

Building an Ontology of the Self: Sense of Agency and Bodily Self

Luka Oprešnik*
lo62831@student.uni-lj.si
University of Ljubljana
Ljubljana, Slovenia

Tia Križan*
tk85796@student.uni-lj.si
University of Ljubljana
Ljubljana, Slovenia

Jaya Caporusso
jaya.caporusso@ijs.si
Jožef Stefan Institute
Jožef Stefan International
Postgraduate School
Ljubljana, Slovenia

Abstract

We present provisional work aimed at developing a comprehensive ontology of the Self. The Self is understood as a complex construct encompassing distinct yet interrelated aspects such as Sense of Agency (SoA), Bodily self (BS), and the Narrative Self. Drawing on existing literature, we define SoA and BS, further decompose them into elements, understood as the core components constituting each aspect (e.g. Moral Agency or Sense of Ownership). Elements are characterized by modes, defined as specific ways in which elements manifest (e.g. active, responsive, passive). Where necessary, modes are grouped in sub-elements for greater clarity. Each category of the ontology is situated in relation to certain others and features a definition. To support development of instruction for future labelling, a broader framework–knowledge base–is constructed around the ontology. In it, a curated corpus of representative instances drawn from phenomenological interview transcripts and online forums is paired with commentary on relations, interactions, disambiguation, and sources. The ontology and knowledge base are intended not only to support the development of computational methods for the identification of Self-related aspects in text, but also to serve as a common base for further research of the Self.

Keywords

self, sense of agency, bodily self, ontology

1 Introduction

The Self, "the (perhaps sometimes elusive) feeling of being the particular person one is" [25], is a complex, multi-aspect entity [8]: it encompasses, for example, the experience of one's body, thoughts, emotions, and sense of agency. The Self at large [25] and many of its aspects are widely addressed in cognitive science, psychology, and related disciplines (e.g., [2], [20], [8], [7]). For example, the sense of agency is investigated in relation to depression [19], while bodily experience in the context of depersonalisation and derealisation [27].

Our work is part of a larger project to develop a computational framework capable of automatically identifying the presence and mode of Self-aspects in text [10]. The final models could be used by professionals across disciplines to detect Self-aspects most relevant to their specific objectives, based on textual data such as clinical interviews or personal narratives. To achieve this

goal, it is fundamental to identify and define the relevant Self-aspects. However, the studies on the Self—conducted in different disciplines and with various focuses—lack a unified terminology, and a comprehensive ontology of Self-aspects is missing.

In this paper, we present the provisional work conducted to build an ontology of the Self. In particular, we have so far focused on two aspects: Sense of Agency (SoA) and Bodily Self (BS). In Section 2, we address existing literature on the Self. In Section 3, we set our research objectives. Section 4 details the methodology used to review relevant scholarship and build the ontology as well as the knowledge base. In Section 5, we describe results of our work to date, while the full knowledge base is available in the Appendix. Section 6 offers a discussion of the results, identifying key findings. Section 7 points out study limitations and outlines next steps as well as possible future work.

2 Related work

Caporusso [8] conducted an empirical phenomenological study on dissolution experiences with a particular focus on the Self. The codebook developed based on the analysis of phenomenological interviews is a first step towards a framework with hierarchical organization of the experience of the Self, featuring category descriptions, examples, and comments. Building on previous theoretical attempts to explain the experience of the Self, the author also identified several distinct Self categories, two of which closely align with our understanding of Sense of Agency and Bodily Self. A study by Ataria et al. [1] similarly examined the phenomenological nature of the sense of boundaries based on a single subject with 40 years of experience in practising mindfulness. From his descriptions they developed seven experiential categories, of which Location, Self, Agency (Control), Ownership, and Center (First-Person Egocentric-Bodily Perspective) were of interest for us. Similarly, Nave et al. [20] examined reports from forty-six meditation practitioners who—under carefully controlled conditions—attempted purposeful dissolution of self-boundaries. They identified common themes, which they grouped into six experiential categories. Five of them (Self-Location, Attentional Disposition, SoA, First-Person Perspective, and Bodily Sensations) relevant to our work.

