AN ATTEMPT AT DISSOLUTION OF THE NOTION OF SELF

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DARIA SUGORAKOVA

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_____

Prof. Dr. Meliha Altunışık
Director

I certify that this thesis satisfies all the requirements as a thesis for the degree of Doctor of Philosophy.

_____

Prof. Dr. Ahmet İnam
Head of Department

This is to certify that we have read this thesis and that in our opinion it is fully adequate, in scope and quality, as a thesis for the degree of Doctor of Philosophy.

_____

Assoc. Prof. Dr. Erdinç Sayan
Supervisor

Examining Committee Members

Prof. Dr. David Grünberg	(METU, Phil)	_____
Assoc. Prof. Dr. Erdinç Sayan	(METU, Phil)	_____
Prof. Dr. Ayhan Sol	(METU, Phil)	_____
Assoc. Prof. Dr. İskender Taşdelen	(Anadolu U., Phil)	_____
Assist. Prof. Dr. Hilmi Demir	(Bilkent U., Phil)	_____

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ABSTRACT

AN ATTEMPT AT DISSOLUTION OF THE NOTION OF SELF

Daria Sugorakova

Ph.D., Department of Philosophy

Supervisor: Assoc. Prof. Dr. Erdinç Sayan

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The purpose of this thesis is to provide a plausible approach to the problems of self and personal continuity that arise in various thought experiments and reported extraordinary real-life cases. When we approach the puzzling thought experiments and actual cases in terms of the notion of sense of self, the question of whether a person's self continues becomes moot and inconsequential. The approach based on the sense of self provides clarity, is capable of dissolving the puzzles, while the notion of an enduring self complicates and confuses the matter.

Keywords: Personal Continuity, Thought Experiments, Consciousness, Sense of Self

ÖZ

BENLİK KAVRAMININ BİR ÇÖZÜNDÜRME GİRİŞİMİ

Daria Sugorakova

Doktora, Felsefe Bölümü

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Bu çalışmanın amacı, çeşitli düşünce deneylerinde ve bilinen olağandışı gerçek vakalarda ortaya çıkan benlik ve kişi devamlılığı sorunlarına, akla yatkın bir yaklaşım sunmaktır. Bilmece gibi düşünce deneylerini ve gerçek vakaları, benlik duyusu kavramına dayanarak ele aldığımızda bir kişinin benliğinin devam edip etmediği sorusu gereksiz ve önemsiz hale gelir. Sürekli bir benlik kavramına dayanmak meseleyi karmaşıklaştırırken benlik duyusuna dayanan bir yaklaşım, açıklık sağlamakla beraber kişi devamlılığına ilişkin bilmecelerin çözündürülmesine de olanak verir.

Anahtar Kelimeler: Kişi Devamlılığı, Düşünce Deneyleri, Bilinç, Benlik Duyusu

To My Father

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CHAPTER 1

INTRODUCTION

The purpose of this thesis will be to provide a plausible approach to the problems of self and personal continuity that arise in various thought experiments and reported extraordinary real-life cases. To achieve this goal, I start with a close look into David Hume's theory of personal identity and his dissolutionist stance that this idea of identity is a mere fiction. I address the issue of how memory plays a role in this controversial account. Then I discuss various approaches to the problem of personal identity, such as the psychological account, the physical or biological account and the narrative account. While doing that, I briefly discuss Locke's well known theory of identity, Reid's objection involving the Paradox of the Brave Officer, and introduce the significance of memory in the problem of identity, referring to an experiment

conducted by Erica J. Young *et al.* and published in the beginning of 2014 that demonstrates the potential for memory control.

In Chapter 3, I comprehensively examine the puzzling thought experiments such as Teletransportation, Brain Swap, Fission, Split Brain, etc. and analyze them in terms of the aforementioned traditional approaches to the personal identity problem, exploring how each approach meets the criteria of identity through time and how the concept of continuity plays a role in these thought experiments. While exploring the said thought experiments, I will also address the views of such personal identity theorists as Eric T. Olson, Derek Parfit, Maria Schechtman, Sydney Shoemaker and others.

In Chapter 4, I explore the naturalistic "narrative self" account of Daniel Dennett, who approaches the concepts of consciousness and self from an evolutionary point of view. I briefly introduce Daniel Dennett's account of narrative self and discontinuity of consciousness, examining real-life cases of multiple personality disorder (the case of a DID patient discussed by N. Humphrey and D. Dennett) and callosotomy (the case of a split brain patient, examined by Joseph E. LeDoux, Donald H. Wilson and Michael S. Gazzaniga) and reviewing Dennett's criticism of the conventional notion of self.

In Chapter 5, I first examine Thomas Metzinger's account of "phenomenal self," which provides an interesting alternative to conventional understandings of self and consciousness. Then I briefly

discuss Galen Strawson's attempt to classify the multiplicity of selves and then focus on the synchronic and diachronic senses of self, providing evidence from the experiments conducted by Daniel J. Povinelli. These experiments support another phenomenological model of self proposed by Glenn Carruthers, who, focusing on the "sense of self", establishes a phenomenological model of synchronic self based on cognitive capacities underlying the *sense of boundedness*, the *sense of agency* and the *sense of ownership*. I examine Carruthers' initial four-fold classification of the sense of self and redefine the elements of the sense of self itself as the sense of distinction (based on Dennett's evolutionary approach), the sense of control (as in ability to control actions and thoughts), the sense of appropriation (appropriation of experiences, memories, actions and eventually, responsibility) and the sense of presence in time (having the sense of subjective time). After redefining and explaining these elements of the sense of self with regard to the diachronic aspect of the sense of self, I investigate the gradual emergence of these senses in humans by examining another series of experiments conducted by Daniel J. Povinelli. Then I examine how these senses could be prone to error, discussing the experiment of the "rubber hand illusion", conducted in 1998 by M. Botvinick and J. Cohen and the experiment of out-of-body-experience, so popular with Thomas Metzinger and conducted by V.I. Petkova and H. H. Ehrsson in 2008.

In Chapter 6, I first review the thought experiments discussed in Chapter 3 special reference to the notion of sense of self, particularly

focusing on the thought experiments of Brain Swap, Fission and Split Brain. Then I examine in some detail the reported real-life cases of the cranially conjoined twins Lori and George[1] Schappell and Krista and Tatiana Hogan and review these cases of fusion in terms of the notion of sense of self. After that, I investigate the continuity of the sense of self, examining the significance of episodic memory with relation to the sense of self in the case of the Wernicke-Korsakoff syndrome and the famous case of Henry Molaison. Then I discuss how the sense of self is unified due to the representational unity and unity of consciousness.

Finally, I critically review the inquiry I conducted so far and try to determine whether it will be more beneficial to approach the thought experiments and reported real-life cases in terms of sense of self.

[1] George Schappell's given name was Dori Schappell, but since 2007, she prefers the name "George".

CHAPTER 2

EXPLAIN YOUR SELF!

> "What do you mean by that?" said Caterpillar sternly.
> "Explain yourself!"
> "I can't explain *myself*, I'm afraid, sir," said Alice,
> "Because I'm not myself anymore, you see."[2]

When we read Lewis Carroll's *Alice's Adventures in Wonderland*, we encountered the problem of change in Alice's identity when the size of her body drastically changed. The confusion of identity was caused not only by sudden growth or shrinking of her body, but also by how the surrounding creatures failed to identify Alice and how Alice failed to identify herself both introspectively and in terms of her environment. The problem faced by the character is the problem of personal identity over time. Perhaps, the most eloquent quote establishing the main

[2] Carroll, p. 60.

problem would be the following phrase from chapter 10 of *Alice's Adventures in Wonderland*: "'I could tell you my adventures – beginning from this morning,' said Alice a little timidly: 'but it's no use going back to yesterday, because I was a different person then.'"[3]

Before that, Alice tries to find out who she is by trying to remember things she thinks she knows, like arithmetic and poetry, but fails to multiply four and five correctly and is completely rubbish in reciting a poem she thought she knew by heart. The surrounding environment was so bizarre that Alice was forced to doubt even the very words she used. In philosophical terms, we may say that such criteria as Alice's memory and set of actions and thoughts, her physical and psychological continuity are seriously challenged. Is Alice the same person she was yesterday?

2.1 Hume's self

First, let us examine one of the most controversial approaches to the problem of personal identity, namely, David Hume's account of personal identity. This account is closely related to Hume's account of causation. For Hume, before forming any ideas, we first must have impressions. However, the notion of causal necessity is artificial because it has no

[3] *Ibid*., p. 155.

perceptual grounds and thus, we cannot say, for instance, that "fire causally necessitates heat" in absolute certainty because, lacking the impression of such necessary connection, we cannot know what "to causally necessitate" means; all we know for sure is that the events of fire and heat are constantly conjoined. Such repeated conjunctions create a habit in our minds, producing an artificial notion, namely, a belief in some sort of causal necessity. So, this seeming ''necessary connexion'' between cause and effect is merely a result of the psychological habit we develop by associating ideas, and this commonsensical habit is formed by constant perception of certain events being spatially contiguous and temporally prior to other certain events.

Similarly, just as we commonsensically believe in causal necessity, we also believe that we, as persons, are enduring beings with unity.

> There are some philosophers, who imagine we are every moment intimately conscious of what we call our SELF; that we feel its existence and its continuance in existence; and are certain, beyond the evidence of a demonstration, both of its perfect identity and simplicity.[4]

So just as we fail to perceive any causal necessity, we also fail to perceive an unchanging "self" that persists through time. Since we "are nothing but a bundle or collection of different perceptions, which succeed each other with an inconceivable rapidity, and are in perpetual flux and movement"[5], all we can rely on are these successive perceptions that we

[4] Hume, p. 251.

[5] *Ibid*., p. 252.

have throughout our lives. Through introspection, Alice is aware of seeing an upelkuchen at t_1, eating an upelkuchen at t_2, tasting an upelkuchen at t_3, growing in size at t_4, etc. There isn't any ontological entity that underlies these impressions that we refer to as "self". There is only a succession of perceptions that are separate and distinct, rather than a unified "self" unchanging in time. The question we should ask, according to Hume, is "What then gives us so great a propension to ascribe an identity to these successive perceptions, and to suppose ourselves possest of an invariable and uninterrupted existence thro' the whole course of our lives?"[6]

Hume explains this in a way similar to his explanation of causal relationship as being a commonsensical belief. With causation, we exhibit a belief in causal necessity by means of repeated perceptions of causal conjunctions and construct an idea of inseparable bond between certain events. Similarly, when we introspectively review our successive impressions of our mental activity, we construct an idea of a single unchanging object (just like a picture on a wall), whereas in fact all we perceive is a bundle of related perceptions.

> All these are different, and distinguishable, and separable from each other, and may be separately consider'd, and may exist separately, and have no need of any thing to support their existence. After what manner, therefore, do they belong to self; and how are they connected with it? For my part, when I enter most intimately into what I call myself, I always

[6] *Ibid*., p. 253.

> stumble on some particular perception or other, of heat or cold, light or shade, love or hatred, pain or pleasure. I never can catch myself at any time without a perception, and never can observe any thing but the perception.[7]

What is remarkable about Hume's theory of personal identity is that self, according to his view, is discontinuous:

> When my perceptions are remov'd for any time, as by sound sleep; so long I am sensible of myself, and may truly be said not to exist. And were all my perceptions remov'd by death, and cou'd I neither think, nor feel, nor see, nor love, nor hate after the dissolution of my body, I shou'd be entirely annihilated, nor do I conceive what is farther requisite to make a perfect non-entity.[8]

It is clear that according to Hume, we as "selves" cease to exist when we fall asleep, do not perceive anything (are in vegetative state perhaps) or die. This interrupted or rather intermittent existence is well supported by his notion of identity as fiction.

Our memories of course are crucial for this fiction of identity, since "what is the memory but a faculty by which we raise up the images of past perceptions?"[9] Without memory, we could not have placed our resembling impressions into a sequence thus through imagination, constructing an easier picture of our pasts, producing a fiction of continuing self.

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[7] *Ibid*., p. 252.

[8] *Ibid*.

[9] *Ibid*., p. 260.

> As memory alone acquaints with the continuance and the extent of this succession of perceptions, 'tis to be consider'd, upon that account chiefly, as the source of personal identity. Had we no memory, we never shou'd have any notion of causation, nor consequently of that chain of causes and effects, which constitute our self or person.[10]

Can anyone remember what his or her mental activity was on December 21st three years ago? Hardly. But our mental activities commonsensically execute relationships of resemblance and causation and by these means,

> we can extend the same chain of causes and consequently the identity of our persons beyond our memory, and can comprehend times, and circumstances, and actions, which we have entirely forgot, but suppose in general to have existed.[11]

So, even if we do not remember what we were thinking or doing on December 21st three years ago, we still believe that we are the same person we were on that particular day that we don't have any memory of. By extending our identity beyond our memory, we reaffirm that personal identity is a fiction. Our idea of a unitary unchanging self is merely a construct most of the time simply rediscovered by our memory.

When one reads the following passage from *Treatise*, it is clear that the Humean account may stumble upon a form of circularity objection:

> When *I* enter most intimately into what *I* call *myself*, *I* always stumble on some particular perception or other…. *I* never

[10] *Ibid*., pp. 261-262.

[11] *Ibid*., p. 262.

> can catch *myself* at any time without a perception, and never can observe any thing but the perception.[12]

When our mind introspectively reviews the succession of our perceptions, it is misled to a commonsensical belief in "self", which is to say that a mind is tricked to falsely believe in its own existence. Is it absurd?

2.2 Alice's selves

Now, let's consider what it means to be the same person. In everyday life we usually refer to human beings as persons, sometimes using such expressions as "She is not the same person anymore", inadvertently confusing the concepts of person and personality. In other times, we refer to a person as a human being with a set of actions such as thoughts, experiences and other characteristics and attribute a certain degree of accountability for moral behavior. There are several criteria that represent different approaches to the problem of personal identity.

According to the psychology-based approach, the psychological continuity (memories, dreams, beliefs, etc.), self-reflection and self-consciousness are indispensable parts of being the same person over time. The history of the psychological approach to the personal identity goes back to Locke's understanding of personal identity. Locke

[12] *Ibid*., p. 252, my emphasis.

suggested that being a person means being "… a thinking, intelligent being, that has reason and reflection, and can consider itself as itself, the same thinking thing, in different times and places…"[13] In *Essay Concerning Human Understanding* Locke stated that:

> If the same Socrates waking and sleeping do not partake of the same consciousness, Socrates waking and sleeping is not the same person. And to punish Socrates waking for what sleeping Socrates thought, and waking Socrates was never conscious of, would be no more of right, than to punish one twin for what his brother-twin did.[14]

Since according to Locke, being a person means being a consciousness, "… a thinking, intelligent being, that has reason and reflection, and can consider itself as itself, the same thinking thing, in different times and places…"[15], one could say that Locke is right, distinguishing between waking and sleeping Socrates, since sleeping state does not seem to be conscious state. However, dreaming is another matter. Although one cannot be blamed for dreaming about killing someone, just like we cannot control our dreams, yet dream consciousness is consciousness nevertheless. We of course remember some of the dreams we have during REM sleep and the nightmares of the deep sleep, so what Locke's waking Socrates was never conscious of, we now know that we are. As long as Alice is the same intelligent thinking thing, she is the same

[13] Locke, §9.

[14] *Ibid*., § 19.

[15] *Ibid*., §9.

person she was yesterday. But if her consciousness is interrupted, it seems reasonable to doubt whether Alice is the same person anymore. Reid's objection to Locke's account is reflected in the Paradox of the Brave Officer, where Reid challenged the principle of transitivity using an example of fading memory. Psychological approach answers to this objection by introducing the chain of connectedness between memories. So although the army-general-self does not directly remember the apple-thief-self, since the brave-officer-self remembers the apple-thief-self and the army-general-self remembers the brave-officer-self, there is a chain of memory between these selves, thus the psychological continuity between those selves is established. Not only connections between past and present as memories and experiences, but also such connections between present and future as desires, beliefs and intentions can provide psychological continuity and thus personal identity over time. These views constitute the psychological approach that defines personal identity as follows:

> X at t_1 is the same person as Y at t_2 if and only if X is uniquely psychologically continuous with Y, where psychological continuity consists in overlapping chains of strong psychological connectedness, itself consisting in significant numbers of direct psychological connections like memories, intentions, beliefs/goals/desires, and similarity of character.[16]

Of course, memory may not be always reliable. First, one should distinguish between personal memory and factual memory. Personal

[16] Parfit, p. 207.

memory of an event requires person's presence during the event in question without a third person's reminder subsequent to the event; otherwise such memory must be considered only as a factual memory of the event in question.

2.3 Memory

Our memory can be contaminated by various things, such as testimonies of third persons and inferences. Most of times, we reconstruct the events by referring to mental images, feelings, opinions, intentions and reminders. We reshape the events in our minds in accordance with what we think happened, not according to what actually happened. Nevertheless, psychological continuity and connectedness seem to be preserved even with false memories, because it is not the facts of the event that affect our personal identity, but the strong connections we have between the memory of our past and present selves.

Recent developments in neuroscience and neuropsychiatry show a potential for selective erasing of undesirable memories. Erica J. Young *et al.* conducted series of experiments with rats and mice, where animals were conditioned to associate methamphetamine pleasure with certain

environment. Then, scientists administered intra-BLC infusion of LatA[17], causing direct actin depolymerization, which resulted in immediate disruption of memory associated with methamphetamine. This fact was confirmed by additional administration of Blebbistatin, "a specific inhibitor of nonmuscle myosin II motor activity".[18] Erica J. Young *et al.* demonstrated in their experiments that memories associated with SUDs (substance use disorders) could be successfully and persistently erased without disrupting long term memory, providing an insight for the mechanisms of memory formation and memory storage.

