like, if we have ingredients leftover from the week before that we didn't anticipate, we kind of decide based on that what to make. So, here {00:20:14}, we have some courgettes left from before that we definitely know we need to make, like, I know we had something from the week before that I hadn't made and we needed to definitely make it and I basically told her [sister] to buy this [an ingredient] so we can make that food that we need to make as well. So, it works kind of, both ways, like, top down and bottom up, yeah.

**Interviewer:** And do you experience all these decisions on what to buy for what you want to make and what to make based on what you already have as decision?

**Participant (10):** Yeah, yeah, for sure! Yeah, because there is a lot of like, thinking and planning involved based on so many things that we need to anticipate basically.

**Interviewer:** Alright. So, here {00:21:03}, what's the goal for which you come to the fridge?

**Participant (10):** I wanted to check if we didn't have something in particular, or if we did have to then decide whether to write it on the list or not. So, I was checking to see what we have or don't have, yeah. So, I'm exactly just checking the things we have to see if I need to add anything to the list and make sure I'm not forgetting anything that we would need, and I did add something to the list {00:21:44}.

**Interviewer:** Do you experience writing down on the paper what to buy as a decision you make?

**Participant (10):** Yeah, sure. Yeah.

**Interviewer:** Okay, thanks for this! So, in this one {00:23:24}, do you remember what's going on and what you're doing and like, what's going on in your mind?

**Participant (10):** So, as you can see, I do a lot of cleaning! Yeah, so I was cleaning my desk because I wanted to study and I just wanted to come back to my own desk [to continue studying] and I was just clearing it up. So, the goal was to continue studying and so for that, I was clearing up my desktop [surface of the desk].

**Interviewer:** And each of these pens and pencils that you put back in your pencil case here {00:23:44}, do you experience it as making decision? I'm asking because you take each one and you put them back in the pencil case one by one and it seems like you're doing this quite carefully and you're paying attention to it.

**Participant (10):** No, I don't experience putting the pens and pencils back inside [the pencil case] as like, making a decision, but again, this is a decision that I have made previously and I just go by it, so I guess that's just like, part of the process of clearing up my desk and that was the decision basically. Yeah, but, so basically, I am a bit OCD and stuff like that. I like all my pens to be aligned in the fact that all of their heads are in one place and they're all the same way basically. So, the fact that I was picking them up one by one, I was just checking that they're all in the same direction in the pencil case. That's what I'm doing, but then, again this is something I decided on at some point before and I was just going along with I had already decided some time before and it's not that I constantly have to decide for it.

**Interviewer:** That's actually super interesting! So, what's going on here {00:25:08}? What are you up to?

**Participant (10):** Um, so, I come from my brother's house and we had a small kind of party for my dad there. So, I'm not sure exactly what I'm doing but I was very happy. So, he [brother] had bought a lot of groceries and he basically gave me some of them. So, he gave me the milk and I continue to drink the milk there {00:25:38} because we didn't have space for it [in the fridge] and also because he'd given us cake. I check the date here {00:25:44} to see when that's [the milk] going to expire and it was 'til that day, so that's why I drink it.

**Interviewer:** Okay, so you wanted to check the expiry date for the milk and then you checked it and then you were like “Okay, this is good to drink”?

**Participant (10):** Yeah, so basically, I didn’t even know we had milk left. So, I just checked and because I didn’t remember, I just checked ‘til when is it okay to drink it by basically and then later, because my sister wanted to have the cake, I was like “I’m just going to drink it with the cake”. So, because that day was the expiry date, I decided to drink it. {00:27:04} Yeah, my sister was making tea for herself and then I pour the milk and then I realised that it was a bit too much for that cup.

**Interviewer:** I see, okay. Did you experience having the milk at that point as a decision {00:27:21}?

**Participant (10):** Yeah, yeah, because would have normally had tea, but then I realised that it’s late and I wanted to sleep soon and then, at the same time, the milk is going go bad [expired] by the next day, so let’s just drink that [the milk].

**Interviewer:** So, here {00:28:18}, I’m wondering if you came in the hallway specifically for the book, or did you take the book from the ground because it came into your visual field? Because it seems like to see it here and then you bent down to pick it up. Were you looking for it or something?

**Participant (10):** So, I don’t think my plan for coming there was to pick up the book, because I’ve just come from my brother’s house and then, I basically was cleaning the things out there and putting the milk back in the fridge so it doesn’t go bad and putting away the groceries he [brother] had given me and then I came back there [in the hallway] and I saw that oh, I haven’t still picked up the book to see it. So, that’s why I picked it up, but I did it because I just saw it there so it wasn’t something that I had decided on before basically.

**Interviewer:** Okay, and so here {00:29:25}, it seems like you and sister are going to have some cake. Did you experience it as a decision to have some cake?

**Participant (10):** Yeah so, she wanted to have cake and so I was like “I’m gonna have cake too”.

**Interviewer:** Was having cake always part of the plan, or did you like, see your sister having and you just had like, a craving for it and decided to have some on the spot?

**Participant (10):** That [having cake] was not the plan, because the cake was intended for her. I was just like “If she’s gonna have cake, I’m gonna have it because I may not have it later, or I might not be able to have it later on”.

**Interviewer:** Smart move! [both laugh] So, here {00:30:19}, as you’re having the cake, I’m wondering if each time you pick a piece and put it in your mouth and then you sip some milk, do you experience these as a decision, or is it like, something unconscious?