Unlike these, most other studies we examined tend to focus only on a few or a single dimension, without consideration for the bigger picture. Especially prominent are studies of various body-related illusions. A mixed methods study by Petkova et al. [23] combined body swap illusion with fMRI to explore the experience of different modes of Body Ownership along with their neural correlates. A review of neuroimaging and body-related illusions studies done by Serino et al. [24] explored Bodily Ownership and Self-Location, and a review by Braun et al. [7] looked at studies of SoA and BS, discussing also their clinical and therapeutic relevance. A study by Huang et al. [18] utilized a series

*Both authors contributed equally to this research.

Permission to make digital or hard copies of all or part of this work for personal or classroom use is granted without fee provided that copies are not made or distributed for profit or commercial advantage and that copies bear this notice and the full citation on the first page. Copyrights for third-party components of this work must be honored. For all other uses, contact the owner/author(s).

Information Society 2025, Ljubljana, Slovenia

© 2025 Copyright held by the owner/author(s).

<https://doi.org/https://doi.org/10.70314/is.2025.cogni.8>

of four behavioral experiments with head-mounted displays and tactile stimulation to investigate the relationship between categories: 1PP Location, Self-location, and Sense of Body-Location. In a study by Harduf et al. [15], a comparative experimental design using the moving rubber hand illusion was employed to investigate the categories Body Ownership and SoA in psychosis patients. A book of essays by a group of philosophers and psychologists [12] and a book of essays by Bermudez [6] focus singularly on the experience of the Body, discussing experiential categories such as Spatial Perception, Sense of Bodily Ownership, Space of the Body, Body Awareness, Agency, and Self-Location. Meanwhile, building on previous work, Bandura [5] articulates a comprehensive conceptual model of human agency, elaborating on the evolutionary foundations of agency, its developmental trajectory, and broader implications. He identifies four core components of agency: intentionality, forethought, self-regulation, and self-reflection. Moreover he distinguishes different modes of agency based on who the actor involved is: individual, proxy, or collective. Another key element of his framework is moral agency, defined as the capacity to exercise control over one's behavior, guided by a sense of right and wrong, as well as taking responsibility for one's actions. Similarly, the work of Hitlin and Elder [17] is grounded in conceptual synthesis, drawing on and reviewing existing literature on agency and the Self. Their contribution emphasizes the temporal orientations of agency, highlighting how individuals project the Self across past, present, and future contexts.

Self-aspects reflect in the language we produce [22]. Caporusso et al. [9] specifically looked at how Minimal, Narrative, Agentive, Bodily, and Social Self are expressed. This knowledge can then be used to train models to identify Self-aspects in text [11].

Despite these advances, existing approaches to the Self remain fragmented. While many fields have extensively categorized aspects of the Self, no existing ontology integrates these insights into a unified, computationally operationalizable framework. Current models often incorporate phenomenological concepts but lack precise definitions of the Self's components, overlook their interrelations, and omit explicit hierarchical structures. Consequently, the Self is frequently presented as a fragmented set of loosely connected descriptors. To address this gap, we propose an integrative ontology that synthesizes insights from multiple disciplines into a coherent, computationally operationalizable framework for analyzing Self-related phenomena in text.

3 Research objectives

The aims of this research fit into the broader goal of developing a computational framework able to automatically detect Self-aspects in text instances. To achieve this, a structured and computationally operationalizable ontology of the Self needs to be developed. In building such an ontology, the present study is limited in scope to two aspects—SoA and BS—and is guided by two research objectives (ROs): develop a provisional ontology for Sense of Agency and Bodily Self (**RO1**), and develop a knowledge base featuring text instances illustrating categories featured in the ontology along with commentary on relations, interactions, disambiguation, and sources (**RO2**).

4 Methodology

Ontologies formally and explicitly specify the main concepts relevant to the chosen domain and relations among them [14]. This study employs a descriptive and conceptual approach to

systematically explore and define expressions of various Self-aspects as they manifest in textual data. To manage the inherent complexity of the Self, we decide to focus on two distinct Self-aspects: SoA and BS, as previously identified by Caporusso [8]. This facilitates familiarization with the relevant literature, enables an in-depth analysis of the internal structures of individual aspects, and allows for the iterative development of a research methodology.