> This … possibility is exciting, because it has the potential to provide a means for selective targeting of specific memories, while leaving others intact. Indeed, our data support the latter possibility, perhaps uncovering a strategy to selectively target a class of memories that are associated with psychiatric disorders.[19]

Imagine that a memory of a certain traumatic experience can be selectively erased without damaging the rest of person's memory. If the point of origin of a schizophrenic's delusions is erased, would that affect her as a whole? Would it "cure" her? The future development and implementations of selective memory erasing methods will show that of

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[17] Young, E.J e al., p. 97. BLC refers to the basolateral amygdala complex, associated with fear conditioning and memory formation; LatA refers to Latrunculin A, an inhibitor isolated from the Red Sea sponge *Negombata magnifica.*

[18] *Ibid*., p. 100. Nonmuscle myosin II is a highly specific molecular motor that Young E.J. et al. demonstrated to be a driver of plasticity and memory-promoting spine actin polymerization.

[19] *Ibid*., p. 102.

course, but let's consider a regular, "normal" person, such as Alice, who has memories of growing up, living in England with her family, visiting Wonderland, coming back and moving on, occasionally struggling with a number of people in her life, trying to convince them that she, in fact, had been to Wonderland. If we erase her memories of Wonderland selectively and completely, without a trace, would Alice remain Alice? Without that particular chunk of memory, which takes part in making her who she is, would one still be able to say that she is Alice, "The Alice"? More importantly, will *she*? Having partially lost a memory by the process of selective erasing, a person might not even think twice when asked if she is really still "her" since her long term memory is intact.

CHAPTER 3

THOUGHT EXPERIMENTS:

PSYCHOLOGICAL APPROACH VS BIOLOGICAL APPROACH AND OBJECTIONS

Memories aside, let's re-examine Parfit's psychological approach with regard to the overlapping chains of strong psychological connectedness. Suppose we operate on Alice's brain so that one fourth of her memories, beliefs and other psychological connections are replaced by Margaret's memories, beliefs and other psychological connections. After such operation most of Alice's psychological connectedness is preserved and according to Parfit, Alice would survive. Suppose two days later we operate on Alice's brain again so that the second one fourth of her memories, beliefs and other psychological connections are replaced by Margaret's corresponding memories, beliefs and other psychological connections. Two days later we conduct another operation and two days after that we finally replace the entirety of Alice's memories, beliefs and

other psychological connections with those of Margaret. The resulting person will be indeed, Margaret, not Alice. However, according to Parfit, since there are overlapping chains of strong psychological connectedness, Margaret must be psychologically continuous with Alice, which is absurd.

3.1 The Ship of Theseus

The replacement of "parts" is known as "The Ship of Theseus" paradox and there are many variants of it in the history of philosophy. It is said to have originated from an ancient Greek legend about the ship of Theseus, the old parts of which were in time replaced with new ones, raising the question whether the ship remained the same. Thomas Hobbes extended the puzzle by proposing a scenario where the old planks were preserved and reassembled into a ship. The question would be which of the ships was the original ship of Theseus? As for a personal example, years ago I went to a VW Beetle Festival in Istanbul, where a man was awarded with a prize for the most "original" VW Beetle in *restoration* category. Let's say there were three VW Beetles – the Original Beetle ($Beetle^{O}$) the Restored Beetle ($Beetle^{Rs}$) and, to follow Hobbes' puzzle, the Reassembled Beetle ($Beetle^{Ra}$). $Beetle^{Rs}$ can be said to be loosely identical with $Beetle^{O}$, and $Beetle^{Ra}$ can be said to be strictly identical to $Beetle^{O}$, or better yet, it can be said that in such case, the identity is indeterminate. Perhaps the jury's

decision that Beetle^{Rs} was the most "original" was plausible because the owner simply did not reassembly a beetle from the Beetle$^{O'}$s replaced parts.

The paradox of the Ship of Theseus is an interesting puzzle with regard to personal identity and continuity. It is also related to another approach to the problem of personal identity – the biological point of view, the so called "biological" criterion. Basically, it states that the essence of being a person is constituted not psychologically, but biologically, since such psychological attributes of a person as self-reflection and self-consciousness only appear after a certain age and require particular level of development in the psychology of a person. One of Olson's objections to the psychological criterion is that since cerebrum starts to function when the fetus is roughly 5 months old, so in accordance with the psychological approach, when a person is just a 5-month old fetus, that person basically does not exist due to absence of a psychological capacity. Another objection related to the thought experiment referred to as the Brain Transplant Case, is as follows:

> If we transfer your mental contents to another brain, we can also transfer them to two brains…. If any future person who has your mental contents or capacities is you, then we have a problem, for there is only one of you, and one thing cannot be identical with two things.[20]

[20] Olson, p. 16.

3.2 Brain Transplant and Brain Swap

More advanced versions of such thought experiments are the thought experiments that we can call Silicon Brain Replacement, Brain Swap and *Fission*, which will be discussed in detail later. The Silicon Brain Replacement thought experiment basically suggests that Alice's brain is replaced by a silicon brain. Supposedly such artificial brain would contain all data that "psychologically" constitutes Alice: her memories, beliefs, intentions, etc. According to the psychological approach, Alice's existence over time necessarily and sufficiently depends on the continuity of her mental states. However, the biological approach states that a person survives over time only if that person's biological continuity is provided. We can introduce a definition similar to the definition formed in terms of psychological approach:

X at t_1 is the same person as Y at t_2 if and only if the biological organism of Y is continuous with the biological organism of X.

When this definition is applied to the case of Silicon Brain Replacement, the following picture occurs: since silicon brain is not a biological continuation of Alice, the person with silicon brain is *not Alice*. Even if all of "silicon brain" Alice's mental states are identical to "biological brain" Alice, the fact that part of the body in question is replaced by a non-biological material refutes the idea of biological continuity of Alice. Another example of a problem with the Silicon Brain Replacement thought experiment in terms of both biological and psychological continuity would be that as far as we know, such mental state as pain is

possible only in carbon based organisms. Thus in theory, it may not be possible for a silicon brain to produce such mental state, which would mean that *not all* of mental states of Y at t_2 are identical with mental states of X at t_1.

If we apply the definition to the case of Brain Transplant, things get weirdly counter-intuitive. For instance, if Alice is physically in a vegetative state and her brain and consequently all of Alice's psychological capacities and mental states are transplanted to another body, the biological approach would consider that as long as Alice's no-brain body is kept alive, real Alice would survive in that body and the person who has been transplanted Alice's brain will be just a copy of real Alice. And when Alice's body is unplugged, all that remains is this faint copy with memories of Alice's experiences, desires and beliefs.

Or so it seems. Sydney Shoemaker analyzes a Brain Swap thought experiment, where two people, Robinson and Brown, have their brains "swapped", after which a person with Brown's body (and Robinson's brain) dies. For convenience, the remaining person is called Brownson. We can argue as much as we want about the survival of Brown in terms of biological criterion, but the simple truth is, only Brown can tell us whether he survived or not. The first person perspective here is surprisingly definitive, according to Shoemaker:

> It seems to me that I can imagine being in the position of the Brownson of my example. I can imagine waking up after an operation and being surprised by the appearance of my body

> (e. g., as seen in a mirror). I can imagine seeing some other body, which I recognize (or seem to recognize) as my body of the previous day, and being told that the brain from that body had been placed in the skull of my present one.[21]

So, Brown(son) would be able to come to terms with his transformation, because for instance, his memories are intact in this thought experiment, which might serve as a proof that cognitive characteristics, such as memories, beliefs, intentions, etc. are essential as personal identity criteria. Whereas if one defended bodily (biological) criterion, one would have to agree that if Brown killed someone before his brain was put into Robinson's body, he would still wake up with memories of committing a murder, but would be able to avoid punishment since the biological criterion of being the same person is not met. So while trying to refute the psychological approach, the biological approach is entangled with such counter-intuitive consequences.

3.3 Teletransportation

The thought experiment of *Teletransportation* can be summarized as following. Suppose that Alice enters T-T machine, her entire body, brain (consequently, all possible mental functions, memories, emotions etc.) are scanned, then scattered into atoms. These atoms are teletransported to and reassembled on the other side, presumably in some distant galaxy

[21] Shoemaker, p. 32.

(otherwise, why teleport in the first place?). The question begs for itself: is the newly-reassembled (resulting) person numerically identical to the original person? Since the very same atoms were used, we can say that the resulting person is positively identical to the original. And even if the atoms were different (but qualitatively identical to the original atoms, i.e. carbon for carbon, and not silicon for carbon), the resulting Alice would have been continuous with the original Alice. Of course one might argue that if reassemblance is performed with a different set of atoms, the resulting person would be only a replica of the original.

Another approach to personal identity is the narrative approach, which deals with the problem of numerical identity. This approach raises the questions of re-identification and self-knowledge.[22] The infamous question asked by many, the question of "Who am I?", basically underlines our need to define the criteria for re-identifying X at t_1 as X at t_2. Furthermore, we need to identify the criteria which define when actions, desires and experiences are attributable to a particular person.

> Once I, Chuang Tzu, dreamed I was a butterfly and was happy as a butterfly. I was conscious that I was quite pleased with myself, but I did not know that I was Tzu. Suddenly I awoke, and there was I, visibly Tzu. I do not know whether it was Tzu dreaming that he was a butterfly or the butterfly dreaming that he was Tzu...[23]

[22] Schechtman, p. 71.

[23] Chuang Tzu was a Chinese philosopher, one of the founders of Taoism, 369-286 BC.

Is Chuang Tzu, Chuang Tzu, or is he a butterfly? Most of re-identification is based on memory. However, the memory criterion is challenged by the circularity objection. It is apparent that we can *properly* remember only our own experiences. Basically, Alice's memory of her experiences enables us to say that Alice at t_2 is the same person as Alice at t_1. But some memories can be false. For instance, a crazy person's memory of invading Russia does not make that person Napoleon. Therefore, in order to distinguish between genuine memory and delusional memory, we need some kind of identity criterion in the first place, to be able to say that a certain memory belongs to a certain person and it is a real one.

Parfit provides an answer to the circularity objection by means of the notion of the quasi-memory. To clarify, genuine memory is the memory of an experience that a person actually had and rightly takes it to be her own. Delusional memory is the memory of an experience that a person did not actually have and falsely takes it to be her own. Finally, quasi-memory is the memory of an experience, which is not attributed to anyone in particular. By use of quasi-memory, Parfit tries to escape the circularity through a distinction between genuine and delusional memories without attribution of identity.

> Because we do not have quasi-memories of other people's past experiences, our apparent memories do not merely come to us in the first-person mode. They come with a belief that, unless they are delusions, they are about our own experiences. But in the case of experience-memories, this is a

> separable belief. If like Jane we had quasi-memories of other people's past experiences, these apparent memories would cease to be automatically combined with this belief.[24]

Re-identification of one's self and appropriation of one's actions can be achieved if these actions are integrated into the person's life story comprised by her *own* memories. One could say that a person achieves an active psychological continuity, where all of one's experiences, actions, intentions, desires and beliefs are interwoven into a larger psyche of a person. Such larger psyche enables a person to appropriate her memories of her experiences as her own, re-identifying herself. Such appropriation of experiences also provides accountability for one's actions. Moral responsibility is integrated into the web of psyche.

Of course, the problem with the narrative identity is the narrative itself. For one, it may not provide accurate picture of the events of one's life story:

> The madman with Napoleonic delusions takes himself to have led the troops at Waterloo, but this does not count toward making that his action. And my refusal to accept my competitive impulses as my own does not have the consequence that I am not a competitive person.[25]

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[24] Parfit, p. 222.

[25] Schechtman, p. 90.

3.4 Fission

Another problem with the narrative identity, as well as with the psychological and the biological approaches arises in the thought experiment called *Fission*. The thought experiment presupposes that Alice and her two triplet sisters have a terrible accident, where Alice's body is fatally injured, but fortunately her functionally equivalent brain hemispheres survive, while the brains of her sisters are irreparably injured, however, their bodies are in good condition. Each of Alice's hemispheres is transplanted to the bodies of her sisters.

The apparent result is that two persons come into existence. When they wake up, both of these resulting persons identify themselves as Alice, having Alice's memories, intentions, beliefs and desires. Both women are psychologically continuous with Alice and being triplets, look exactly like Alice. Can one thing be two? Are there two (or even three, if we count the original Alice, too) Alices? Let's call the resulting persons Alice^{L} and Alice^{R}. Both Alice^{L} and Alice^{R} would claim that she is The Alice. But is that so? What actually happens to The Alice? Is she divided into two different persons? Or, perhaps she consisted of two persons that became separate through *Fission*, or she survives in both bodies, and we have a case of amoeba-like division? Or, even worse, she is in one of the bodies, while there is a completely different person in the other? If so, then which is which? Basically, who and where is The Alice? It is plausible to say that the moment Alice's brain is removed from her

body, she ceases to exist. The only persons that exist from now on would be Alice^{L} and Alice^{R}. However, both persons would claim to be The Alice, and following the psychological approach, we would have no criteria to distinguish between them. However, Alice^{L} and Alice^{R} are not identical with each other. Yet if either Alice^{L} or Alice^{R} died during the surgery, the resulting person would be The Alice. Hence, the principle of transitivity of identity is violated.

Parfit, however, has different interpretation of this thought experiment. Since The Alice could not have survived as both Alice^{L} and Alice^{R}, the identity relation between Alice and the others does not hold; hence, The Alice simply does not survive the transplantation. Of course it is not like The Alice dies in the traditional sense of the word: her personality, memories, thoughts, desires, intentions and beliefs continue in both Alice^{L} and Alice^{R}. So *in a way*, Alice will have survived. So according to Parfit, the identity relation is not what really matters in survival of the person, as long as the psychological continuity is preserved. In fact, what is merely significant in the problem of personal identity is the *survival* itself. So the question here seems to be not whether Alice is identical Alice^{L} or Alice^{R}, but whether Alice survives at all.

Psychological continuity seems to be essential in the relation between Alice at t_1 and Alice at t_2. Suppose that Alice had an accident, hit her head and woke up without any memories whatsoever. By asking

"Who am I", Alice addresses one of the most important issues in the problem of personal identity: the question of self-identification. In such case of amnesia, the psychological continuity is absent, so even if Alice remembers anything, how can she appropriate any of those memories to *herself*? Is person's memory of doing something caused by the fact that she has actually done it, or could it be just an illusion of a memory inferred from data at hand, such a testimony of third persons? Does remembering travelling to Wonderland actually mean that Alice has been to Wonderland? Or, if Alice is told that she has been to Wonderland, but does not remember doing so, or cannot internalize such memory, does this mean that she might not be the one who travelled to Wonderland?

CHAPTER 4

THE SELF: ALL OR NOTHING?

4.1 How many selves?

Gallagher indicates that "even if all of the unessential features of self are stripped away, we still have an intuition that there is a basic, immediate, or primitive 'something' that we are willing to call a self".[26] Imagine yourself lying in bed at night, fully aware of your self and the world around you. You scratch your arm, think of the events of the day, try to plan the day ahead, feel the night breeze from the window and hear the distant sounds of the street. You slowly fall asleep, relaxing your muscles and deepening your breath. The sounds fade; your thoughts slow down and become vague and less apparent. You almost disappear into the oblivion. Suddenly you fall. At that very moment you are as awake and aware as you ever can be – you heart pounds in your chest,

[26] Gallagher, p. 15.

your eyes are widened, you breathe fast and your entire body is exhilarated with realization that you were about to fall, but didn't! The "self" that did not fall at that very moment is that "proper" self. Or, to be more precise, it is the sense of self, due to which you realize that you haven't fallen and in fact could not have fallen, the sense that it is you, and you are still in bed and will probably wake up tomorrow in the same bed.

Can we imagine a conscious state without some sort of a self that would be the subject of the conscious state in question? It seems plausible to say that without self, consciousness does not exist. With a number of selves, could a number of consciousnesses arise? Humphrey and Dennett describe a "type" Dissociative Identity Disorder[27] case, asking "is it possible for a single human being to have several different selves?"[28] The answer to this question is not easy. In a typical DID case, the patient exhibits a "dominant" self and a number of "alternate" selves, each of whom display different behavior, have different choices in fashion, manner of speech and even gender:

> The life experience of each alter is formed primarily by the episodes when she or he is in control. Over time, and many

[27] Dissociative Identity Disorder was previously known as Multiple Personality Disorder. In their article, Humphrey and Dennett (1989) use the term "multiple personality disorder".

[28] Humphrey and Dennett, "Speaking for our selves: an assessment of multiple personality disorder", *Raritan*, 9 (1), pp. 68-98 (original), pp. 1-24 (PDF). I could not obtain the original article, so hereinafter I refer to the pages of PDF article retrieved from http://www.humphrey.org.uk/papers/1989MPD.pdf, p. 6.

> episodes, this experience is aggregated into a discordant view of who he or she is – and hence a separate sense of self.[29]

Some cases of DID exhibit such drastic differences between selves as variations in drug tolerance, allergic reactions, alcohol and sedative responses.

