Fostering people's autonomy during transitional phases by facilitation self-reflection

Dorothee Clasen | Ubiquitous Design, Experience & Interaction | University of Siegen, Germany | dorothee.clasen@uni-siegen.de

Going through a life changing transition, whether it is self-imposed or forced by external circumstances, has a profound impact on people's wellbeing and everyday life. Either can lead to a lack of autonomy, which is essential for well-being. The experience of autonomy is fundamental to people's well-being, as they want to live an authentic, self-determent life. This involves making choices that align with personal values, wants and identity. [1, 4, 9, 10] Self-Determination Theory (SDT) [4] defines autonomy as being capable of making self-actualized choices. This involves deeper self-reflection on what is personally relevant to one's currently evolving and changing identity. Following the noting of McConnell's multiple-self-aspects framework [8], a person self-image consists of numerous self-aspects. They withhold different wants, values or goals.

Whether intrinsic or extrinsically imposed, transition phases are often marked by uncertainty, stress, and heteronomy, due to major changes in the past of people's everyday lives and identity. However, these transitions also offer opportunities for growth, self-discovery, and involve re-alimenting one's lives with core values. [3] This is challenging, and technology such as personal informatic (PI) systems should support people in engaging in such self-reflection. However, Research on PI systems mainly focus on nudging people toward predefined, medically motivated directions, rather than facilitating self-reflection on what is important for them during this challenging phases. Furthermore, currently available PI systems fail to stimulate deeper self-reflection [5] but rather visualizes tracked data without assisting people to draw relations between these and themselves. [2]

Enhancing autonomy during transitional phases

My current research is focused on how technology can support people in making choices that align with themselves, thus fostering their sense of autonomy in everyday life. [3] Based on the mentioned theory, we explore how such technology can support individuals in making choices, that align with their wants, values and identity. This is facilitated by mindfully foregrounding everyday choices, exploring one's scope of options and questioning whether these align with one's identity by engaging in self-reflection. Hereby fostering people's autonomy and wellbeing in everyday life. (figure 1) We discuss an initial framework for guiding individuals during this process. Furthermore, we discuss design strategies for autonomy-enhancing artifacts (figure 2) and how they can cause an interventional reflective pause in everyday life.

We explored our framework by conducting two studies. For the first one (N=8), we conducted interviews and guided individuals through the framework phase, after they finished a self-observational task. For the second study (N=7), we designed a non-dynamic chatbot prototype, that facilitated interventional choice-reflection and probed it during a 10-day study in the field. Both showed that our approach allowed individuals to either feel reinsured in their autonomy, have a mediocre sense of autonomy or expressed a diminished sense of autonomy, when most of their choices were not aligned with themselves. Furthermore, individuals who shared experiencing a lack of autonomy became more aware of this issue and expressed their desire for change, which can be an impulse to undergo a self-imposed transition.

Unintentionally on our part, six of our participants were currently in a phase of transition, and another one realized through the participation that she desires to initiate a transition. These individuals benefited significantly from the external stimulus to self-reflect. Identifying their heteronomy certainly caused negative emotions, however most would link it with their intrinsic motivation of going through a self-imposed transitional phase, such as finishing a dual study program or taking a semester abroad. This reinsured and nurtured their sense of autonomy during transition. Another transitioning person shared that prior to participating, she was well aware of her daily choices and limitations due to a chronic illness. Yet, the facilitated reflection on her - though limited - range of choices helped her to discover previously unseen options, which in turn fostered her sense of autonomy regardless of her physical limitations. Furthermore, one participant in our second study, could not identify similar meaningful relations between her heteronomy and daily choices. This caused her to become more aware and reinsured about her wish to overcome her lethargic self-aspects and emancipate herself by moving out of her father's house, despite her chronical illness.

Transitional phases demand people to experience numerous changes in their lives. The impact and potential of technology during such phases need further discussion within the field Human-Computer Interaction and beyond. With our research, we contribute to the notion of similar works [6, 7, 11] that strive to rather empower individuals in their autonomy than to nudge them into certain behavior patterns in everyday life and during transition.