Our approach has already been applied to SoA and BS, and we plan to extend it to other Self-aspects to build a comprehensive ontology of the Self. This approach consists of two main phases. First, an extensive, interdisciplinary literature review, drawing from cognitive science, psychology, phenomenology, and related fields. Second, developing a hierarchical ontology along with a knowledge base. We build our knowledge base drawing from different pre-existing studies and ontologies focusing on various aspects of the Self—each from a different perspective or discipline. The final ontology aims to be applied across diverse fields which utilise different terminology [26]. Indeed, one of our goals is to provide a standardized terminology to address Self-aspects across the different fields and communities involved in Self-related research, facilitating data aggregation and interdisciplinarity [16].

4.1 Literature review

We performed an initial survey of academic sources by searching the DiKUL database for the terms Sense of Agency and Bodily Self. Examining the state of the literature helped shape further endeavors in the literature review, such as identifying predominant fields of research interest, additional search terms, and inclusion/exclusion criteria. Once completed, a systematic search operation was performed in the following databases: DiKUL, Google Scholar, Merlot, using the following search terms: *agency, sense of agency, self as agent, aspects of the self, taxonomy of the self, expression of agency, forethought, moral agency, self and body, bodily self, self-location, sense of identification, bodily sensations*. Papers were selected for in-depth review based on their abstract, field, journal, authors, and TOC, if available. Each selected paper was scanned for further sources and search terms. Papers were chosen as building blocks for further work if they included phenomenological accounts of SoA, BS, and any experiences that fell within them—or if they were phenomenologically informed theoretical approaches to the Self. Answers to any questions that arose during the construction of the ontology (detailed in the subsequent section) were sought via further, more targeted search operations.

4.2 Building the ontology

The process of building the ontology and knowledge base involves different steps. First, naming conventions are developed to identify the different classes of our provisional version of the ontology: we refer to BS and SoA as *aspects*; characteristics of each aspect are *elements* (these may be further made up of *sub-elements*); and specific ways in which aspects and elements can be experienced and/or expressed are called *modes*. Following Caporusso [8], we call *attribute aspects* those aspects which can refer to other aspects, such as SoA (e.g., a person can experience agency over their body).

Second, a definition for each aspect is developed by searching for and comparing various definitions in. These are synthesized with lived experience in mind to create the most suitable and accurate definition.

Similarly, elements are identified based on the selected literature, experiential data, and logical analysis. To ensure conceptual clarity, a refinement process is applied. Refinements include decomposing broad categories found in the source material into more specific elements and, conversely, consolidating fragmented descriptions into single, coherent elements. Terminological inconsistencies found in the used sources, such as instances where one name refers to multiple different elements or one element has multiple names, are resolved by selecting the most common term, or the one we deemed most appropriate. As with aspects, each element is given a formal definition. Where necessary, comments are added to distinguish elements from related concepts, note special circumstances, and describe relationships as well as interactions with other concepts.

For each element, a set of sub-elements and modes is identified to cover the full spectrum of its potential manifestations. These include general binary states (e.g., presence or absence), variations in intensity (e.g., weaker or stronger), continua between two experiential poles, and distinct categorical types of experience.

4.3 Building the Knowledge base

A knowledge base includes, other than the proposed ontology or taxonomy, instances for each class.

Most of the examples featured in our knowledge base (see Appendix) come from transcripts of some of the phenomenological interviews conducted by Caporusso as part of her master's thesis [8], which are, except for fragments in her thesis and in present work, currently not publicly available. The interviews explore how the Self is experienced in daily life and dissolution experiences of seven anonymous co-researchers. LO and TK read through the selected interviews, identifying parts detailing different possible manifestations of elements of their respective aspects. After this, modes that were still missing examples were identified and searched again using the document search function.

Examples other than those mentioned above are sourced from Reddit and similar online forums, where users often describe their peculiar experiences in search of others with similar experiences, which made for a plentiful source. Initial search was performed using Google search engine with a combination of terms Reddit/forum and sense of agency/bodily self. After the initial search, new terms—more specific to such websites—are identified and used directly to search the forums. Instances which clearly described experiences featured in the ontology are selected as examples and added to an extended version of the knowledge base in the Appendix. The extended version contains multiple examples for each element and mode, thereby allowing for a more robust grasp of the phenomena.

5 Results

This study culminates in the development of a knowledge base (ontology with examples); this section outlines its structure. As mentioned, each of the elements has sub-elements and/or modes. For a short version of the knowledge base, see the Appendix.