The "type" case described by Humphrey and Dennett is the case of a young woman named Mary, who "has been suffering from depression, confusional states and lapses of memory."[30] While talking about herself, she sometimes refers to herself in third person or in plural first person. During hypnosis, Doctor R discovers her alternate personalities: "each has a story to tell about the times when she is "out in front"; and each has her own set of special memories".[31] After a number of sessions with a number of alternates it becomes obvious that Mary has been repeatedly abused by her stepfather as a child. Doctor R suspects that in order to overcome the abuse, Mary "split" into a number of selves, each with its own role in Mary's life:

> When Mary lost her temper with her mother, Hatey could chip in to do the screaming. When Mary was kissed by a boy in the playground, Sally could kiss him back. Everyone could

[29] *Ibid*., p. 2.

[30] *Ibid*., p. 3.

[31] *Ibid*., p. 4. This difference in episodic memories is illustrated in Figure 4.1.

do what they were "good at" – and Mary's own life was made that much simpler.[32]

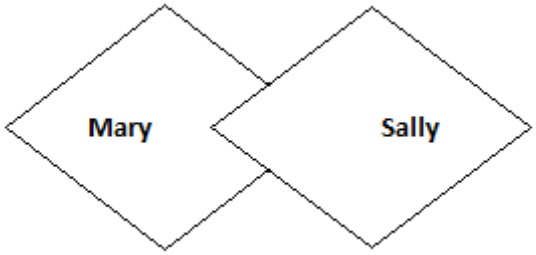

Figure 4.1 Episodic memory in DID: simple illustration how Sally's episodic memory may be different from Mary's episodic memory.

In order to provide some sort of an answer to the question about the possibility of several selves, the authors distinguish between two views regarding "selves": "proper self" and "fictive self". The first type is what an ordinary Alice and many others takes to be a "self", the thinker of Alice's thoughts and the believer of her beliefs. Religious folk would call it a soul. The second view, however, is what you and I and numerous psychoanalysts and philosophers have in mind.

The selves according to such approach are not something real; they are fictional entities that merely have explanatory power. Humphrey and Dennett refer to such "self" as the "centre of narrative gravity".[33] Of course, one could say that what philosophers see as "fictive self" is merely a more complicated philosophical/scientific view of "proper self", depending on the point of view and area of study: "the

[32] *Ibid*., p. 5.

[33] *Ibid*., p. 7.

plain man's proper-self corresponds to the intrinsic reality, while the philosopher's fictive-selves correspond to people's (necessarily inadequate) attempts to grasp that intrinsic reality."[34] However, according to Humphrey and Dennett, in reality, there is no "proper self" at all. In fact, authors insist that "a human being does not start out as a single or a multiple – she starts out without any Head of Mind at all."[35] Number of "fictive" selves then is created under the social and environmental influences, and a self that is best fit for the survival of the individual is selected as the major self. In Mary's case, the fictive selves competed with each other, resulting in an unstable individual. So, it is evident that there are cases where so called unified self is split into number of sub-selves, which complicates the issue even further.

Daniel Dennett rejects such traditional views of self as it being a soul or a material substance. He defines self as "center of narrative gravity"[36], stating that such view of self's existence is more realistic and actually quite advantageous:

> If you think of yourself as a center of narrative gravity … your existence depends on the persistence of that narrative (rather like the Thousand and One Arabian Nights, but all a single tale), which could theoretically survive indefinitely many switches of medium, be teleported as readily (in principle) as the evening news, and stored indefinitely as

[34] *Ibid*.

[35] *Ibid*., p. 10.

[36] Dennett, p. 427.

> sheer information…. (or, to put it in its more usual provocative form, if what you are is the program that runs on your brain's computer), then you could in principle survive the death of your body as intact as a program can survive the destruction of the computer on which it was created and first run.[37]

Dennett's "heterophenomenologcal method"[38] presents this center of narrative gravity in order to provide simplification and increase explanatory power, just as physicists use the center of gravity in physical objects to provide better understanding of physical objects. The narrative self hereby is an abstraction, it does not refer to any substantiality or ontological entity.

4.2 Fractured self

The idea of "self" runs deep in us. However, if you cracked my head open, you would see that in reality, "there is nobody home". So what is "self" or "person", the "me" who thinks, feels and dreams? Evolutionary wise, I am inclined to distinguish between my self, my body, my brain, etc. and of course, everything else. I am inclined to think of my self as a separate entity that endures through time.

> "Me against the world" — this distinction between everything on the inside of a closed boundary and

[37] *Ibid*., p. 430.

[38] *Ibid*., pp. 70-98.

> everything in the external world — is at the heart of all biological processes, not just ingestion and excretion, respiration and transpiration. Consider, for instance, the immune system, with its millions of different antibodies arrayed in defense of the body against millions of different alien intruders. This army must solve the fundamental problem of recognition: telling one's self (and one's friends) from everything else.[39]

Daniel Dennett explores the concept of self by first giving an account of how "selves" have evolved in the first place. According to Dennett, we distinguish between what is "ours" and what is not, on deeply biological level. For instance he gives a peculiar example of saliva, which clearly shows how we appropriate certain things:

> would you please swallow the saliva in your mouth right now? This act does not fill you with revulsion. But suppose I had asked you to get a clean drinking glass and spit into the glass and then swallow the saliva from the glass. Disgusting! But why? It seems to have to do with our perception that once something is outside of our bodies it is not longer quite part of us anymore — it becomes alien and suspicious — it has renounced its citizenship and becomes something to be rejected.[40]

The evolutionary boundaries organisms developed by means of natural selection enable organisms to differentiate between themselves and the rest of the world. This is a form of a self, but it is not something concrete. Dennett gives an example, comparing humans to a termite colony:

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[39] *Ibid*., p. 174.

[40] *Ibid*., p. 414.

> So wonderful is the organization of a termite colony that it seemed to some observers that each termite colony had to have a soul (Marais, 1937). We now understand that its organization is simply the result of a million semi-independent little agents, each itself an automaton, doing its thing. So wonderful is the organization of a human self that to many observers it has seemed that each human being had a soul, too: a benevolent Dictator ruling from Headquarters.[41]

But that is an illusion. A termite colony is successful due to billions of individual termites with specific tasks, interacting with each other in a decentralized way. Human mind operates due to billions of individual neurons and neural pathways:

> But the strangest and most wonderful constructions in the whole animal world are the amazing, intricate constructions made by the primate, *Homo sapiens*. Each normal individual of this species makes a self. Out of its brain it spins a web of words and deeds, and, like the other creatures, it doesn't have to know what it's doing; it just does it.[42]

According to Dennett, Alice would be able to have a clearer understanding of what "This is my body" means if Alice could have asked such question as "As opposed to what?" If another person, say, Margaret, could argue that the body in question is not Alice's but Margaret's, which would mean that the body in question is occupied by both Alice and Margaret, perhaps "we could see better what a single self really is."[43]

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[41] *Ibid*., p. 416.

[42] *Ibid*.

[43] *Ibid*., p. 419.

Dennett gives examples of DID and the Chaplin twins to demonstrate that our "all or nothing" notion of self could be wrong. The case of Greta and Freda Chaplin, identical twins with seemingly singular self seems interesting enough to mention. Dennett says it was published in Time April 6, 1981, however, an earlier publication about the case was "British Twins Too Close for Trucker's Comfort", *The Baltimore Sun*, December 9, 1980. The twins said that they feel like one person, not two people. Although after watching a number of documentaries about the Chaplin twins, I gained an impression that their case is more of a form of psychological defense that the sisters developed during their childhood possibly against certain forms of abuse. They say they do not remember anything about the period of age 5 to 10. They began to synchronize their speech in their late 30s and as adults, seem to have identical mental states most of the time. But it is of course unclear whether it is just a mere repetition of one another's speech, manner of movement or familiarity perfected over the years.

I discussed a "type" DID case as described by Humphrey and Dennett, earlier. It seems there that the self does not have to be integral and one at all times. Selves could be fractured, incomplete.

> One of the most striking features of consciousness is its discontinuity — as revealed in the blind spot, and saccadic gaps, to take the simplest examples. The discontinuity of

> consciousness is striking because of the apparent continuity of consciousness.[44]

Further exploring these cases and providing richer insight of the thought experiment known as *Split Brain*, Dennett elaborately explains the futility of the said thought experiment.

To be fair, Split Brain is not exactly a thought experiment. Since 1960's, many epileptics were relieved by means of *commissurotomy*, where the direct connection of the hemispheres, *corpus callosum*, is severed. The thought experiment part is the speculation whether two distinct selves occur after such operation. The connection between the hemispheres is preserved indirectly, but the main idea of the thought experiment is that the lateralization of brain functions becomes so evident that two radically distinct persons emerge.

Joseph E. LeDoux, Donald H. Wilson and Michael S. Gazzaniga published a report regarding the psychological evaluation regarding severed hemispheres of a patient operated on in 1976. The patient underwent different psychological tests involving visual stimuli by word presentation:

> The final test involved a series of questions directed to the right hemisphere. These questions were aimed at further evaluating whether this patient's mute half-brain possesses what we regard as some of the essential qualities of human

[44] *Ibid*., p. 356.

> consciousness, including a sense of self, a sense of the future, goals and aspirations, feelings, and personal preferences.[45]

The results were rather interesting. The "self" of the right hemisphere not only had a plan for the future, but also had a plan *different* from the plan of the "self" of the left hemisphere. Furthermore, during the first test, involving attributing subjective values to various words such as "car", "money", "Sunday" etc., "the right hemisphere [seemed to be] in a 'bad mood' relative to the left."[46] Two distinct selves were observed in the patient, demonstrating that each hemisphere was capable of subjective assessment, future planning and prioritizing.

Dennett rejects the romanticism of Split Brain thought experiment, stating that empirical findings are not sufficient to indicate emergence of fully fledged multiple selves. Just like in 1974 Nagel asked "What is it like to be a bat?"[47], Dennett asks: "What is it like to be the right hemisphere self in a split-brain patient?"[48] The answer he gives is rather disappointing. The self of the right hemisphere is mute, alienated to the right side of its body with exception of the right nostril:

> It could hardly be a challenge to my theory of the self that it is "logically possible" that there is such a right hemisphere self in a split-brain patient, for my theory says that there isn't, and says why: the conditions for accumulating the sort of

[45] LeDoux *et al*., p. 418.

[46] *Ibid*., p. 420.

[47] Nagel, pp. 435-450.

[48] Dennett, p. 425.

narrative richness (and independence) that constitutes a "fully fledged" self are not present. My theory is similarly impervious to the claim — which I would not dream of denying — that there could be talking bunny rabbits, spiders who write English messages in their webs, and for that matter, melancholy choo-choo trains. There could be, I suppose, but there aren't — so my theory doesn't have to explain them.[49]

[49] *Ibid*., p. 426.

CHAPTER 5

PHENOMENOLOGICAL MODELS OF SELF

5.1 Metzinger's Ego Tunnel

So, if self per se is an illusion, who is dreaming Alice's dreams? What actually happens when we introspectively review perceptions and experiences? What makes Alice's memories *Alice's* memories? Thomas Metzinger tries to provide an answer to this question by introducing the concepts of Phenomenal Self-Model (PSM) and Phenomenal Ego.[50] PSM is formed by the brain and it is "the conscious model of the organism as a whole that is activated by the brain."[51] It is what provides the appropriation, the ownership of one's body, feelings, thoughts, etc. According to Metzinger, the Phenomenal Ego or phenomenal self is the *content* of PSM, namely, Alice's physical sensations, Alice's feelings,

[50] The Ego here is phenomenal in the sense that it is a content of PSM that is subjectively experienced.

[51] Metzinger (2010b), p. 4.

memories, perceptions, beliefs, etc. According to Metzinger, the phenomenal self is not some sort of entity, an unchangeable something that endures through time. It is rather, or in Metzinger's words, "*simply* the content of your PSM at this moment."[52] But it is more than just a subjective experience of "being Alice" at any given moment. How does this work? Metzinger draws a clear picture of what actually takes place:

> First, our brains generate a world-simulation, so perfect that we do not recognize it as an image in our minds. Then, they generate an inner image of ourselves as a whole. This image includes not only our body and our psychological states but also our relationship to the past and the future, as well as to other conscious beings…. By placing the self-model within the world-model, a center is created. That center is what we experience as ourselves, the Ego.[53]

What is peculiar and crucial about Metzinger's approach is that this phenomenal self, this Ego *exists* (I use this word for the lack of a better term) due to the transparency of PSM. By "transparency" Metzinger means the fact that basically, "we are unaware of the medium through which information reaches us…. We do not see the neurons firing away in our brain, but only what they represent to us."[54] Basically, when someone pinches you, it is not the firing of the C-fibers that constitutes the pain; the pain is represented in our consciousness. But the mechanism itself is transparent: when someone pinches you, your brain

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[52] *Ibid*., p. 8 (my emphasis).

[53] *Ibid*., p. 7.

[54] *Ibid*.

constructs the reality and you experience the feeling of pain without the representation of the mechanism behind it.

According to Metzinger, the phenomenal self, or "the conscious experience of being a self emerges because a large part of the PSM in your brain is transparent."[55] PSM is a simulation constructed in our brains, so "it is not reality itself, but an image of reality,"[56] enabling us to see the "world" through "ourselves". Lack of or malfunction in transparency (as perhaps in cases of schizophrenia) would result in the shattering of the whole simulation and the phenomenal self as a content would in a way dissolve, leaving us content-less and subjectively unaware.

Even the thought that in reality there is no such thing as color is rather unnerving. That is why we were so fascinated by the Matrix film, where a beautiful sunset was just a peculiar combination of '1's and '0's. And somehow it made sense, because "it is just as your physics teacher in high school told you: Out there in front of your eyes, there is just an ocean of electro-magnetic radiation, a wild and raging mixture of different wavelengths."[57] What actually happens is this: the visual cortex located in the occipital lobe of the brain processes the wavelengths and we "see" colors. But in dreams we also see colors while our eyes are

[55] *Ibid*.

[56] *Ibid*., p. 8.

[57] *Ibid*., p. 20.

closed and there are no visual stimuli. So in principle, with right activation of the brain you can "see" sunset even when you are just a brain in a jar:

> While we are drinking in all the colors, sounds, and smells – the diverse range of our emotions and sensory perceptions – it's hard to believe that all of this is merely an internal shadow of something inconceivably richer. But it is.[58]

Our sensations are limited and the reality of what we consciously perceive around us is never directly known to us because of the limitations of our sensory mechanisms. The shadow cannot exist independently of what's casting it, but all we can see sitting in the cave are shadows. Metzinger in a way modernizes Plato's metaphor by explaining what the cave walls, the shadows and the fire correspond to in the theory of phenomenal Ego.

> Phenomenal shadows are low-dimensional projections within the central nervous system of a biological organism…. The fire is neural dynamics…. The wall is not a two-dimensional surface but the high-dimensional phenomenal state-place of human Technicolor phenomenology…. The idea is that the content of consciousness is the content of a simulated world in our brains and the sense of being there is itself a simulation.[59]

For Metzinger, conscious experience is deeply internal and takes place in our brains despite the widespread belief that we exist *outside* our brains. Our consciousness is not only an internal process, it is also a unified

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[58] *Ibid*., p. 22.

[59] *Ibid*., pp. 22-23.

process that enables us to "connect the dots" and thus "keep it together". Because, as Metzinger asks,

> What if everything came apart? There are neurological patients with wounded brains who describe "shattered worlds", but in these cases there is at least some kind of world left – something that could be experienced as having been shattered in the first place. If the unified, multi-modal scene – the here and Now, the situation as such – dissolves completely, we simply go blank. The world no longer appears to us.[60]

Unified phenomenal self model could be an evolutionary tool that enables us to manage our behavior and anticipate behavior of others, thus increasing our chances of survival. For instance, let's recall the case of DID described by Humphrey and Dennett.[61] When she was little, she was sexually abused by her father. Such traumatic experience, according to Metzinger, led to the following:

> In Mary's model of reality, he [her father] lost his transtemporal identity as a person. It was impossible to mentally model him as one person. This development, however, was mirrored in her own self-model.… [T]he phenomenal model of reality constructed in the course of DID is characterized by the activation of multiple self-models. The content of these differing self-models is incompatible, for example, with regard to their spatial, emotional, or autobiographical content.[62]

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[60] *Ibid*., p. 28.

[61] Humphrey and Dennett, pp. 3-6.

[62] Metzinger (2003), pp. 525-526.

This seems to be a plausible explanation of the emergence of "multiple selves" in one person. It is very likely that during her traumatic experience, in order to make sense of what was going on, Mary alienated with her overall sense of self because of the aggressive behavior of the person she knew as her father and protector, developing a sense of another self because that horrific experience could not have been happening to her, the object of his love and protection. The radical shift in her father's behavior may have caused a shift in her grasp of the reality and being unable to make sense of it, she should have shifted her self, creating an alternative that would make sense. But in terms of self and personal continuity, such model might further complicate the matter: how multiple PSMs are formed, or what would be the PSM in a brain-transplant person and how would such PSM contribute to her personal continuity, if that is the case? Furthermore, how the phenomenal self as merely a content of PSM accounts for, say, the schizophrenic patient's delusion of thought insertion?