**Participant (10):** I think maybe the few like, you know, bites, to kind of get the right balance of the taste of the cake and the milk, and then after a while, much like most of the decisions we’ve talked about until now, it just becomes more automatic I think and then like, after a while the goal just becomes finishing it rather than savouring every bite, I guess.

**Interviewer:** So, I think here {00:31:46}, you’re ready to call it a day and you’re planning to sleep soon?

**Participant (10):** I think it was around 11:30 or something, so yes, it was quite late because I usually sleep like, before 12.

**Interviewer:** Okay, and here {00:32:09}, what you do is that you take your sister’s plate to the kitchen as well, as you’re taking yours.

**Participant (10):** Yeah, I just put them in one [pile] and took them [to the sink] so that they would be easier to wash later on, because we have the ant problem as well, so I kind of have to put water in it so the ants won’t gather.

**Interviewer:** Okay, and did you experience this as a decision to take the plates to the sink and put them into one pile for later on and then pour water in them because of the ants?

**Participant (10):** Definitely! That is like, constant decisions for me which I experienced. I took those decisions very consciously.

**Interviewer:** It seems like you’re also tidying up the kitchen a little bit here {00:32:48}.

**Participant (10):** So, my sister reminded me that we hadn’t put the food from lunch back in the fridge, so I just put it and I drank the rest of the milk as well to finish it off and I put the new milk I had brought from my brother’s house in the fridge as well and because I drank the previous milk, I just put the new one in its place instead of the previous one which I finished off and like, it was mission accomplished then, which is why I make the thumbs up there {00:32:12}. [both laugh]

**Interviewer:** And you do something quite interesting here {00:33:42}. After closing the fridge, you go back to it and it seems like you're double-checking for something.

**Participant (10):** I think it was like, the noise that the fridge made was not the noise it usually makes when it's closed properly. So, that's why I checked because it made like, a different sound that it usually makes basically.

[Continued...]

## CODEBOOK

<b>Global theme:</b> The subjective experience of DM in the process of action control as the actor engages in various every day activities.			
<b>Theme</b>	<b>Code</b>	<b>Description</b>	<b>Example</b>
Future desired/required state	Mental image of the goal/sub-goal	A mental simulation/representation of the final state which has been chosen to be pursued by the actor.	“I have a mental image of how the final dish is supposed to look like” (P12, female, 23)
	Motive	A desire that the actor needs/wants to satisfy.	“I felt like having something savoury” (P2, female, 22)  “I was just feeling hungry at that time.” (P6, female, 23)
	Simulated action/task	A mental simulation of the actions/tasks that need to be done in order to reach a future desired state. It is a mental simulation of the road-map for	“I knew I need to study in my room and if I just don’t clean the room, then I will just be a bit unhappy and my desk needs to be clean and empty when I study” (P5, male, 22)

		which the chosen goal or the feeling of satisfaction is the destination.	“The goal I’m following here is cleaning my room and making my room more like, clean and more aesthetically pleasing” (P4, female, 24)
Installations	Physical environment	Objects and the physical affordances of the environment through the process of action regulation.	<p>“It needs to be a bowl so that I can put water in it” (P6, female, 23)</p> <p>“We only have French press, so that’s the go to coffee in this house” (P9, female, 26)</p> <p>“I wasn’t sure like, if we have something that you use to open the jar with” (P7, male, 25)</p>
	Automatic processes	Rapid autonomous processes which are assumed to yield default responses.	<p>“That’s how I always clean” (P12, female, 23)</p> <p>“I wash my hands every time after I clean, so, it’s mostly a habit by now that I’m so used to” (P1, male, 28)</p>
	Proxy decision-makers	Relying on others to make the decisions which contribute to the actor’s future desired state	“She [girlfriend] has made that dish before, so I kind of knew what I need to do because she was telling me” (P7, male, 25)

Evaluation and judgement	Completed activity	When an activity is stopped because it is perceived as completed by the actor.	“I was done tidying up the room” (P10, female, 23)
	Obstruction	When an activity is stopped due to a perceived obstruction.	“The Wi-Fi is not really working” (P7, male, 25) “I ran out of mopping liquid” (P12, female, 23)
	Satisficing mindset	Outcomes that are good enough and satisfactory to the actor, even if not precisely aligned with the initially decided future state.	“I’m pretty sure I go back and forth as well until the overall situation is like “okay, this feels like it’s clean enough” (P1, male, 28) “I just want the room to be clean enough” (P3, male, 23)
Feedback (trial and error)	Experience	The results and outcomes of activities accumulated as the actor’s experiences.	“I’ve poured oil into pots and pans enough to be able to roughly tell how much I need and how two teaspoons would look like” (P9, female, 26)

	Learning	Repeated activity and accumulated experience.	“I’ve been drawing for quite a few years now so at this point it doesn’t feel like a decision per se” (P12, female, 23)
Efficiency	Saving time	Increasing the speed of DM and activity as much as possible.	“It’s just the shortest way [to get to the tube station], and I just want to get to uni as soon as possible, so I just take the most straight forward and shortest route” (P4, female, 24)
	Saving energy	An effort from the actor to reduce the physical and cognitive energy which is invested in making decisions and reaching future desired/required state(s).	I’m running around sweaty for like a very long time now, and I also realised, I could have showered but, you know, I might as well streamline the activities. So, it's like if I’m coming back home from a run anyway and I need to shower anyway, right? I'm going to clean everything, right?” (P1, male, 28)