The knowledge base is organized hierarchically into four main classes: aspects, elements, sub-elements, and modes. Aspects represent the broadest top-level domains of inquiry. Each aspect is broken down into its constituent elements, which are the fundamental characteristics or components of that domain. Modes describe the specific ways in which aspects and elements are experienced or expressed by individuals. Where necessary, modes

are grouped into broader categories, called sub-elements. These sub-elements combine binary states (e.g., presence or absence), variations in intensity (e.g., weaker or stronger), and continuums between two poles (e.g., only one part of the body or the whole body), ensuring greater clarity.

Each aspect, element, sub-element, and mode includes a definition and a comment. The comments clarify relations and interactions with other categories, discuss similarities to related concepts, provide disambiguation from potentially confusing categories, and list sources that informed its inclusion and definition.

The modes are enriched with concrete examples sourced from qualitative data, including phenomenological interviews and experiences described on forums such as Reddit. These examples provide vivid, real-world descriptions of experiences in which an element is expressed in a particular mode, grounding the structure in lived experience.

Specifically, SoA is made up of 10 interrelated elements, each contributing uniquely to the identification and characterization of agency within text. These are: Presence of Agency, Forethought, Intentionality, Self-reactiveness, Self-reflectiveness, Moral Agency, Self-efficacy, Agency in relation to who the actor is, Agency in relation to time, and Agency through the state of activation. BS consists of six elements: Bodily Sensations, Awareness, Sense of Identification, Location, Sense of Ownership, and SoA.

6 Discussion

The presented results for SoA and BS show important features of the Self as laid plain in empirical phenomenological data and other text instances, namely its inherent complexity and multifacetedness. From this stems our approach to building the ontology in an iterative fashion, mindful of the many interconnections between its different classes, all while still treating Self-aspects as autonomous conceptual units, to allow us a focused analysis of their internal structures. Given the abstract nature of the Self as a construct, a central challenge of this research was how to render the subject within a structured framework. Although the initial three-level hierarchy proved useful, it occasionally oversimplified complex phenomena and introduced redundancy, thereby revealing certain challenges in the construction process. Specifically, certain identified elements (e.g., Attention, Identification) proved to be fundamental experiences that applied across several aspects without being Self-aspects themselves. The modes for these "trans-aspectual" elements were sometimes context-specific, sometimes universal. It also became clear that certain experiences sometimes appeared as aspects of the Self but could also function as elements of another aspect, or were so strongly interconnected as to seem inseparable. This was evident in the relationship between SoA and the Sense of Ownership. For instance, a loss of the SoA was often accompanied by a loss of the Sense of Ownership, but not invariably, making it incorrect to merge them into a single experience. Such particularities and interactions were documented within the relevant definitions to create a more nuanced framework. Our findings underscore both the interdependence of Self-aspects and the ontological complexity of the Self. Importantly, this research also yields a methodology that can guide future work on additional aspects, advancing efforts toward a comprehensive ontology of the Self. We argue that our approach provides a structured yet flexible framework for interpreting Self-related phenomena in natural language, while remaining open to further development as research progresses and its applications expand.

7 Limitations

Several limitations should be acknowledged at the present stage of this research. The primary limitation lies in the necessary reduction of complex, interdependent phenomena into discrete, well-defined entities. While this reduction is essential for creating a structured and operationalizable framework for studying the Self and Self-related constructs, it inevitably risks oversimplifying these phenomena and overlooking meaningful interconnections among them. Second, the research is currently in an early developmental phase, and the complete ontology, along with its accompanying corpus of examples, is still being constructed. At this stage, only a subset of potential instances has been collected and analyzed, though this is not really a limitation, since we did not plan to have everything annotated yet, but we note it here for transparency. Differences in interpretation among team members highlight the ongoing need to refine annotation guidelines and strengthen collaborative coordination. These issues are not unexpected in exploratory work of this kind and will be systematically addressed in later stages of the project through expanded corpus development, refinement of definitions, and the implementation of inter-annotator agreement procedures. Finally, another limitation is the current restriction of the analysis to English-language texts. This linguistic constraint limits the generalizability of the taxonomy across languages and cultural contexts. Addressing this limitation, future research will seek to expand the framework across multiple languages, including Slovenian. In the future, this ontology will serve as a framework for models including conventional discriminative approaches (such as traditional machine learning models and neural networks), generative large language models, embedding-based retrieval models, and mixture-of-experts architectures [10] to detect Self-aspects in text. Aware that “there is no single ontology-design methodology” and that “the best solution almost always depends on the application that you have in mind and the extensions that you anticipate” [21], we are guided by wanting to build an ontology on which annotation guidelines can be developed (which is the step that will follow the construction of the ontology; see [10]). While currently we are providing a rather comprehensive description of the two Self-aspects analysed, ontology development is an iterative process [21], and the identified elements and modes will get skimmed in future work. This will be done based on the following principles: 1) being relevant for our desired applications; 2) being detectable in text instances. Furthermore, the initial versions of the ontology will be evaluated by discussing with experts and by being employed in applications.