5.2 Carruthers' phenomenological approach: synchronic and diachronic aspects of self

Another phenomenological model of self is proposed by Glenn Carruthers, who states that the phenomenology generated by our minds

is underlain by a set of certain cognitive capacities.[63] He begins by referring to Thomas Metzinger's account of phenomenal model of self, but disagrees with Metzinger's claim that there is no such thing as self per se. Carruthers uses the notion of "sense of self" to support his claim that the self itself is the "set of cognitive capacities that underlie the various senses of self".[64] His aim is to model these cognitive capacities in order to model a self, using examples from various experiments as evidence for the phenomenology of self. According to him, there are various senses of self, such as sense of boundedness, sense of agency, sense of ownership and sense of being extended in time[65], which are cognitive capacities underlain by synchronic self (a self at a particular moment) and diachronic self (a self extended in time). The first three senses are related to the synchronic self, while the latter – the sense of being extended in time – enables the diachronic self:

> The sense of the synchronic self is the moment-by-moment feeling we all have of being a distinct entity. Beyond this, our sense of control over our own thoughts and actions also arises from the synchronic self…. Diachronic self, on the other hand, underlies feelings of temporal extension, the feeling that we have of being the same person over time.[66]

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[63] Carruthers, pp. 533-534.

[64] *Ibid*., p. 548.

[65] *Ibid*., p. 536.

[66] *Ibid*., p. 537.

Using the evidence of the experiments conducted by Daniel J. Povinelli (2001), where young children's reactions to mirror images and delayed video feed suggested that "the diachronic and the synchronic aspects of the self arise at different stages in development"[67], Carruthers comes to a conclusion that synchronic self and diachronic self are "two dissociable *capacities* that underlie the phenomenology of the self".[68] He claims that due to the developmental dissociation, "the synchronic and diachronic selves have distinct ontogenetic trajectories"[69] and consequently these two selves (capacities) are distinct. Diachronic self arises after the synchronic self.

Carruthers seems to use "self" and "sense of self" interchangeably in the sense that he refers to both as "cognitive capacity". He repeatedly insists:

> [T]he self is composed of a number of dissociable capacities. All of the distinctions I have argued for are based on the fact that the different senses of self are empirically dissociable. Underlying each of these senses of self is a distinct cognitive capacity—a *distinct self*.[70]

His main goal is to form a model of synchronic self, so in order to achieve that, Carruthers tries to show that "the synchronic self is

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[67] *Ibid*., p.536.

[68] *Ibid*., p. 534, my emphasis.

[69] *Ibid*., p. 537.

[70] *Ibid*., p. 538.

composed of four dissociable capacities".[71] In his model he focuses on these four capacities within two categories, one of which is of mind (M) and the other of body (B): the agentive$_B$ self, the boundary$_B$ self, the agentive$_M$ self and the boundary$_M$ self. The first two selves form the basis for the control of and boundedness within one's body, while the latter two form the basis for the control of and boundedness within one's mind. To demonstrate the distinction between the agentive$_M$ self and agentive$_B$ self, Carruthers uses examples of the delusion of alien control and the delusion of thought insertion. For instance, a patient suffering from the delusion of alien control complains that the movements of her body are controlled by someone else, i.e. it is *not her* who controls the movements; a patient suffering from the delusion of thought insertion complains that the thoughts in her mind have been inserted by someone else, i.e. it is *not her* who had thought these thoughts. In the first example, the patient's agentive$_B$ self is absent and in the second example, the patient's agentive$_M$ self is absent. Yet their boundary$_M$ and boundary$_B$ selves are intact.

To demonstrate the distinction between the boundary$_M$ self and the boundary$_B$ self, Carruthers uses the examples of the delusion of thought broadcast and the Cotard's delusion. For instance, a patient suffering from the delusion of though broadcast typically complains that her thoughts are broadcasted to everyone around, i.e. her thoughts are

[71] *Ibid*., p. 534.

not contained within her mind: "As I think, my thoughts leave my head on a type of mental ticker tape. Everyone around has only to pass the tape through their mind and they know my thoughts".[72] A patient suffering from the Cotard's delusion typically complains that she died and she claims that her body began to decompose and should be buried as soon as possible:

> The Cotard patient experiences her perceptions and cognitions, not as changes in her self, but as changes in the states of the universe, one component of which is her body, which now feels like an inanimate physical substance, first decomposing and finally disappearing.[73]

In the example of the delusion of thought broadcast, the patient's boundary$_M$ self seems to be absent; in the Cotard's delusion example, the patient's boundary$_B$ self seems to be absent. Yet their agentive$_M$ and agentive$_B$ selves seem to be intact. Again, Carruthers uses the terms "self" and "sense of self" interchangeably to mean "cognitive capacity", so the patients have or lack these "selves" in the sense of having or lacking certain cognitive capacities. Carruthers uses these examples to demonstrate that these four elements of the synchronic self, i.e. cognitive capacities, are distinct and independent from each other, although he confesses that the explanation of the boundary$_M$ self is yet to be found.

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[72] Mellor, p. 17.

[73] Gerrans, p. 50.

Nevertheless, the self in Carruthers' model is defined as a set of cognitive capacities. Does this mean that these are various selves underlying various senses of self that are also cognitive capacities? His explanation of these cognitive capacities in terms of other cognitive capacities is rather confusing and so far disregards the diachronic aspect of the self. Whereas Carruthers indicates that "the diachronic self underlies experiences of temporal extendedness"[74], he does not clarify what cognitive capacities are required for the explanation of the sense of being extended in time. Defining the phenomenology of self in terms of cognitive capacities seems to force Carruthers to distinguish between the *sense of synchronic self* and the *sense of diachronic self*:

> The sense of the synchronic self is the moment-by-moment feeling we all have of being a distinct entity. Beyond this, our sense of control over our own thoughts and actions also arises from the synchronic self…. Diachronic self, on the other hand, underlies feelings of temporal extension, the feeling that we have of being the same person over time.[75]

For the purposes of my dissertation, which does not aim at criticizing Glenn Carruthers' explanation of the cognitive capacities that may or may not constitute the self, I prefer to distinguish between *synchronic sense of self* and *diachronic sense of self*. In the following sections, I explain how we come to have synchronic and diachronic senses of self.

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[74] Carruthers, p. 548.

[75] *Ibid*., p. 537.

5.3 Diachronic sense of self vs. synchronic sense of self

Trying to discover what self is, Galen Strawson states that "whatever a self is, it is certainly (a) a subject of experience, although it is certainly (b) not a human being considered as a Whole."[76] Given that a self is thus "the experiencer", in order to answer the ontological question, Strawson insists that the phenomenological question about the nature of self-experience[77] must be answered first. According to Strawson, who considers himself a materialist, "there are many short-lived and successive selves (if there are selves at all), in the case of ordinary individual human beings"[78], which are also physical objects. He divides human beings into Diachronics (those who in the present have a strong notion of themselves in the past and in the future) and Episodics (those who in the present have weak notions of themselves in the past and in the future).[79]

In the beginning, we are all "Episodics" and then we gradually turn into "Diachronics", as our cognitive capacities expand. To have these notions as described above means that we have synchronic and diachronic senses of self. In order to demonstrate that, let's examine the

[76] Strawson (2000), p. 39.

[77] *Ibid*.

[78] Strawson (1999), p. 100.

[79] *Ibid*., p. 109.

evidence from a number of experiments conducted by Philippe Rochat[80] and Daniel J. Povinelli[81], involving the reactions of 2-, 3- and 4-year-old children to delayed videos, recent photographs of themselves and mirrors. Such experiments are not new. In 1962, Jean Piaget wrote about his daughter's (Jacqueline) reactions to her images in the mirror and on the photographs.[82] Although Jacqueline (23 months old and later, 35 months old) was able to recognize herself in the mirror and on the photographs, she referred to herself in third-person, as if she and the "image-Jacqueline" were distinct.

According to Rochat, there are six levels of self-awareness.[83] The first four levels can be connected to synchronic sense of self, while the last two – to diachronic sense of self, although the last level is of little interest to us in terms of this particular philosophical inquiry. The levels I find most interesting are "Identification" (3) and "Permanence" (4), where a person identifies with herself in the present, as well as with her

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[80] Rochat (2003), pp. 717–731.

[81] Povinelli, pp. 75-95.

[82] Piaget, pp. 224-225.

[83] Level 0 – Confusion, when the subject is unaware of the mirror and the reflection.
Level 1 – Differentiation, when the subject realizes that the reflection she perceives in the mirror is contingent with reality.
Level 2 – Situation, when the subject comprehends the connection between the image and herself.
Level 3 – Identification, when the subject explicitly recognizes herself in the reflection and identifies with it.
Level 4 – Permanence, when the subject identifies herself as a temporally extended self.
Level 5 – Self-consciousness, when the subject identifies herself from both first- and third-person perspective. Rochat (2003), pp. 719-722.

past and future selves. These levels of self-awareness are best shown in the experiments, conducted by Daniel J. Povinelli. Povinelli's main research area was the temporally extended self in chimpanzees; however, he also decided to explore the temporally extended self in human children. For the purposes of my dissertation, I will apply the distinction between synchronic and diachronic senses of self to Povinelli's experiment and conduct the discussion accordingly. First, instead of using mirrors, Povinelli used delayed video recording of the children, aiming at testing children's ability of self-recognition:

> We individually videotaped 2-, 3-, and 4-year-old children and a familiar adult as they played an unusual game that they had never played before. During the game, the experimenter praised the child several times by patting him or her on the head. The experimenter used the final pat as the opportunity to place a large, brightly colored sticker on the child's head. Three minutes later, the child was shown a video recording that clearly depicted the previous events of (a) the child playing the game, (b) the experimenter placing the sticker on his or her head, and (c) several ensuing minutes of the child with the sticker on his or her head.[84]

The results were surprising: after being shown the video, although 2- and 3-year-olds could identify themselves in the video, only 25% of the 3-year-old children tried to remove the sticker and none of 2-year-olds had. On the other hand, 75% of the 4-year-olds almost instantly touched their heads to remove the sticker. Although the gap between the

[84] Povinelli, p. 77.

recording and the viewing of the video was only three minutes, it is clear that all of 2-year-old and the majority of the 3-year-old children were unable to associate the image of themselves in the past with their present selves. The importance of this experiment can be explained as follows: if the experiment was conducted with mirrors, the subjects would try to remove the sticker because of their synchronic sense of self. However, their trying to remove the sticker after observing the delayed image of themselves indicates that children would have to have a temporally extended, diachronic sense of self. Povinelli states that "several additional studies tested even more directly the idea that the older preschoolers (i.e., 4- and 5-year-olds) are explicitly able to understand the causal structure of the extension of the self in time."[85] I believe that what this experiment showed is actually the clear distinction between the synchronic and diachronic *senses of self*.

5.4 The elements of the sense of self

Glen Carruthers' initial four-fold categorization that I briefly discussed in section 5.2 included sense of boundedness, sense of agency, sense of ownership and sense of being extended in time and had a potential for development into a better and different account for the purposes of my dissertation, which is to dissolve the notion of self entirely and thereby

[85] *Ibid*., p. 92.

solve the puzzles posed by the thought experiments and extreme real-life cases.[86]

In order to construct a more dynamic model that makes room for the diachronic aspect of the sense of self, I reconsider the categorization applied by Carruthers and redefine the elements of the sense of self accordingly. For instance, from now on I will use the term "sense of distinction" instead of "sense of boundedness", because my term not only depicts the boundary features of the body and mind and the environment, but also enables us to distinguish our bodies and minds against the bodies and minds of others, as well as against the environment. The distinction is made not only between Alice and the rest of the world, but also between Alice and others, thus enabling us to consider the puzzles of the thought experiments and real-life puzzle cases. Instead of "sense of agency", I will use the term "sense of control", because the agency presupposed by Carruthers' categorization also presupposes the existence of self, the notion of which I am trying to dissolve in the first place. Using the term "sense of control" I avoid unnecessary commitment to such notion as "agentive self" of Carruthers and such distinctions as "*voluntary/involuntary* action". With regard to "sense of ownership" employed by Carruthers in his initial categorization, I prefer the term "sense of appropriation", because the

[86] Let me point out that unlike myself, Carruthers is not interested in dissolving the notion of self, nor does he attempt to address any of the known puzzles of the problem of personal identity.

latter has a broader extent: for instance, we simply own our thoughts and desires, but we can also *appropriate* false memories or testimonies of third persons. Carruthers states that "the sense of ownership arises from both the boundary and the agentive self".[87] So both agentive and boundary selves underlie the sense of ownership. Loss of one or the other may lead to the loss of sense of ownership. However, one may have no sense of ownership in certain pathological cases such as the delusion of alien control or the delusion of thought insertion, yet one may very well have a sense of appropriation with regard to alien limb or alien thoughts. Thus, the term "sense of appropriation" is more dynamic and effective than Carruthers' "sense of ownership". Finally, instead of "sense of being extended in time", I will use the term "sense of presence in time" which, in turn, captures both the synchronic and the diachronic aspects of the notion of sense of self. Unlike Carruthers' initial categorization and finalized approach stating that the senses of self are dissociable independent cognitive capacities, the redefined senses of self I adopt are more interconnected and dynamic and thus are more suitable for my goal of dissolving the notion of self to tackle the thought experiments and extreme real-life cases.

In order to demonstrate the need for a more dynamic approach, let's take a closer look at these senses of self. When Alice goes to the fridge and opens it to get some ice-cream by reaching inside, it is the sense of control and sense of distinction that she feels while trying to

[87] Carruthers, p. 538.

move her hand carefully in order to avoid sharp ice inside the freezer and to be quiet not to wake Margaret up and thus avoid sharing the ice-cream. These two senses, of distinction and of control, are indeed closely related to the sense of appropriation. Alice appropriates her rumbling stomach, her thoughts of ice-cream, her intentionally quiet movements and the idea of secrecy and the pleasure of eating the whole box of ice-cream alone. She has the sense of presence in time. While Alice reaches for the ice-cream and thinks of Margaret, who was mean to her that afternoon, she smiles with an anticipation of Margaret's disappointment when in the morning she will realize that the ice-cream is gone. Alice experiences a sense of being in the past, in the present and in the future, but more importantly, she experiences being *Alice* in the past, in the present and in the future. She has a sense of presence in time.

While we commonsensically (and according to Hume, mistakenly) regard ourselves as unified selves, what makes us so sure that certain perceptions we have are in fact ours? It is clear that we have a sense of self, as we perceive ourselves distinct from other people and objects, distinguishing between our bodies and the bodies of others, distinguishing between our minds and presumable minds of others. Alice knows that when she is hungry, it is her stomach that rumbles, not Margaret's. Ideally, she knows that when she thinks of ice-cream, the

thought of ice-cream occurs in her mind, not Margaret's, and the thought in question is, in fact, hers.[88]

These senses constitute the overall sense of self. How does this overall sense of self work? How does Alice know that it is her stomach that is rumbling, and not Margaret's and that this thought is in her mind? Clearly, Alice's self is not Margaret's self. The phenomenal nature of it could be expressed rather simply as follows:

Alice's self is her self and not Margaret's because she feels that she is her, and not Margaret.

Provided that Alice does not suffer from a severe case of Alzheimer's or dementia, Alice has a *sense of being her*. She has a sense of her body, her surroundings, her actions and intentions, her past and possible future. She appropriates not only her stomach rumbling, but as it was discussed via Dennett's example of saliva, is able to differentiate between her stomach rumbling and Margaret's stomach rumbling. She knows that it is *her* stomach that rumbles, because she has a sense of distinction, which is the result of the evolutionary boundaries, as explained by Dennett.[89]

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[88] There are cases of schizophrenia, where patients suffer from delusion of thought insertion. C.S. Mellor states that "patients invariably complain of some external agency imposing the thoughts, by varied means, upon their passive minds." Another related example provided by the author is the diffusion or broadcasting of thoughts, where "the patient, during the process of thinking, has the experience that his thoughts are not contained within his own mind." Mellor, p. 17.

[89] Dennett, p. 414.

This sense of distinction includes not only "in Alice's body/not in Alice's body" cases, but also "in Alice's mind/not in Alice's mind" cases, such as future planning, pain, or the point of view, when Alice looks at her surroundings. When Alice took a bite of an upelkuchen and grew taller, she had experienced a sense of distinction in its greatest extent, when she hit the ceiling with her head. This sense of distinction is manifested in the change of Alice's perspective, when her surroundings became smaller and smaller, and as they grew bigger, when she drank the mysterious shrinking fluid.

Another element of the sense of self, experienced by Alice would be a sense of control. Alice controls her actions, mental and physical, by appropriating them, when she knows that it is her moving her hand (provided she does not suffer from the delusion of alien control), or knows that it is her head that hurts when she hit the ceiling. This sense is closely connected with the sense of distinction we discussed above. To give an example, let's recall the case of Brownson, where Mr. Brown's brain was put into Mr. Robinson's body. Since Mr. Robinson's brain did not survive, there is no need to call the remaining person Mr. Brownson anymore. He has a sense of distinction and a sense of control, despite the fact that he has Mr. Robinson's body. Why? Because when he is hungry, it is he, Mr. Brown, who is aware of the rumbling stomach in his current body; and when he moves his (technically, Robinson's) hand, it is he who controls the action and hence has the sense of control over his body and its surroundings, when he pushes something away. Thus, in

Brown's case, although Mr. Brown technically has Mr. Robinson's body, the senses of distinction and control are of Mr. Brown.

The other two elements of the sense of self, closely connected to those discussed above are a sense of appropriation and a sense of presence in time. Although Alice has troubles with explaining herself to the Caterpillar because she, apparently, is not herself anymore, yet since the senses of distinction and control, a sense of appropriation and a sense of presence in time are what Alice has when she thinks, plans, remembers or generally has thoughts, because these are Alice's thoughts, plans, memories, etc., and no one else's. She has a sense of presence in time, and because she remembers not only what happened to her, but also that what happened to her actually *happened to her* and not to somebody else. She makes plans for the future, recalls past events and even appropriates presumably false memories. Remember the question we asked previously, whether remembering travelling to Wonderland actually means that Alice has been to Wonderland. Now we can answer with a higher degree of certainty, that even if Alice had not travelled to Wonderland, it does not matter, because in terms of the phenomenology of self, she has experienced the sense of *her* self being there. So, as far as we can imagine and as far as she knows, *she* was there, as long as she maintains the sense of self.