APPENDIX – ADDITIONAL FIGURES

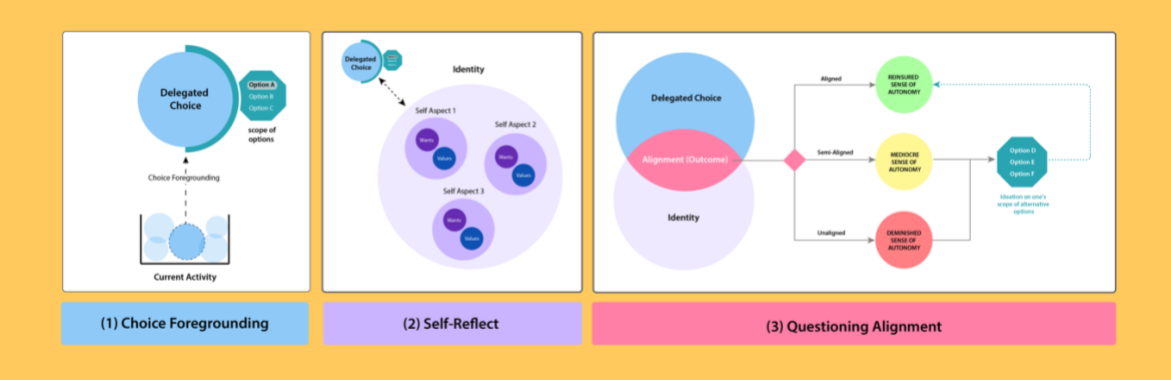

Figure 1: Diagram of an initial framework to foster autonomy-enhancing choice-reflection in everyday life. Phase (1) involves foreground a choice within a person's current activity and their scope of options within this choice. Phase (2) demands drawing relations between this and aspects of themselves, for instance regarding certain values or wants. Phase (3) focuses on asking questions on the alignment between the foregrounded choice and themselves.

Figure 2: A draft for a plate-shaped autonomy-enhancing artifact (AEA), that evokes choice-reflection during dinner (left) and an AEA app mock-up, that addresses different self-aspects to evoking reflection on their alignment with a person's current activity and involved choices. (right) [1]

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[1] Please note that when editing Figure 2, we used Adobe Photoshop's embedded image creation tool for a) placing food on our CAD-built model of the AEA prototype and b) for changing the woman's appearance by alternating her clothing and hairstyle. Furthermore, the blurred self-aspect images in figure 3 were edited with the same adobe photoshop tool.

Dorothee Clasen

 # The basics
German | 37 years old | located in Cologne (Germany) | female

 # Research interest regarding the "Life in Transitions" Workshop
- empowering individuals to experience or regain autonomy during life transitions
- facilitation self-reflection on one's changing identity and self-concept in order to make authentic, self-determined choices
- empathize the importance of intrinsic motivations and self-discloser to support wellbeing
- ensuring meaningful sense-making of personal informatic data

 # Current position and research
- a junior research assistant at the University of Siegen and a PhD candidate
- part of Marc Hassenzahl's research group: Ubiquitous Design, Experience & Interaction

- presenting a LBW paper on this year's NordiCHI'24 in Uppsala (https://doi.org/10.1145/3677045.3685442)
- research focus: how technology can foster autonomous choice-making in terms of wellbeing and everyday life
- working on this in collaboration with a neuroscientist and an ethicist
- funded by the German Federal Ministry of Education

 # Previous position, education and works
- Background in "integrated design Studies" at KISD, Cologne University of Applied Sciences
- Bachelor and Master of Arts, Germany
- Teaching and held workshops at KISD (Germany), University of Wuppertal (Germany) and Chiba University (Tokyo)

- Haptic driven HCI, tangible interfaces & assistive interfaces (InBrace)
- Digital manufacturing methods and programmable materials
- Co-inventor of a 3D printing method for flexible foam
- rapid prototyping, design thinking & human centered design