8 Ethical Considerations and Authors’ Notes

All phenomenological interviews used as examples in this study were conducted in the context of a master’s thesis [8] and adhered to established ethical guidelines. Of the participants originally interviewed, seven provided consent for their transcripts to be used in subsequent research; only these interviews were included in the present analysis. Identifying details of these and other text instances in the extended knowledge base were omitted to protect user anonymity.

LO focused on BS, while TK on SoA. JC supervised the work.

Acknowledgements

We acknowledge the financial support from the Slovenian Research Agency for research core funding for the programme Knowledge Technologies (No. P2-0103) and from the projects

CroDeCo (J6-60109) and Shapes of Shame in Slovene Literature (J6-60113). JC is a recipient of the Young Researcher Grant PR-13409.

References

- [1] Yochai Ataria, Yair Dor-Ziderman, and Aviva Berkovich-Ohana. 2015. How does it feel to lack a sense of boundaries? a case study of a long-term mindfulness meditator. *Consciousness and cognition*, 37, 133–147.
- [2] Albert Bandura. 1990. Perceived self-efficacy in the exercise of personal agency. *Journal of applied sport psychology*, 2, 2, 128–163.
- [3] Albert Bandura. 2002. Selective moral disengagement in the exercise of moral agency. *Journal of moral education*, 31, 2, 101–119.
- [4] Albert Bandura. 2006. Toward a psychology of human agency. *Perspectives on psychological science*, 1, 2, 164–180.
- [5] Albert Bandura. 2018. Toward a psychology of human agency: pathways and reflections. *Perspectives on psychological science*, 13, 2, 130–136.
- [6] José Luis Bermúdez. 2018. *The bodily self: Selected essays*. MIT Press.
- [7] Niclas Braun, Stefan Debener, Nadine Spychala, Edith Bongartz, Peter Sörös, Helge HO Müller, and Alexandra Philippsen. 2018. The senses of agency and ownership: a review. *Frontiers in psychology*, 9, 535.
- [8] Jaya Caporusso. 2022. Dissolution experiences and the experience of the self: an empirical phenomenological investigation. *Mei: CogSci Master’s Thesis*. doi:10.25365/thesis.71694.
- [9] Jaya Caporusso, Boshko Koloski, Maša Rebernik, Senja Pollak, and Matthew Purver. 2024. A phenomenologically-inspired computational analysis of self-categories in text. In *Proceedings of the 2024 International Conference on Statistical Analysis of Textual Data (JADT)*. Brussels, Belgium.
- [10] Jaya Caporusso, Matthew Purver, and Senja Pollak. 2025. A computational framework to identify self-aspects in text. In *Proceedings of the 63rd Annual Meeting of the Association for Computational Linguistics (Volume 4: Student Research Workshop)*. Jin Zhao, Mingyang Wang, and Zhu Liu, editors. Association for Computational Linguistics, Vienna, Austria, (July 2025), 725–739. ISBN: 979-8-89176-254-1. doi:10.18653/v1/2025.acl-srw.47.
- [11] Jaya Caporusso, Matthew Purver, and Senja Pollak. Submitted. Identifying social self in text: a machine learning study. In *Proceedings of Information Society 2025*. SiKDD.
- [12] Frederique De Vignemont and Adrian JT Alsmith. 2017. *The subject’s matter: self-consciousness and the body*. MIT Press.
- [13] Shaun Gallagher. 2012. Multiple aspects in the sense of agency. *New ideas in psychology*, 30, 1, 15–31.
- [14] Thomas R Gruber. 1993. A translation approach to portable ontology specifications. *Knowledge acquisition*, 5, 2, 199–220.