5.5 Early development of the sense of self: now I see Me and now I don't

The senses of distinction, control and perhaps appropriation probably develop kinesthetically in early infancy[90], when infants gain mobility and begin to explore their bodies and surroundings, touching and feeling themselves, their cribs or anything else around them.

> If a biological system does not simply respond automatically to meaningless stimulation and if, on the contrary, it shows exploration, plasticity (discovery of new solutions), and orientation towards functional goals, it implies that it knows something about itself: It perceives itself as an agent, differentiated, and situated in the environment.[91]

For example, when you play peek-a-boo with an infant for some amount of time, you can easily observe how the child learns her physical boundaries and surroundings, learns to control her actions, develops a notion of object permanence and finally uses her hands to make you remove your hands and show your face, thus not only recognizing you as a permanent being, but also gaining control over her actions and realizing your spatial and temporal presence, as well as hers. The sense of presence in time, however, develops in much later age, when children begin to realize that past events have effect on present events and on future events as well.

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[90] Rochat (1995), pp. 53-54.

[91] *Ibid*., p. 57.

According to Povinelli, the experiments with delayed video mentioned above and additional studies conducted with Polaroid photographs, live video feed and "hidden puppet" have shown that the representation of the self in present gradually transforms into "representation that explicitly includes the connection among the present, past and future states of self".[92] Povinelli argues that older children form an equivalence relation between themselves and their delayed images and between the past and the present, whereas younger children fail to do so, or rather, detect non-equivalence. In other words, older children understand the consistency between themselves and their delayed images, while younger children recognize no consistency as such. Such absence of equivalence suggests that younger children do not recognize themselves as the continuation of their past selves and fail in grasping the causal structure of time. The "hidden puppet" experiment aimed at exploring the children's ability to form a diachronic sense of self and an ability to grasp the causal relations between past and present:

> We initially tested this idea by introducing 3- and 4-year-old children to two empty boxes along a wall. After the children saw that both were empty, one experimenter sat down between the boxes. The other experimenter seated the children at a table so that their backs were to the boxes (and the other experimenter) and then proceeded to play a game with the children. About halfway through the game, the experimenter who was seated between the boxes silently took out a familiar puppet, held it up, and placed it inside

[92] Povinelli, p. 82.

> one of the two boxes. Although the children were unaware that this event had happened, a video camera clearly captured them playing the game, the experimenter behind them, and her actions as she hid the puppet.[93]

Afterwards, the children were shown two videos, one from minutes ago, featuring them, and the other featuring another child, similar in age and gender, showing the same act of hiding the puppet, but into the other box. The children then were asked to point at the location of the puppet.

Despite the fact that almost all of younger children were able to identify themselves in the video, their rate of success in pointing at the location of the hidden puppet were only fifty percent, "suggesting that they did not see any special significance in the information provided in self tape"[94], i.e. they did not differentiate between the causal connection between the events that involved them and the events that involved the other child. Older children, on the other hand, were able to identify themselves and also pointed at the location of the hidden puppet with significantly high rate of success. In other words, older children recognized themselves as extended in time and recognized and used the significance of the information provided in the self tape, correctly connecting the past with the present.

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[93] *Ibid*., p. 90.

[94] *Ibid*., p. 91.

5.6 Illusions of the sense of self

Interestingly, the sense of self is vulnerable and susceptible. Its elements may perish when a person loses her memory, or is damaged psychologically or physically. Moreover, the sense of self can also be "tricked". The "rubber-hand illusion" experiment, conducted in 1998 by Botvinick and Cohen, shows how this is possible:

> Each of ten subjects was seated with their left arm resting upon a small table. A standing screen was positioned beside the arm to hide it from the subject's view and a life-sized rubber model of a left hand and arm was placed on the table directly in front of the subject. The subject sat with eyes fixed on the artificial hand while we used two small paintbrushes to stroke the rubber hand and the subject's hidden hand, synchronising the timing of the brushing as closely as possible.[95]

The result of the experiment was that the subjects experienced tactile illusions, confusing the brush touches to their left hands and to the rubber hand they saw. Basically, the scientists tricked the brains of the subjects to perceive the rubber hand in front of them as the hands of the subjects. The subjects perceived the rubber hand as their own, appropriating a completely distinct and foreign object to their "selves". Such appropriation is possible not only with parts of a body, but also with the whole body of a person. Metzinger discusses out-of-body experiences, some of which were spontaneous, some carefully conducted

[95] Botvinick and Cohen, p. 756.

in laboratory environment.[96] Out-of-body experiences are said to be illusions of being outside your body, typically you floating over your body, watching yourself from above. Mysticism aside, Metzinger insists that these experiences clearly demonstrate that self is "a form of conscious representational content [that] can be selectively manipulated under carefully controlled experimental conditions".[97] In other words, a person can be tricked to perceive another person's body or even an object (such as a dummy) as her own.

Various experiments[98] regarding such experiences include setups wherein the subjects are enabled to see a body of another person or a dummy from the first person perspective. Using visual and tactile stimuli conditioning, the subjects are manipulated into identifying with another person's body or with a dummy to such an extent that, when the body or the dummy is threatened (with a knife or another sharp object), the subjects exhibit higher skin conductance response[99], which is considered to prove that the subjects identified themselves with the dummy or another person's body. The evidence shows that "visual information from the first person perspective is critical for the experience

[96] Metzinger (2010b), pp. 82-101.

[97] *Ibid*., p. 6.

[98] Petkova and Ehrsson (2008), Blanke O. et al. (2005), Olivé and Berthoz (2012), Ehrsson (2007) and many others.

[99] Skin conductance response (SCR) is the physiological reaction of the body, showing increase in the electrical conductivity of the skin, typical for anxiety or fright.

of owning a body."[100] Before we are even aware, we connect the touch of the brush or the threat of a knife to the body we see from the first-person perspective and somehow relate these in order to appropriate the tactile impressions we have to the perceived body, identifying with it. We are tricked to construct a "self" from our experience, or as Hume says, "in order to justify … absurdity we often feign and imagine some new and unintelligible principle, that connects the objects [experiences] together…"[101] We seem to "localize" ourselves inside our bodies via visual-spatial perception. By manipulating the conditions and creating a conflict between senses of sight and touch, it is shown that a person can "localize" herself inside another person's body or a dummy. We have a *sense of being in another body*.

[100] Petkova and Ehrsson, p. 7.

[101] Hume, p. 254.

CHAPTER 6

SENSE OF SELF AND CONSCIOUSNESS:

NOW YOU EXIST AND NOW YOU DON'T

6.1 Thought experiments reviewed

When Alice goes through changes, what makes her the same person over time? In order to be able to answer this question, let's review the variety of changes Alice could go through. We could disassemble her into molecules and then reassemble her back molecule by molecule. In such a case, just as in the similar variant of the Ship of Theseus, the reassembled Alice^{R} would be identical to the original Alice^{O} over time. The following statement seems plausible:

If X consists of a number of parts and these parts are disassembled and then reassembled in such a way as to put the parts back into their original positions, thus building Y, then Y is identical to X over time.

If Alice^{R} looked in the mirror or saw herself in a delayed video feed, she would immediately recognize herself and identify with the image. She would have the same body and brain and the same beliefs, thoughts, memories, plans for the future, etc. Ideally, since her brain would be reassembled in the exact same way it was before, all neural paths would be preserved, producing the same mental states. She would be the continuation of Alice^{O}. She would retain her senses of distinction, control, appropriation and sense of presence in time, i.e. retaining her sense of self, sense of being Alice^{O}.

Now let's destroy Alice^{O} and then rebuild her from another set of molecules, building her from "blueprint", but with different molecules, similar to the way the Ship of Theseus is destroyed and rebuilt to the last detail, but using new planks, or when we teletransport Alice to another planet.

If X consists of a number of parts and these parts are destroyed and then Y is built using different materials in such a way as to put the different materials into the original positions of the original materials, then Y is not identical to X over time.

In this case, the rebuilt Alice^{RB} is not identical to Alice^{O}; she is just very similar to Alice^{O}. To clarify, let's modify the above principle as follows:

If X consists of a number of parts and then Y is built using different materials in such a way as to put the different materials into the original positions of the original materials while all parts of X are destroyed afterwards, then Y is not identical to X over time.

Basically, Alice^{O} is cloned and then destroyed. In this scenario, the clone, Alice^{C}, is not identical to Alice^{O} over time, because Alice^{C} is not physically the continuation of Alice^{O}. Due to the similarity in the material and structure, the body, the brain and the thoughts, memories, etc. and sense of self of Alice^{C} may seem the same, but the truth is simple: Alice^{O} ceased to exist. We can make hundreds of clones – each of the clones will have their own distinct senses of self, but none of them will have Alice^{O}'s sense of self; in that sense, none of them will be Alice^{O}.

I have already explored in previous chapters whether gradual replacement of Alice^{O}'s molecules with different molecules makes any difference on the bodily level because as a matter of fact, you and I lose body parts at any given time (e.g. skin cells, hair, bodily fluids, etc.). A more interesting endeavor would be to explore if her sense of self is altered. How would that go? Let's go back to the thought experiment of Brain Swap, where Mr. Brown wakes up in Mr. Robinson's body. To recap Shoemaker's intuitive description of what happens:

> It seems to me that I can imagine being in the position of the Brownson of my example. I can imagine waking up after an operation and being surprised by the appearance of my body (e. g., as seen in a mirror). I can imagine seeing some other body, which I recognize (or seem to recognize) as my body of the previous day, and being told that the brain from that body had been placed in the skull of my present one.[102]

[102] Shoemaker, p. 32.

We already decided that the resulting person should not be called Brownson, because when he is hungry, it is he, Mr. Brown, who is aware of the rumbling stomach in his current body. He has retained his mental states and he is in control of his body, however different that body now "feels" to him. Shoemaker thinks that "he will be surprised by the appearance of his body".

That may not be entirely true. To clarify, let me complicate the situation and imagine that after the operation, Brown is laying in a hospital bed, with bandages on his head and face, only the eyes not obstructed. He is tightly covered with a blanket so that no body parts are clearly visible. Suppose the hospital room has a mirror on the ceiling. As everyone else, Brown has a mental representation of what he looks like, an inner image of himself. When he opens his eyes, he is confused, unaware of the mirror and his reflection in it first. Then he notices the mirror, sees a reflection of a person in bandages lying on a bed covered with blanket. He tries to look around and realizes that the reflection in the mirror is consistent with the reality. When he tries to move his arm or blinks, he sees that the person in the mirror also tries to move an arm or blinks. Without actually recognizing himself (since bodily and facial features are not visible to him), Brown identifies with the reflection in the mirror.

He retains his sense of self due to the persistent senses of distinction, control, appropriation and being present in time. Suppose

Brown is then moved to a regular room without mirror ceiling, and bandages are removed, but he is not allowed to get out of the bed. Now he has a chance to look at his body, his hands, his torso and legs. He notices that something has changed. Now if he catches a reflection in the mirror, it will be just *a* reflection, he will not identify with it. Due to the mental representation of himself, Brown has an expectation about his own reflection, so when the expectation does not correspond to reality, the first intuition a person would have would be to deny the reality, relying on the inner representation. But as in the experiment with out-of-body experience mentioned earlier, when the nurse sticks a needle in his arm, or when the itch in his foot is reduced as he scratches it, Brown would eventually somewhat "localize" himself in this new body – he will appropriate this new body to himself, i.e. he will have a sense of being in this new body.

Similarly, Mr. Robinson, who has woken up in Mr. Brown's body, would eventually appropriate the new body to himself. Such appropriation though would hold only to a certain extent, given the fact that prior to the operation, Brown's and Robinson's respective selves were "in" their respective bodies. So, one can hardly imagine that Mr. Brown would identify himself with an image of Mr. Robinson in a video from, say, 10 years ago due to the fact that Mr. Brown obviously has no memories of such event.

Earlier, I discussed a thought experiment called Fission, where Alice and her two triplet sisters have a terrible accident, where Alice's body is fatally injured, yet her functionally equivalent brain hemispheres survive and while the brains of her sisters are irreparably injured, while their bodies are in good condition, so each of Alice's hemispheres is transplanted to the bodies of her sisters. In such case, two distinct persons come into existence, each with their own sense of self, senses of distinction, control, appropriation and being present in time. Both Alice^{R} and Alice^{L} have their own phenomenally unified senses of self. (Let us note, however, that if the original Alice^{O}'s hemispheres were not *functionally equivalent*, the resulting person might exhibit merely an illusion of two separate senses of self, unlike what Joseph E. LeDoux, Donald H. Wilson and Michael S. Gazzaniga tried to show.[103])

Let's now consider the possibility of emergence of two separate senses of self in one person by means of cutting the *corpus callosum*. The following patient report seems to support the idea of two separate senses of selves, emerging in this case:

> In the first months after her surgery, shopping for groceries was infuriating. Standing in the supermarket aisle, Vicki would look at an item on the shelf and know that she wanted to place it in her trolley — but she couldn't. "I'd reach with my right for the thing I wanted, but the left would come in and they'd kind of fight," she says. "Almost like repelling magnets." Picking out food for the week was a two-,

[103] LeDoux *et al.*, pp. 417-421.

> sometimes three-hour ordeal. Getting dressed posed a similar challenge: Vicki couldn't reconcile what she wanted to put on with what her hands were doing. Sometimes she ended up wearing three outfits at once.[104]

This paragraph implies that Vicki had two senses of self with distinct desires, opinions and presumably other mental states. But given what we discussed regarding the constituents of the sense of self, it is now obvious that Vicki's sense of self was not split; she had a unified sense of self, with exception of some impairment in her sense of control, but she had nevertheless a singular sense of self. *Corpus callosum* is responsible for the connection between right and left hemispheres, so when it is severed, the hemispheres are simply unable to "communicate"; they do not separate and form distinct consciousnesses. For instance, since the left hemisphere is responsible for speech and analytical tasks while the right hemisphere is responsible for emotions and imagination, once the *corpus callosum* is severed, a split-brain person is unable to say the words "white rabbit" written on a paper and shown to the right hemisphere, but can pick the image of a white rabbit from a variety of images. This shows that the right hemisphere can read, but is unable to articulate the read text. This does not imply that there are two fields of consciousness in split brain cases.

> Patients whose commissure has been surgically severed display a variety of behavioral deficits that indicate a loss of access by one hemisphere to information it used to get from

[104] Wolman, pp. 260-263.

> the other. However, in people with callosal agenesis (a congenital defect in which the connecting cable is simply absent), there is little or no behavioral deficit, suggesting that the two hemisphere have learned to exploit the information carried in other less direct pathways connecting them through the subcortical regions. This suggests that, even in the normal case, a developing hemisphere learns to make use of the information the cerebral commissure deposits at its doorstep.[105]

6.2 Fused senses of self: the extreme cases of the craniopagus twins

Craniopagus twins are the twins born with conjoined heads and brains. Such cases are extremely rare, some of the twins have died after separation, some have been successfully separated, while others remain conjoined, either by choice, or/and due to the significant risk to their physical and mental health. For the purpose of my dissertation, I will discuss two cases of craniopagus twins: Lori and George Schappell (born in 1961) and Krista and Tatiana Hogan (born in 2006).

The Schappell twins are the oldest living craniopagus twins – in 2011, they celebrated their 50th birthday. In their youth, the twins were institutionalized as mentally impaired, but as they reached adulthood, they fought against their diagnosis and were released from the institution. The sisters refused to be surgically separated, but they live

[105] Churchland, p. 87.

relatively separate lives despite the fact that they share 30% of the brain tissue: their frontal and parietal lobes are connected and sisters face opposite directions. George is an awarded country singer and Lori arranges her work schedule in accordance with her sister's needs, because George has mobility impairment. Lori enjoys bowling whereas her sister has got a number of pets. In their numerous interviews, sisters persistently pointed out that they are two different people that just happen to be conjoined.

A team of neurologists at the Hospital of the University of Pennsylvania, lead by Dr. John A. Detre, M.D., conducted a number of brain scans on the Schappell twins in order to test their brain functions. Functional MRI scans identify brain activity by capturing the slightest changes in the blood flow in response to various stimuli. Neurologists transmitted auditory stimuli (playing recordings and setting tasks) to only one of the twins at a time using tight headphones. Various parts of the brain light up on the scans in response to the stimuli. If the other twin could also detect the information coming into the brain of the twin given the auditory stimuli, both their brains should have shown activity on the scanner. With the variety of auditory stimuli, the scans reveal that the certain areas of the brain are more active during the "task" phase and less active during the "rest" phase.