- [15] Amir Harduf, Gabriella Panishev, Eiran V Harel, Yonatan Stern, and Roy Salomon. 2023. The bodily self from psychosis to psychedelics. *Scientific Reports*, 13, 1, 21209.
- [16] Janna Hastings, Werner Ceusters, Mark Jensen, Kevin Mulligan, and Barry Smith. 2012. Representing mental functioning: ontologies for mental health and disease.
- [17] Steven Hitlin and Glen H Elder Jr. 2007. Time, self, and the curiously abstract concept of agency. *Sociological theory*, 25, 2, 170–191.
- [18] Hsu-Chia Huang, Yen-Tung Lee, Wen-Yeo Chen, and Caleb Liang. 2017. The sense of Ipp-location contributes to shaping the perceived self-location together with the sense of body-location. *Frontiers in Psychology*, 8, 370.
- [19] Marishka M Mehta, Soojung Na, Xiaosi Gu, James W Murreough, and Laurel S Morris. 2023. Reward-related self-agency is disturbed in depression and anxiety. *PLoS one*, 18, 3, e0282727.
- [20] Ohad Nave, Fynn-Mathis Trautwein, Yochai Ataria, Yair Dor-Ziderman, Yoav Schweitzer, Stephen Purver, and Aviva Berkovich-Ohana. 2021. Self-boundary dissolution in meditation: a phenomenological investigation. *Brain sciences*, 11, 6, 819.
- [21] Natalya F Noy, Deborah L McGuinness, et al. 2001. Ontology development 101: a guide to creating your first ontology. (2001).
- [22] James W Pennebaker, Matthias R Mehl, and Kate G Niederhoffer. 2003. Psychological aspects of natural language use: our words, our selves. *Annual review of psychology*, 54, 1, 547–577.
- [23] Valeria I Petkova, Malin Björnsdotter, Giovanni Gentile, Tomas Jonsson, Tie-Qiang Li, and H Henrik Ehrsson. 2011. From part-to whole-body ownership in the multisensory brain. *Current Biology*, 21, 13, 1118–1122.
- [24] Andrea Serino, Adrian Alsmith, Marcello Costantini, Alisa Mandrigin, Ana Tajadura-Jimenez, and Christophe Lopez. 2013. Bodily ownership and self-location: components of bodily self-consciousness. *Consciousness and cognition*, 22, 4, 1239–1252.
- [25] Mark Siderits, Evan Thompson, and Dan Zahavi. 2013. *Self, no self?: Perspectives from analytical, phenomenological, and Indian traditions*. OUP Oxford.
- [26] Holger Stenzhorn, Stefan Schulz, Martin Boeker, and Barry Smith. 2008. Adapting clinical ontologies in real-world environments. *Journal of universal computer science: J. UCS*, 14, 22, 3767.
- [27] Shogo Tanaka. 2018. What is it like to be disconnected from the body?: a phenomenological account of disembodiment in depersonalization/derealization disorder. *Journal of Consciousness Studies*, 25, 5-6, 239–262.

A The sense of agency

Definition: Agency refers to the sense of having the capacity to act intentionally, make decisions, influence outcomes, reflect and exert ownership over one's actions.

A.1 Presence of agency

A.1.1 Present.

Definition: The presence of agency refers to whether agency and any of its elements can be identified in a text.

Example:

- » I can access them in the space where I am (dl_C [8]).«

A.1.2 Absent.

Definition: The absence of agency refers to a lack of intentionality, control, influence, and self-reflection over one's actions and decisions. It implies that individuals are not actively shaping their behavior but are instead being directed by external forces or internal impulses without conscious regulation.

In textual analysis, the absence of agency is reflected in the lack of any of its other elements.

Example:

- »Well, the action was the exclamation (dl_C [8]).«

A.2 Intentionality

Definition: Intentionality is forming an intention and planning steps to achieve it, even if it does not necessarily result in action [4].