The images acquired while George was listening to a speech showed that certain areas in her brain were more active, while scans of

Lori's brain did not show any increase in the activity. Despite the fact that 30% of the brain tissue of the twins is conjoined, the scans clearly demonstrated that two brains functioned independently. Although anatomically it seemed that the Schappell twins had a fused brain, fMRI scans proved what Lori and George knew all along: they are two separate people with two independently functioning brains.[106]

Due to the extensive amount of the shared brain tissue and now due to their age, Lori and George cannot be surgically separated even if they chose to. It is safer to surgically separate craniopagus twins during infancy, when the brains can still rearrange their nerves and blood flow. Also, the infants withstand the shock of surgery easier than adults. But in case of Krista and Tatiana Hogan, surgical separation not only requires bone and skin transplantation and major vascular surgery, but may cause serious brain damage. Krista and Tatiana Hogan's case is unique among the craniopagus twins because the girls share a neural bridge called *thalamus*, which enables the transfer of the sensory data to various areas of the brain and regulates conscious and unconscious states. Dr. Douglas Cochrane, M.D., their pediatric neurosurgeon at the British Columbia Children's Hospital, states that due to this neural bridge, the brains of the sisters could be receiving the sensory data

[106] Discovery Channel documentary series, "Extreme Bodies", retrieved from http://videos.howstuffworks.com/discovery/32215-extreme-bodies-separating-cranial-conjoined-twins-video.htm; BBC NEWS interview with Schappell twins as part of the BBC's "Who Runs Your World" series, "Sisters' Hope: Conjoined Twins", retrieved from http://news.bbc.co.uk/go/pr/fr/-/2/hi/health/4260178.stm, published on 21.09.2005.

almost simultaneously. The peculiarity of their unique case is described by *The New York Times* journalist Susan Dominus as follows:

> The twins, who sleep in one specially built, oversize crib, lay on their stomachs, their bottoms in the air, looking at an open picture book on the mattress. Slowly and silently, in one synchronized movement, they pushed it under a blanket, then pulled it out again, then back under, over and over, seeming to mesmerize each other with the rhythm. Suddenly the girls sat up again, with renewed energy, and Krista reached for a cup with a straw in the corner of the crib. "I am drinking really, really, really, really fast," she announced and started to power-slurp her juice, her face screwed up with the effort. Tatiana was, as always, sitting beside her but not looking at her, and suddenly her eyes went wide. She put her hand right below her sternum, and then she uttered one small word that suggested a world of possibility: "Whoa!"[107]

This short exclamation could mean that the sensory input received by the *thalamus* branches into both brains, so Tatiana is able to feel what Krista feels and vice versa:

> "Now I do it," Tatiana said, reaching for the cup from which her sister was just drinking. She started to chug. Krista's hand flew to her own stomach. "Whoa!" she said.[108]

Their phenomenal experiences seem to be shared to such an extent, that when their mother covers Krista's eyes and shows Tatiana a toy, Krista is able to say that the toy is in fact a pony. Or, when their aunt tickles Tatiana's right foot while Krista's eyes are covered and her mother asks

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[107] Dominus, p. 1.

[108] *Ibid*., p. 2.

Krista to show "where it tickles", Krista reaches to Tatiana's right foot.[109] These girls seem to have two distinct but somewhat merged senses of self, because each of them has a sense of being her, yet each of them also has a sense of being the other one due to the possibility of overlapping experiences. (See Figure 6.1)

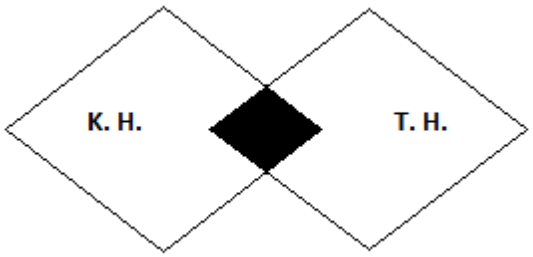

Figure 6.1 Experiences in craniopagus twins: this simple illustration shows how some of the phenomenal experiences of Krista and Tatiana Hogan may overlap. Dark region represents overlapping experiences.

Will they be able to differentiate between the stomach rumblings of each other? In Dr. Cochrane's opinion, the sensory data would branch from the *thalamus*:

> In the girl who is looking at the strobe or a stuffed animal in her crib, the visual input continues on its usual pathways, one of which ends up in the visual cortex. In the case of the other girl, the visual stimulus would reach her *thalamus* via the thalamic bridge, and then travel up her own visual neural circuitry, ending up in the sophisticated processing

[109] Discovery Channel documentary series, "Extreme Bodies", retrieved from http://videos.howstuffworks.com/discovery/32215-extreme-bodies-separating-cranial-conjoined-twins-video.htm.

> centers of her own visual cortex. Now she has seen it, probably milliseconds after her sister has.[110]

At this point, the milliseconds gap between phenomenal experiences is only a speculation, since the brains of the twins have not been scanned as in the case of Lori and George Schappell.

But let's suppose that this speculation is true. We can speak of a number of possibilities: first, these phenomenal experiences, these senses of self could be qualitatively identical. What would that mean exactly? In case of such tactile stimuli as tickling, the twins seem to have qualitatively identical phenomenal experiences: one sister feels what the other feels. Does this mean that they are the same person? With regard to visual stimuli, Dr. Cochrane conducted a simple "light test" (flashing light into the eyes of one sister, while covering the eyes of the other) combined with EEG, which showed activity in both brains. This test was conducted when the girls were 2 years old. Perhaps future fMRI would provide more precise data about the activity in their brains, revealing whether any of their experience are qualitatively, or perhaps even numerically identical, or not identical at all. (See Figure 6.2)

[110] Dominus, pp. 5-6.

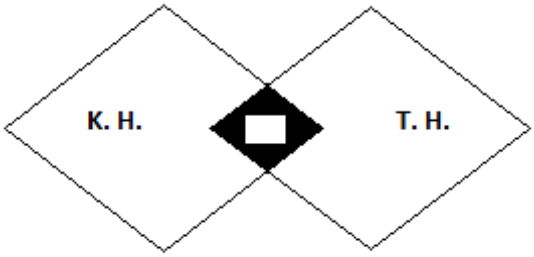

Figure 6.2 Experiences in craniopagus twins: this simple illustration shows how some of the phenomenal experiences of Krista and Tatiana Hogan may be qualitatively identical (dark region). There is a possibility that some of their experiences are numerically identical (rectangular region within overlapping area).

However, documentaries reveal that object recognition might be somewhat coincidental: while correctly naming the pony, the girl who does not see the object calls a cat-like toy "Garfield" and a turkey, "robin". Of course these are "close enough" guesses, but these experiences are hardly qualitatively identical. If they were, Krista wouldn't be answering the question "what does *Tatiana* have in her hand?" from a third–person perspective. Krista would be answering the question from a first-person perspective as if answering a question like "what does *Krista* have in her hand as well?" which is absurd, because she does not have anything in her hands.

The second and more plausible possibility is that the branched phenomenal experience of the twin whose eyes are covered could be merely an "echo", a faint distorted copy of an actual experience of the twin with open eyes, a by-product of neural bridge. In such a case, when Tatiana "whoa!"s at Krista's fast drinking, it is plausible to say that she

experiences that from a third-person perspective, because the experience she has is merely a copy of an actual phenomenal experience her sister has.

Perhaps their "shared" phenomenal experience both separates and merges their senses of selves. Can two things be one and one thing be two?

> "I have two pieces of paper," Krista announced. The girls sat at a small table in the living room, drawing, their faces, as always, angled away from each other. Each had one piece of paper.[111]

From the number of papers in their hands, it is obvious that the singular "I" in this sentence refers to both of them. Susan Dominus, the journalist who conducted the interviews with the family and observed the girls, claims that she had never heard them referring to themselves as "we". Each of the twins reacted and answered when someone called one of them by name. How can we explain Krista's sentence in the above example? The first possibility is that they might see each other as the continuation of each other. Since Tatiana is the "continuation" of Krista, the number of papers in Tatiana's hand should be added to the number of papers in Krista's hand. Hence, two papers. Another possibility could be rather trivial: due to their young age and due to the fact that they are literally stuck with each other, and perhaps due to the absence of a plural form of second-person pronoun ("you") in English language

[111] *Ibid*., p. 4.

(everyone around them refers to them and to others as "you"), they simply do not yet fully understand the fact that they are "plural".

Their general grasp of the world is mostly kinesthetically constrained because of being conjoined. These girls are still growing up, forming their memories, thoughts, beliefs and desires, their senses of self as their cognitive capacities increase. In terms of shared phenomenal experience, right now they can be described as having *partially* autonomous senses of self in cranially conjoined bodies. Unless they are surgically separated, a considerable portion of their phenomenal experiences throughout their lives might overlap and be copied into one another's consciousness. They may have two senses of self that may overlap. Unlike in the cases of split brain, where the sense of self the split brain patient has is nevertheless singular, such "fused" senses of self in the cranially conjoined twins might be truly indeterminate as to being merged or separated.

6.3 The continuity of the sense of self

The continuity of the sense of self can be linked to episodic memory. Let's say that yesterday Alice went to see the Mad Hatter but had some wine instead of tea.[112] Yesterday's Alice is sad and drunk. Today's Alice

[112] If you read the book, it is obvious that she could hardly have any tea at the Mad Hatter's.

has a headache and nausea. Tomorrow's or A-Year- From-Today's Alice does not and might never exist because she could die at any given time, even today. She undergoes changes both physical and psychological, but there is something about Today's Alice that makes her the continuation of Yesterday's Alice. What could that be? The answer seems simple: *she remembers being drunk yesterday*. But what if she couldn't?

Let's suppose that Alice is an alcoholic to such an extent that she develops the Wernicke-Korsakoff syndrome.[113] Eventually, Alice cannot remember several years of her past and is unable to form new episodic memories. She knows who she is, remembers certain events in her life, but the reality, the *Now*, "escapes" her in a way. When you and I learn new information, we incorporate it in our overall sense of self; our new memories are connected with our old memories, forming and shaping a consistent system that is consciously and unconsciously accessible. A Wernicke-Korsakoff patient, however, "can no longer retain new information long enough to alter his total picture of himself".[114]

Alice suffering from the Wernicke-Korsakoff syndrome could be said to have an incomplete self, but her sense of self is yet present. I would like to argue that Alice's sense of self in such a case is also continuous despite the gaps in episodic memory. Some of the Wernicke-Korsakoff patients are unable to tell their age, but their sense of self does

[113] Gardner, pp. 176-219.

[114] *Ibid*., p. 207.

not suffer from such memory glitch. Gardner describes a 45-year old patient who did not know his age:

> "How old are you?" "I was born in 1927." "Which makes you…" "Let's see, Doctor, how I always forget, the year is…"
>
> "The year is what?" "Oh I must be thirty-four, thirty-five, what's the difference…" He grinned sheepishly.
>
> "You'll soon be forty-six, Mr. O'Donnell, the year is 1973."
>
> Mr. O Donnell looked momentarily surprised, started to protest, and said, "Sure, you must be right, Doctor. How silly of me. I'm forty-five, that's right I guess."[115]

What is peculiar in this example is not that Mr. O'Donnell did not know what year it was at the time of the interview, but that for Mr. O'Donnell, he was at a *certain* age. This would mean that his sense of being present in time was intact, however incorrectly he claimed what his age was. He retained his sense of self consolidated in the past, but *for him*, it was the present. The actual *Now* would escape him as soon as his focus is shifted on another task.

If you asked him about his age again, he would follow the same pattern of evasive answers and would be surprised at the answer you provide in the end. The evasiveness of his answers can be explained by his unwillingness to admit the absence of episodic memory required for the answer, so when the patient fails to successfully avoid providing direct answers, he simply uses the finite set of episodic memories he has

[115] *Ibid*., p. 178.

and gives an answer containing the episodic memory that fits the context best. It is not as if he is lying. Basically he tries really hard to answer the question by accessing the available finite set of episodic memories. But I think what this actually means is that without the correct, say, "up to date", sense of being present in time, he would be unable to represent his past and present conscious states and experiences as features of the same person. His confusion in fact is due to his inability to distinguish between his current sense of self and the conscious state he experienced in the past due to the gaps in episodic memory or due to the fact that the set of the episodic memories he has is finite.

A more dramatic case of retrograde and anterograde amnesia[116] was the famous case of Henry Molaison[117] who underwent a bilateral removal of the hippocampus to reduce his epileptic seizures. After the surgery, he retained his memories of the past with the exception of a couple of years prior to the surgery, but was unable to form new memories:

> Except for Dr. Scoville, whom he had known for many years prior to the surgery, he was completely unable to recognize members of the hospital staff; he did not recall and could not learn the way to the bathroom; he did not remember the

[116] Retrograde amnesia is the inability to remember the past. Anterograde amnesia is the inability to remember the present, form new memories, and learn new information.

[117] Until his death in 2008, Henry Molaison was known to the world as "patient H. M.". His brain is currently being studied at The Brain Observatory of the University of California, San Diego and thousands of digitalized slices of the Henry's brain are available for observation online at http://thebrainobservatory.ucsd.edu/hm.

> death of a favorite uncle, although he was reminded of it constantly, and became genuinely upset at each telling.[118]

It seems that information in his short-memory storage was "flushed" instead of being consolidated in the long-term memory. But some of the "flushed" new material stuck. For instance, when he was taught to play a new piece on the piano one day and then asked to play the same piece the next day, Henry claimed he did not know how, but after he was shown the beginning of the piece, he would play it to the end himself. Memories and experiences that are not directly connected to personal history, such as semantic memory (e.g. knowing that the capital of France is Paris) and motor skills are preserved. Playing piano is in a way a motor skill. When I forget the pieces of music sometimes, I trust my fingers to "remember". Henry retained most of his motor skills and was able to learn new ones. He had a clear sense of self to such an extent that he could state explicitly, "I have trouble with my memory." He could not tell his age but knew that he was "older"; when he looked in the mirror, he recognized himself, but he knew that he changed.

As I said before, the continuity of the sense of self is typically associated with episodic memory. The sense of self seems to continue despite the absence of episodic memory. But as Gardner puts it,

> I, for example, think of myself as someone born at a certain time, possessed of certain preferences, skills, and failings,

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[118] Gardner, p. 196.

> having undergone certain experiences in a definite order; in the background are explicit goals, means of achieving them, problems, pleasures, defenses, aspirations, etc. In short, I have constructed a metaphor of myself, one to which I am continuously making additions and revisions, shaping it in response to my immediate environment…[119]

So it is also clear that a sense of self is changing, it is formed and maintained *with* the episodic memories. So what happens in a severe case of the Wernicke-Korsakoff syndrome? Does the formation of sense of self stop? Normally, my current sense of self influences how I recall myself in the past and vice versa. However, Henry's "current"[120] sense of self seems to be distorted by inability to recall even recent events. The continuous integrity of the sense of self enables us to distinguish between our memories of experiences and dreams. But *for Henry*, everything is as normal as it was before, with exception of minor glitches in his memory and knowledge of skills he had no idea he had had before. In a sense, he *continues*.

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[119] *Ibid*., pp. 206-207.

[120] Due to the finite set of episodic memories accessible to Henry because of his retrograde and anterograde amnesia, his series of senses of self is limited to a certain period of time in the past only.

6.4 The unified sense of self

In previous chapters I examined the criteria for personal identity over time, trying to establish which is more plausible. Perhaps the question should be not how one can positively establish that Alice at t_2 is identical with Alice at t_1, but rather how Alice's conscious states provide Alice with a singular, conscious, continuous, changing and unified sense of self?

> What is special about people, about selves, is that what constitutes their identity through time is partially determined by their own conception of themselves, a conception which may vary, perhaps appropriately does vary, from person to person.[121]

Consider the following example: I am sitting in a coffee shop, reading Patrick Süskind's "Das Parfum". I hear the music and the baristas taking the orders, I feel the texture of the book's pages, the softness of the chair and I smell and taste the freshly brewed coffee in my cup. As I read, I imagine what the yellow plums in the hands of the girl from Rue de Marais smell like, imagine the color of her hair and freckles on her chest. I think of the summer of 1984, when I tasted yellow plums for the first time. I return to the story in the book, vaguely noticing a freckled child passing by and wondering where her mother is. All of these experiences have one thing in common: they do not just happen as a sequence of

[121] Nozick, p. 69.

events, on the contrary, they are unified in my consciousness and I have a sense of my self as the "experiencer" at the center.

I appropriate my experiences, whether it is seeing the color of the floor tiles or feeling the foam of the coffee on my upper lip. I think of myself in 1984 and I appropriate the memory of tasting yellow plums. I also control my body when I adjust my chair and control my thoughts by focusing on the book. I have a distinct sense of self which is phenomenally unified. The experience of the taste of coffee is unified with the mental state of remembering eating yellow plums for the first time and of imagining the freckles of the girl from Rue de Marais and the experience of seeing the freckles of the child passing by. If these were disunified, then I would have different senses of self at the same time, each with its own experience, unrelated and disconnected.

In his article, Carruthers proposes a phenomenological model of self that distinguishes between selves as different cognitive capacities. According to him, the sense of ownership is underlain by boundary and agentive selves, which also underlie the sense of agency and the sense of boundedness. However, he also states that "the different senses of self are empirically dissociable. Underlying each of these senses of self is a distinct cognitive capacity—a distinct self".[122] Carruthers expresses a concern that his model may seem to contradict with the idea of the unity of self due to the dissociatedness of the cognitive capacities he bases his

[122] Carruthers, p. 538.

theory on. But he claims that his model is plausible because "whilst the self certainly appears in consciousness as a unified thing, we need not suppose that this means there is a single mechanism underlying the sense of self".[123] However, does his model also contradict the unity of the sense of self? If we had a disunified sense of self with scattered conscious states, we would not be able to make sense of our conscious experience. This isn't the case. It is plausible to say that my sense of self is singular, conscious, unified and presumably changing through time: I have a sense of self now and in 1984, I also clearly have perceptions and memories that correspond to reality and I am capable of decision making and acting upon the decisions I make. Even when a consciousness is gappy, the sense of self is unified and persists through time because it is not the continuity but unity of consciousness that is essential in relation to the sense of self. There are numerous examples of discontinuity of consciousness: blind spot, blackouts, sleep, coma, etc. You take a walk through a park, stumble on a tree branch, fall, hit your head and black out. Then you wake up in a hospital bed. Clearly, there is a gap in your consciousness. Yet you retain your sense of self as *you* feel pain and touch *your* head and feel the bump. As it was mentioned before,

> One of the most striking features of consciousness is its discontinuity — as revealed in the blind spot, and saccadic gaps, to take the simplest examples. The discontinuity of

[123] *Ibid.*, p. 540.

> consciousness is striking because of the apparent continuity of consciousness.[124]

However, is unity of consciousness as apparent as its continuity? In order to be able to answer this question, let's discuss what the unity of consciousness is. First of all, we can speak of representational unity in relation to our conscious states. The content of our perceptions is represented in our consciousness as integrated representations of the reality. I do not only perceive the softness of the paper of the book, I perceive the book, the table on which it is placed, the café at which the table is, etc. My perceptions are bound together in representational unity. They are also phenomenally unified, in a sense that I touch the book *while* I hear the music and I see the letters *while* I touch the book. I have these experiences all at once, in my phenomenal field of consciousness. And the fact that these experiences are all *mine* also enables us to speak of the unity of sense of being *me*.

6.5 The notion of self vs. sense of self

I have already analyzed various thought experiments and reported cases that stand as challenging puzzles for the notions of self and personal continuity. I have examined various approaches to the problem of self and personal continuity, such as the psychological, biological and

[124] Dennett, p. 356.

narrative approaches. Individually, these approaches do not yield sufficient solutions to the puzzles and reported cases and fail to provide a sound account of the notion of self. Even Parfit's advanced psychological approach involving the notion of the strength of psychological connectedness provides less than satisfactory answer. Dennett's narrative approach, introducing the self as the center of narrative gravity seems promising, because he is able to provide an evolutionary account of how self could have evolved in the first place. He proposes that we "spin" a self, like a spider spins its web. In a way, we "construct" a self. Dennett's account also tries to demonstrate that our traditional "all or nothing" notion of self is not plausible. For instance, he examines the case of a DID patient and concludes that unless certain conditions for the emergence of a "fully fledged" self are met, the self can be fractured and incomplete. But even such an approach cannot provide solutions for the puzzling thought experiments. And Dennett simply refuses to deal with such thought experiments:

> My theory is similarly impervious to the claim — which I would not dream of denying — that there could be talking bunny rabbits, spiders who write English messages in their webs, and for that matter, melancholy choo-choo trains. There could be, I suppose, but there aren't — so my theory doesn't have to explain them.[125]

Thomas Metzinger's phenomenological approach is more promising than Dennett's in the sense that Metzinger's theory of Phenomenal Self-

[125] *Ibid*., p. 426.

Model (PSM) and the self as PSM's content is based on neurological findings and attempts at combining psychological, biological and narrative approaches. He offers a process that creates self as phenomenal content:

> First, our brains generate a world-simulation, so perfect that we do not recognize it as an image in our minds. Then, they generate an inner image of ourselves as a whole. This image includes not only our body and our psychological states but also our relationship to the past and the future, as well as to other conscious beings…. By placing the self-model within the world-model, a center is created. That center is what we experience as ourselves, the Ego.[126]

According to Metzinger, the phenomenal self is "that part of our mental self-representation, which is immediately given in subjective experience".[127] But could this account provide a sound solution for the problematic thought experiments and anomalous real-life cases? In Section 5.1 I discussed how such an approach could provide a plausible explanation for the DID patient, Mary. However, the explanation suggested by Metzinger is rather complex and sounds like hardly more than a speculation. Moreover, the PSM approach with regard to the thought experiments not only fails to provide a solution, but might even further complicate the puzzle: how would PSM cope with the Brain Swap, or what would happen to the PSM in cases of Fission or Fusion? Furthermore, it is not clear how the PSM could handle the cases of

[126] Metzinger (2010b), p. 7.

[127] Metzinger (2010a), p. 27.

craniopagus twins, where considerable amount of brain tissue is shared by the twins.

Glen Carruthers' phenomenological model of self also seems promising at first, but his account is designed to explain only the synchronic aspect of the sense of self, while my intention is to account for the diachronic sense of self with a view to solve the puzzling thought experiments and actual cases, where the notion of personal continuity is involved. As I said before, Carruthers' account has the potential to be developed into a different and better account that will enable us to dissolve the notion of self and provide clear approach to the known puzzles. I propose a much less complex and hopefully more realistic approach based on the notion of sense of self that fully recognizes the diachronic aspect of the notion. Our sense of self at any given time consists of various elements: sense of distinction, sense of control, sense of appropriation and sense of presence in time. The sense of self is deeply related to our episodic memory and the unity of our consciousness and thus it is singular, continuous, ever-changing and unified. I explored how synchronic and diachronic senses of self develop in young children, how sense of self changes throughout a person's life and the continuous and unified nature of the sense of self despite the apparent discontinuity of consciousness or gaps in episodic memory. I tried to explain the relation between the sense of self and episodic memory in reported cases of various types of amnesia. For instance, the sense of self is retained even in the severe cases of the Wernicke-

Korsakoff syndrome and patients with both retrograde and anterograde amnesia.

Now I would like to show that when we approach the puzzling thought experiments and actual cases in terms of the notion of sense of self, the question of whether Alice's self continues becomes moot and inconsequential. The approach based on the sense of self provides clarity, is capable of dissolving the puzzles, while the notion of an enduring self complicates and confuses the matter.

Consider the puzzles raised by the various thought experiments we examined in the previous chapters. I already argued that analyzing the puzzles in terms of the sense of self provides more definitive answers. For instance, in the thought experiments regarding Brain Swap/Brain Transplant, where Mr. Brown's brain is placed in Mr. Robinson's body and Mr. Robinson's brain is placed in Mr. Brown's body, we are no longer forced to choose between biological and psychological approaches to personal continuity, and consequently, the puzzle dissolves. The criterion of the sense of self and its elements not only provides a clear picture of what would happen in such a case, but also provides a plausible scenario for the future of Mr. Brown and Mr. Robinson. In the case of Teletransportation, the teletransported Alice retains her sense of self and its elements, whereas in the thought experiment of part replacement, in terms of the sense of self we can say that the emerging person is a clone, being very similar to the original,

but with her own sense of self. And if we replaced Alice's brain with a silicon brain in such a way that "Silicon Brain" Alice has a sense of self, that is all that is relevant and what can and should be inquired.

In the case of the thought experiment Fission, such questions as what happens if Alice^{R} does not survive, whether Alice^{L} become the Alice, or how many Alices were there in the first place, etc. become irrelevant. What actually would happen is this: two distinct persons come into existence, each with their own sense of self, senses of distinction, control, appropriation and being present in time. Both Alice^{R} and Alice^{L} have their own senses of self that are singular, conscious, changing and unified. In the case of split brain patients, the sense of self is clearly singular: "despite the dramatic effects of callosotomy, W.J. and later patients never reported feeling anything less than *whole*".[128]

I analyzed the curious cases of the craniopagus twins in terms of sense of self, trying to provide a clear picture of what happens as the result of their fused brains. To say that in "fusion" cases of the craniopagus twins there are two distinct people with clear senses of self is more plausible than to speculate whether they "share" a continuous unchanging "self". However uncertain the future brain development of Krista and Tatiana Hogan is at the present, the following account for their future is more plausible than a description in terms of two separate

[128] Wolman, p. 262, my emphasis. Patient W.J. was "a former Second World War paratrooper who had started having seizures after a German soldier clocked him in the head with the butt of a rifle". He had his corpus callosum severed in 1962. *Ibid.*, p. 261.

"selves" or a single "self": they each have a *sense of self* that may be overlapping at time t_1 and may be separate at t_2. Their individual senses of self are retained despite the complexity of the sensory data they share due to the neural connection via thalamic bridge.

With regard to the DID case of Mary discussed in previous chapters, Mary retains her sense of self despite the alter "selves". Mary, Sally, Hatey and Peggy have their own senses of self, with their own experiences, memories, plans and beliefs. Another variation of DID is the case of dissociative fugue[129]. If Alice at t', for instance, entered a dissociative fugue state and "changed" into Margaret at t'' for, say, twenty years, Alice would simply disappear for twenty years. They would be two different persons with distinct episodic memories. When the fugue state is over, Alice reappears with no episodic memory of the fugue state. She will retain her sense of self at time t''' without any distortion from Margaret's sense of self at t''. (See Figure 6.3)

[129] Klein, pp. 32-33.

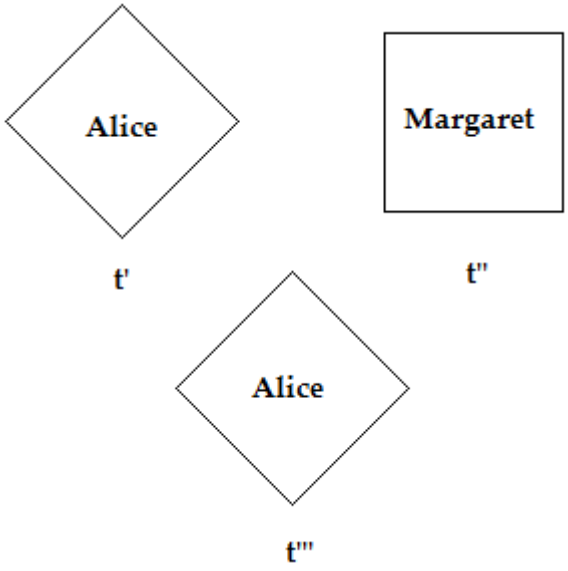

Figure 6.3 Senses of self in DID: this simple illustration shows how Alice's sense of self is distinct from Margaret's sense of self. Time t''' is t'+20 years.

Marvin Minsky states that "our sense of smooth progression from one mental state to another emerges not from the nature of that progression itself, but from the descriptions we use to represent it".[130] Furthermore,

> Whatever happens, where or when, we're prone to wonder who or what's responsible. This leads us to discover explanations that we might not otherwise imagine, and that helps us predict and control not only what happens in the world, but also what happens in our minds. But what if those same tendencies should lead us to imagine things and causes that do not exist? Then we'll invent false gods and superstitions and see their hand in every chance coincidence. Indeed, perhaps that strange word "I" — as used in "I just

[130] Minsky, p. 232.

had a good idea" — reflects the selfsame tendency. If you're compelled to find some cause that causes everything you do — why, then, that something needs a name. You call it "me." I call it "you."[131]

I tried to show that especially in thought experiments and problematic real-life cases, this fiction of self caused confusion and thus should be considered dispensable. The self is a fiction we create; it is the name we conveniently give to the whole series of senses of self we have. A schematic representation of this series is in Figure 6.4.

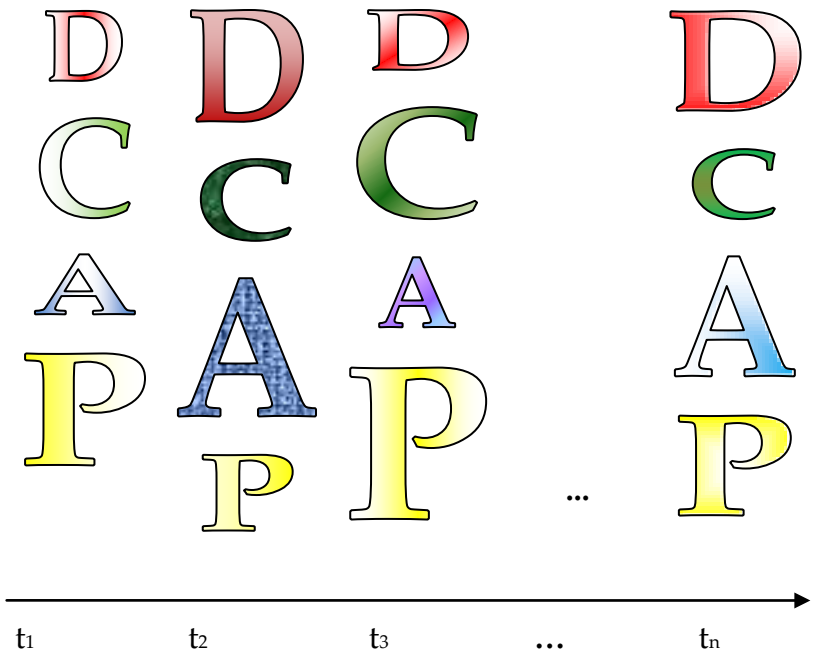

Figure 6.4 A schematic representation of the series of senses of self through time. 'D's stand for senses of distinction, 'C's stand for senses of control, 'A's stand for senses of appropriation and 'P's stand for senses of presence in time. The variety of size and pattern symbolizes the variety in content. These shapes represent each sense of self someone has at particular times t_1, t_2, t_3, … , t_n.

[131] *Ibid*., p. 232.

The variety in shapes (size and pattern) in the illustration shown in the figure above symbolizes the variety in the content of each element. These senses of self are conscious at t1, t2, t3, and etc. but in between, there could be gaps such as sleep, blackout, etc. I have a sense of self now, and I had a sense of self in 1984, and a sense of self three months ago, when I read "Das Parfum" in a coffee shop. The content of each sense of self changes with my experiences; my senses of self exhibit the features of being continuous, unified, singular and conscious. Even if my brain was transplanted into another body, I would retain a sense of self; if my limbs were replaced with robotic limbs, I could appropriate them as part of the content of my sense of self, just as I appropriate my memories and experiences, and mentally travel into my past to remember the taste of yellow plums for the first time or into my future, planning my wedding. With this kind of approach, whether I have an unchanging enduring self is beside the point and relieves us from an unnecessary ontological commitment.

CHAPTER 7

CONCLUSIONS

I have examined the puzzling thought experiments of Teletransportation, Brain Swap, Fission, Split Brain, etc. and looked into the possibility of analyzing them in terms of such traditional approaches to personal identity problem as psychological, biological and narrative accounts. I explored how each approach attempts to meet the criteria of identity through time and how the concept of self and personal continuity in terms of these approaches plays a role in these thought experiments. After a careful examination it became clear that the presupposition of an unchanging and enduring self creates more problems than solutions. It seems that the puzzles were unsolvable by the criteria of psychological continuity or biological integrity. The narrative approach of Daniel Dennett which rejects self as an ongoing substance, or a soul, or a homunculus in a head, postulates that the self is

the center of narrative gravity, which might enable us to survive in any kind of situation, even death, as long as the narrative is there. As long as there is gravity, there is a center of that gravity, however elusive to perception. Such abstractive approach, according to Dennett, provides simplification and explanatory power to such an extent that he does not feel the need to solve the puzzles of the thought experiments.

Thomas Metzinger's phenomenological approach (PSM) provided an interesting alternative to conventional understandings of self and consciousness. Like Dennett's account, Metzinger's approach stems from an evolutionary point of view, stating that our brains evolved in such a peculiar way that we construct the Phenomenal Self-Model that enables us to unify the world around us and ourselves as organisms in it. This model is transparent in the sense that we do not perceive the mechanism in the background: when we get hurt, we feel pain directly, without perceiving the firing of C-fibers in our brain. According to Metzinger, the PSM could be an evolutionary tool that enables us to manage our behavior and anticipate behavior of others, thus increasing our chances of survival. So far so good, but when it comes to the puzzles of thought experiments and real-life cases, say, callosotomy or DID, it is doubtful that the model would be able to provide a solution that is not overly complex and is convincing.

So I decided to focus on the synchronic and diachronic senses of self, relying on the evidence from the experiments conducted by Daniel

J. Povinelli, involving the reactions of 2-, 3- and 4-year-old children to delayed videos, photographs of themselves and mirror reflections. The importance of this experiment can be explained as follows: if the experiment was conducted with mirrors, the subjects would try to remove the sticker because of their synchronic sense of self. However, their trying to remove the sticker after observing the delayed image of themselves suggested that those children had a temporally extended sense of self. I believe that what this experiment showed was the clear distinction between the synchronic and diachronic senses of self.

These experiments were used by Glen Carruthers, who proposed another phenomenological model of self and whose *initial* categorization of the senses of self inspired me to propose my four-fold classification of the elements of sense of self itself, which are shown in a schematic fashion in Figure 6.4: sense of distinction, sense of control, sense of appropriation and sense of presence in time. After defining and explaining these senses, I investigated the development of these senses by examining another series of experiments conducted by Daniel J. Povinelli. I believe that these experiments stand as evidence for the gradual development of the elements of the sense of self, as well as for the variations in the content of the sense of self.

In order to provide a clear picture of what role these elements play in the development of the sense of self, I focused on the gullibility of these senses, first discussing the experiment called "rubber hand

illusion", conducted in 1998 by M. Botvinick and J. Cohen. These scientists tricked the brains of the subjects to perceive the rubber hand in front of them as the hands of the subjects. The subjects perceived the rubber hand as their own, appropriating a completely distinct and foreign object to their "selves". The experiments of out-of-body-experience show that such appropriation is possible for the whole body: it is possible to appropriate the tactile impressions we have to the perceived "false" body, identifying with it, having a sense of being in that body.

In Chapter 6, after reviewing the thought experiments Brain Swap, Fission and Split Brain in terms of the notion of sense of self, it became clear that approaching these thought experiments in terms of the sense of self provided definite answers. So, the abandonment of the notion of self as presupposition for the thought experiment led to dissolution of the puzzles, rendering the questions about personal continuity moot. In order to further explore the sense of self as a key to the puzzles, I also examined the real-life cases of the cranially conjoined twins Lori and George Schappell and Krista and Tatiana Hogan. In terms of the notions of self and personal continuity, they are the cases of so called Fusion, where persons are said to be fused psychologically and physically. I reviewed these cases in terms of sense of self, supporting my argument with neurological findings.