Example:

- »Let me describe to you with concrete thing (dl_B [8]).«

A.3 Forethought

Definition: Forethought refers to setting future plans and goals, and anticipating their outcomes through cognitive representation. It serves as motivation, guidance, and direction [4].

Example:

- »...but for [boyfriend's name] to come back, I knew he would come back...(DE_E [8]).«

A.4 Self-reactivness

Definition: Self-reactivness refers to the execution of one's intentions and plans through deliberate action [4].

Example:

- »...so it's like, here I sit, on this chair, and at the other part of the wall it's kind of near... (dl_F [8]).«

A.5 Self-reflectivess

Definition: Self-reflectiveness refers to the ability to evaluate one's own thoughts, actions, or ideas, and can be observed in conversation when a person reflects on these during or after an interaction [4].

Example:

- »I could navigate small things within the conversation but I couldn't leave the conversation (dlB [8]).«

A.5.1 Self-attribution: Reflective sense of Ownership.

Based on Gallager [13] we can distinguish self-attributions by differentiating sense of agency and sense of ownership as pre-reflective and reflective.

Pre-reflective sense of ownership describes experiencing movement or its sensation without being consciously aware of it. You

can feel your leg moving without reflecting on it or being conscious of it. Because of this, it cannot easily be spotted in text [13].

»Sense of ownership: the pre-reflective experience or sense that I am the subject of the movement (e.g., a kinaesthetic experience of movement) [13].«

Definition: In reflective attribution of ownership, the action is reflected upon and can be attributed to oneself. The movement is consciously recognized as your own. This is much easier to spot in text [13].

Examples:

- »This is my body that is moving [13]).«
- »I don't know, they're coming from me, they couldn't be any other way, like, they're just mine (dl_G [8]).«

This does not mean that the actions performed are actually yours and/or your doing.

A.6 Moral agency

Definition: Moral agency refers to exercising control over one's behavior, guided by a sense of right and wrong, and taking responsibility for those actions [3].

Example:

- »...You're being such an ego!" Then there's the rationalization, because "yeah but I understand shit now, so it's justifiable, I can be a little bit of ego now" (DE_E [8]).«

A.7 Self-efficacy

Definition: Self-efficacy refers to the agency we can exercise based on our perception of ourselves and our belief in our ability to achieve desired outcomes [2].

Example:

- »I can attend to anything... (dlB [8]).«

A.8 Agency in relation to who the actor is

Definition: Agency, in relation to who the actor is, refers to who is exerting the action, whether it is done individually, in collaboration with others, or through an extension such as a tool or system [5].

A.8.1 Individual agency.

Definition: Individual agency refers to describing one's own intentions, actions, decisions and control [5].

Example: Examples of this have already been shown throughout the document when talking about oneself.

A.8.2 Proxy agency.

Definition: As we do not have control over all aspects of our lives, we exert agency by influencing and/or relying on others. We do this through proxy agency [5].

A.8.3 Collective agency.

Definition: Collective agency refers to people working together, pooling knowledge, resources, and effort to achieve a shared or partially shared goal [5].

Example:

- »...we were co-influencing each other (dl_E [8]).«

A.9 Agency in relation to time

Definition: Agency in relation to time refers to orientations directed toward both the present and the future, while implicitly referencing the past and self-reflection, which contribute to identity-based agency [17].

A.9.1 Existential agency.

Hitlin and Elder [17] explain that this is a concept that refers to the capacity for self-directed action, even if it is automatic or unconscious. It is about freedom, being able to make decisions and take action despite external forces and constraints. At this stage, anyone is able to make a decision about their actions, even the powerless.

Existential agency is always present and necessary for others to exist.

A.9.2 Pragmatic agency.

Definition: Pragmatic agency refers to decisions about one's actions based on the present moment or temporal scope. It consists of decisions based on immediate needs rather than future-oriented goals [17].

A.9.3 Identity agency.

Definition: Identity agency refers to actions and decisions being shaped by one's sense of identity. We act in accordance with our roles, and in doing so, we make decisions and take actions that fulfill those roles [17].

Example:

- »That I'm a professor? Yes...That I have responsibility that I'm not doing, now (dl_F [8]).«

A.9.4 Life-course agency.

Definition: Life-course agency refers to the choices people make at different stages of their lives, often shaped by their evolving circumstances, experiences, and future goals [17].

A.10 Agency through the state of activation

Definition: This element refers to the extent to which one has agency over his or her actions. To what extent are they in control [20].

A.10.1 Active.

Definition: The active state of activation refers to an active process through which a subject exerts effort and exercises influence to shape the outcome [20].

Example:

- » I can access them in the space where I am (dl_C [8]).«

A.10.2 Responsive.

Definition: Responsive state of activation refers to a state characterized by reduced activity, involving less effort and limited capacity for manipulation, while still maintaining partial engagement [20].

Example:

- »I am aware of sound, of the student who is presenting his seminar, but I'm aware of this sound as something that disturbs me, a little bit (dl_F [8]).«

A.10.3 Passive.

Definition: A passive state of activation refers to a state in which the subject reports little or no sense of agency. This state is characterized by a lack of manipulation or control, often described in Nave et al. reports as a release or surrender [20].

Example:

- »I couldn't access them, I couldn't do anything about them (dl_C [8]).«

B The bodily self

Definition: The Self-aspect Bodily Self encompasses all experiences pertaining to one's physical body [8].

B.1 Bodily Sensations

Definition: Bodily Sensations [20] refers to the experience of sensations of the body including touch, temperature, interoception, and moving of muscles. Excluded are sight, hearing, smell and taste, but sensations like burning in the eyes, eye muscle strain, blocked nose, burnt tongue and similar do fall into this category.

Sub-elements:

- Strength
- Location
- Appraisal

B.2 Awareness

Definition: The attribute aspect Awareness refers to the experience of being—or not—more or less aware of a certain element or dynamics: whether, and how explicitly, strongly, and/or clearly, that element or dynamics is present in the experiential field [8].

B.2.1 Strength.

Absent

- »I wasn't so aware of my body at that point. (...) It's like, as it moves back, my body... Like I'm not aware of a body anymore. If that makes sense. (DE_G [8]).«

Low

- »For example, my left arm, I know that it was moving, but I don't know what it was doing precisely. So, there are definitely parts of my body I'm not super aware of, at least in terms of what they are doing exactly, like I could give you a rough... idea of the kind of movement, what kind of thing they were doing, if they were static, or if they were moving, that kind of thing, but. (dl_H [8]).«

High

- »I was kind of very aware of my posture my position in space of the distance between us and so in in a weird way I was conscious of things that I usually wouldn't be right so I was very conscious not only on my posture but weirdly I was kind of conscious of my frame like how my shoulders were and so how I'm turning towards him um I was very conscious of how I stood like how my feet were planted on the ground (dl_B [8]).«

B.3 Sense of Identification

Definition: The attribute aspect Sense of identification refers to the experience of identifying—or not—with a certain element in the experiential field.

B.3.1 Strength.

Absent

- »...since I didn't identify with my body anymore...(DE_E [8]).«

Low

High

- »I identify with the body and with the mental representation. However, the intensity of how much I feel one and the other is different. I feel the body a lot more than the mental representation. (DE_C [8]).«

B.4 Location

Definition: Attribute category Location refers to the experience of space, orientation and location of a certain element or dynamic. As an element of the Bodily Self it is the experience of the location of one's body relative to itself (proprioception) as well relative to the world (orientation) [24].

B.4.1 *Unknown.*

- »Yeah it's like the more it pulls back the more of the sense of my body... It's like the more the sense of my body, like being here at a certain point in the world is gone. (DE_G [8]).«

B.4.2 *Vague.*

- »Well it's it's it's part of the space that I occupy there is space that is me and there is space that isn't (dl_B [8]).«

B.4.3 *Exact.*

- »I was facing the mirror later, when the actual situation happened. So, I'm looking at the place, and everything looks nice, and there's the mirror, and [boyfriend's name] is on the other side of the room (DE_E [8]).«

B.5 Sense of Ownership

Definition: Sense of ownership (SoO) refers to the subjective experience of mineness toward one's body [24], sensations, and thoughts [7]. Certain experiences influence SoO, so it may be completely lost, heightened, or anywhere in between [8].

B.5.1 *Absent.*

B.5.2 *Part of the body.*

- »All the parts that are felt in the lower part [of my body], I had ownership over, yeah. Or I felt that it was mine (DE_C [8]).«

B.5.3 *Whole body.*