To provide a clearer picture of my approach, I sketched a crude schematic representation of the whole series of senses of self, which aimed at showing the features of the sense of self and the variety of content in its elements and accounted for the diachronic aspect of the sense of self. I believe that the inquiry I conducted showed that it is more plausible to approach the thought experiments and real-life cases in terms of sense of self, without employing the notion of self at all.

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APPENDIX A: CURRICULUM VITAE

PERSONAL INFORMATION

Surname, Name: Sugorakova, Daria

Nationality: Russian (Russian Federation)

Date and Place of Birth: 12 December 1978, Russian Federation

Marital Status: Single

Phone: +90 312 210 62 50

Fax: +90 312 210 79 74

Email: edreft@yandex.ru

EDUCATION

Degree	Institution	Year of Graduation
M. A.	METU Philosophy	2007
B. Sc	METU Philosophy	2004

FOREIGN LANGUAGES

Advanced English, Advanced Turkish

PUBLICATIONS

1. (with Sol, A.) "Gelecek Kuşaklar Sorununa Evrimci Bir Yaklaşım", Felsefe Dünyası 52, 2010, pp. 150-163.
2. "The Dragon: Meme, Culture and Evolution", Philosophy Now 72, 2009, pp. 22-25.
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ACADEMIC INTERESTS

Analytical philosophy, applied philosophy, bioethics, consciousness, developmental psychology, engineering ethics, environmental ethics, ethics, medical ethics, neuroscience, philosophy of biology, philosophy of mind, philosophy of science fiction

ACTIVITIES

1. METU Graduate School of Social Sciences, 1st PhD Students Workshop, 23 – 25 May 2012, METU/Ankara – Paper presentation and participation.
2. METU Department of Philosophy 25th Anniversary Events, Philosophy Days: "Anlam" Congress, 17 – 19 December 2008, METU/Ankara - Organization Committee.
3. METU Department of Philosophy 25th Anniversary Events, METU Department of Philosophy Alumni and Members Meeting, 31 May – 1 June 2008, METU/Ankara - Organization Committee.
4. Turkish Red Crescent Regional Cooperation Program, Tuberculosis Workshop, 31 March – 11 April 2008, TRC/Ankara - Interpreting and translation.
5. International Workshop on Sustainable Living, 4 – 10 October 2007, METU/Ankara - Certified participation.
6. II. National Applied Ethics Congress, 18 – 20 October 2006, METU/Ankara - Paper presentation, certified participation.

APPENDIX B: TURKISH SUMMARY

Lewis Carroll'un *Alice Harikalar Diyarında* kitabını okuduğumuzda, Alice'in bedeni değişiklik geçirdiğinde onun kişi olarak özdeşliğine ilişkin değişim sorunu ile karşılaşmıştık. Özdeşlik kargaşası, sadece ani beden büyümesi veya küçülmesi değil, Alice'in etrafında bulunan yaratıkların da Alice'i, Alice'in de hem içebakışsal olarak hem de çevresi bakımından kendisini tanımlama başarısızlığından kaynaklanıyordu. Karakterin karşılaştığı bu sorun, zamanda kişi özdeşliği sorunu olarak bilinmektedir. Felsefi olarak ifade edecek olursak, böylesi durumlarda Alice'in hafızası, eylemleri, düşünceleri, onun fiziksel ve psikolojik devamlılığı gibi kriterler ciddi şekilde sorgulanmaktadır. Bugünkü Alice, dünkü Alice ile aynı kişi midir?

1. Kendini Açıkla!

İçebakış yoluyla Alice, t_1 anında upelkuchen gördüğünün, t_2 anında onu yediğinin, t_3 anında tadının aldığının ve t_4 anında bedeninin büyüdüğünün farkına varır. Bu izlenimlerin altında, bizim "benlik" diye adlandırdığımız herhangi bir ontolojik varlık söz konusu değildir. Zaman içerisinde değişmeyen, bütünleşik bir "benlik" değil, ayrı ve birbirinden farklı olan algıların ardışıklığı söz konusudur. Hume bunu, nedensellik ilişkisini açıklamasına benzer bir şekilde, hepimizde ortak olan sağduyusal bir inanç olarak açıklar. Nedensellik söz konusu

olduğunda, nedensel bağlaşımların tekrarlayan algıları aracılığıyla biz, nedensel zorunluluğu inancını geliştirir ve belirli olaylar arasında kopmaz bir bağ olduğu fikrini oluştururuz. Benzer şekilde zihinsel aktivitemizin ardışık izlenimlerini gözden geçirdiğimizde, duvardaki bir resim gibi tekil, değişmeyen bir benlik fikri oluştururuz, halbuki gerçekte olan şey, sadece birbiriyle ilişkili bir takım deneyimlerin demetini algılamamızdır.

Zamanda aynı kişi olmanın ne demek olduğunu inceleyelim. Günlük hayatta insanlara "kişi" deriz ve bazen "O artık eskiden olduğu gibi bir kişi değil" gibi cümleler kurarken, "kişi" ile "kişilik" kavramlarını karıştırırız. Diğer yandan "kişi" aslında düşünceleri, deneyimleri ve diğer özellikleri ve nitelikleri olan, ahlaki sorumluluğu olan insandır bizim için. Kişi özdeşliği sorununa farklı yaklaşımları temsil eden birçok kriter vardır.

2. Düşünce Deneyleri: Psikolojik Yaklaşım, Biyolojik Yaklaşım ve İtirazlar

"Theseus'un Gemisi" olarak bilinen düşünce deneyi, kişi özdeşliği ve kişi devamlılığına ilişkin ilginç bir bilmecedir. Aynı zamanda kişi özdeşliğine ilişkin biyolojik yaklaşım ile ilgilidir. Temel olarak biyolojik yaklaşım, kişi özdeşliğinin psikolojik olarak değil, biyolojik olarak değerlendirilmesi gerektiğini vurgular. Neden olarak, öz bilinç ve benzeri özelliklerin ancak belirli gelişim aşamasında ortaya çıkması

olarak gösterilir. Örneğin Olson (1999), cenindeki beynin ancak 5 aylıkken işlevsel olmaya başladığını, dolayısıyla psikolojik yaklaşıma göre 5 aylıktan küçük ceninin psikolojik kapasitesinin olmaması sebebiyle aslında var olmadığını söyler.

Silikon Beyin Yenileme, Beyin Nakli, Beyin Değiş Tokuşu ve Bölünme (Fission) gibi düşünce deneyleri de kişi özdeşliği sorununa ilişkin bilmeceleri ele almaktadır. Silikon Beyin Yenileme düşünce deneyi, Alice'in beyninin silikon bir beyin ile değiştirildiğini var sayar. Bu tür bir silikon beynin, Alice'i "psikolojik" olarak oluşturan tüm veriyi içerdiği de var sayılır: hatıraları, inançları, niyetleri, vs. Psikolojik yaklaşıma göre Alice'in zaman içindeki varlığı, zorunlu ve yeterli olarak onun akli durumunun devamlılığına bağlıdır. Ancak biyolojik yaklaşıma göre bir kişinin zaman içinde sağkalımı, o kişinin biyolojik devamlılığına bağlıdır. Bu durumda silikon bir beyin Alice'in biyolojik devamı olmadığından, silikon beyinli kişinin *Alice olmadığı* kanısına varılır. Silikon beyinli kişinin tüm akli durumlarının biyolojik beyinli Alice'in akli durumlarına özdeş olsa bile, söz konusu bedenin bir kısmının biyolojik olmayan bir materyal ile değiştirilmiş olması gerçeği, biyolojik devamlılık kriterine aykırı olur.

Beyin Nakli düşünce deneyinde ise, durum daha da karmaşık hale gelmektedir. Örneğin eğer Alice fiziksel olarak bitkisel hayatta iken beyni ve dolayısıyla tüm psikolojik kapasiteleri ve akli durumları başka bir bedene nakledilirse, biyolojik yaklaşıma göre Alice'in bedeni hayatta

tutulduğu sürece Alice o bedende var olmaya devam edebilir, beynin nakledildiği kişi ise, Alice'in sadece bir kopyası olur. Alice'in bedeni öldüğünde de geriye kalan sadece Alice'in deneyimlerine, isteklerine inançlarına vs. sahip bu silik kopya olur. Gerçekten de durum öyle midir?

Sydney Shoemaker, Beyin Değiş Tokuşu düşünce deneyini ele alıp analiz etmektedir. Bu düşünce deneyinde Robinson ve Brown adında iki kişinin beyinleri değiş tokuş edilir, ardından da Brown'un bedenine (ve Robinson'un beynine) sahip olan kişi ölür. Kolay adlandırma açısından hayatta kalan kişiye Brownson denir. Biyolojik kriter açısından Brown'un hayatta kalıp kalmayacağı konusunda istediğimiz kadar tartışabiliriz, ancak yalın gerçek şudur ki, hayatta kalıp kalmadığını bize sadece Brownson söyleyebilir.

Psikolojik ve biyolojik yaklaşımın karşılaştığı bir başka sorun da, Bölünme (Fission) olarak bilinen düşünce deneyindeki bilmecelerdir. Bu düşünce deneyinde Alice ve onun iki üçüz kız kardeşi korkunç bir kaza geçirir ve bu kaza sonucunda Alice'in bedeni ölümcül bir şekilde yaralanmıştır ancak işlevsel olarak eşit yarımküreleri olan beyni sağlam kalmıştır. Kız kardeşlerinin bedenleri çok az yaralanmış, ancak beyinleri onarılamaz bir şekilde zarar görmüştür. Alice'in yarımkürelerinin her biri, kardeşlerine nakledilir. Bu operasyonun bariz sonucu, iki kişinin ortaya çıkmasıdır. Uyandıklarında her biri, Alice'in hatıralarına, hayallerine, niyetlerine sahiptir ve kendini Alice olarak tanımlamaktadır.

Her ikisi de, psikolojik olarak Alice'in devamıdır ve üçüz oldukları için de tıpkı Alice gibi görünmektedirler. Bir şey iki şey olabilir mi? İki (hatta orijinal Alice'i de sayarsak, üç) Alice mi var? Ortaya çıkan bu kişilere, $Alice^L$ ve $Alice^R$ diyelim. Hem $Alice^L$ hem $Alice^R$, kendisinin Alice olduğunu iddia eder. Peki, gerçekten öyle midir? Alice'e ne oldu? İki kişiye mi bölündü? Ya da belki en başta iki kişiden oluşuyordu ve bu kaza sayesinde sonunda ayrıldılar, ya da Alice her iki bedende de var olmaya devam ediyordur? Ya da daha kötüsü, bu bedenlerin birindedir, diğerinde ise bambaşka bir kişi vardır? Eğer durum öyle ise, hangisi hangisidir? Alice kimdir ve nerededir? Alice'in beyinin bedeninden çıkarıldığı anda artık var olmadığını söylemek makuldür. O andan sonra var olan kişiler $Alice^L$ ve $Alice^R$ olur. Ancak her ikisi de Alice olduklarını iddia eder ve hem psikolojik hem biyolojik yaklaşıma göre ikisinin arasında ayrım yapmamızın bir yolu yoktur.

Parfit (1984), bu düşünce deneyi konusunda farklı bir yorum yapar. Alice, hem $Alice^L$ hem $Alice^R$ olarak sağ kalamayacağına göre Alice ve diğerleri arasında bir özdeşlik ilişkisi yoktur. Dolayısıyla Alice transplantasyon sonucunda sağ kalamamıştır. Tabi bu geleneksel bir ölüm olarak yorumlanmamalı: Alice'in kişiliği, hatıraları, düşünceleri, istekleri, niyetleri ve inançları hem $Alice^L$ hem $Alice^R$ içinde devam etmektedir. Yani *bir şekilde* Alice hayatta kalmıştır. Parfit'e göre psikolojik devamlılık korunduğu sürece özdeşlik ilişkisi bir kişinin sağkalımında çok önemli bir rol oynamamaktadır. Hatta ona göre burada asıl önemli olan şey, *sağkalımın* kendisidir. Dolayısıyla Parfit'e

göre burada sorulması gereken soru, Alice'in Alice^{L}'ye mı yoksa Alice^{R}'ye mi özdeş olduğu sorusu değil, hayatta kalıp kalmadığı sorusudur.

3. Benlik: Ya Hep ya Hiç?

Öznesi olmayan bir bilinç durumunu hayal edebilir miyiz? Benlik olmadan, bilincin olamayacağını söylemek makul görünüyor. Birden fazla benlik olması durumunda, birden fazla bilinç ortaya çıkar mı? Humphrey ve Dennett (1989) "tipik" bir Dissosyatif Kimlik Bozukluğu (Dissociative Identity Disorder, bundan böyle DID olarak anılacaktır) vakasını betimlerken "tek bir kişinin birden fazla farklı benliği olması mümkün mü?" sorusunu sorar. Bu sorunun cevabı kolay değildir. Tipik bir DID vakasında hasta, bir "dominant" ve çok sayıda "öteki" benlik sergiler ve bunlardan her biri, farklı davranış sergileyip, moda, konuşma tarzı, hatta cinsiyet farkları göstermektedir.

Birden fazla benlik olasılığına ilişkin soruya bir çeşit cevap verebilmek adına yazarlar, iki türden "benlik" arasında ayrım yapar: "özgü benlik" ve "uydurma benlik". Birinci türden benlik, Alice ve diğer insanların "benlik" olarak ele aldığı, Alice'in düşüncelerini düşünen, inançlarına inanan benliktir. Dindar olanlar buna "ruh" diyebilir. İkinci türden benlik ise, sizin ve benim ve çok sayıdaki psikanalist ve felsefecinin aklında olan şeydir.

Bu yaklaşıma göre benlikler gerçek bir şey değildir; yalnızca açıklayıcı gücü olan kurmaca şeylerdir. Humphrey ve Dennett, "benliği" "anlatı ağırlık merkezi" olarak tanımlar. Dennett'in "heterofenomenolojik metodu" bu anlatı ağırlık merkezini, yalınlaştırma sağlama ve açıklayıcı gücü arttırma amacıyla sunar, tıpkı fizikçilerin fiziksel nesnelerin ağırlık merkezlerini, o nesneleri daha iyi anlatmak için kullandıkları gibi. Anlatı benlik burada aslında bir soyutlamadır, herhangi bir gerçek değere veya ontolojik varlığa atıf yapmaz.

"Benlik" fikri içimizde çok derin bir yer etmiştir. Ancak kafamı yarıp açarsanız, gerçekte "evde kimsenin olmadığını" görürsünüz. Öyleyse "benlik" veya "kişi" nedir, düşünen, hisseden, hayal kuran "ben" nedir? Evrimsel açıdan kendim, bedenim, beynim ve elbette diğer her şey arasında ayrım yapmaya meyilliyim. Kendim hakkında, zaman içinde devam eden bir varlık olarak düşünmeye meyilliyim. Daha önce, Humphrey ve Dennett tarafından betimlenen tipik DID vakasını tartışmıştım. Bu tür vakalarda, benliğin aslında bütünsel ve tekil olmak zorunda olmayabileceği görülmektedir. Benlikler, parçalanmış, eksik olabilmektedir. Bu tür vakaları daha ayrıntılı bir şekilde inceleyerek ve Bölünmüş Beyin (Split Brain) olarak bilinen düşünce deneyine ilişkin daha derin bir anlayış sağlayarak Dennett, bu düşünce deneyinin anlamsızlığını vurgulamaya çalışır. Adil olmak gerekirse, Bölünmüş Beyin tam olarak bir düşünce deneyi değildir. 1960'lardan beri birçok epilepsi hastası, komisürotomi olarak bilinen, iki beyin yarımküresi arasındaki *corpus callosum* bağlantısının kesilmesi yoluyla

rahatlatılmıştır. Bu tür vakaların düşünce deneyi olan tarafı, böylesi bir operasyon sonrası iki benliğin ortaya çıkıp çıkmadığı tartışmasını içerir. Yarımküreler arasındaki bağlantı, dolaylı olarak korunmaktadır, ama düşünce deneyinin ana fikri şudur: beyin yarımkürelerinin işlevlerinin lateralizasyonu o kadar bariz bir şekilde ortaya çıkar ki, iki fraklı kişinin ortaya çıktığı izlenimi oluşur.

Dennett, Bölünmüş Beyin düşünce deneyinin duygusallığını reddeder ve ampirik bulguların, tam yetkin çok sayıda benliğin ortaya çıktığını söylemek için yetersiz olduğunu ifade eder. 1974 yılındaki makalesinde Nagel'ın "Yarasa olmak nasıl bir şeydir?" sorusuna benzer bir şekilde Dennett, "Bölünmüş Beyin hastasının sağ yarımküresi benliği olmak nasıl bir şeydir?" sorusunu sorar. Verdiği cevap moral bozucudur. Sağ yarımküredeki benlik dilsizdir, sağ burun deliği hariç vücudun sağ tarafına tamamen yabancıdır.

4. Benliğin Fenomenolojik Modelleri

Metzinger ve Carruthers

Başlı başına benlik bir illüzyon ise, Alice'in rüyalarını gören kimdir? Deneyimlerimizi ve algılarımızı içebakışsal olarak gözden geçirdiğimizde gerçekte olan şey nedir? Alice'in hatıralarını, *Alice'in hatıraları* yapan şey nedir? Thomas Metzinger, Fenomenal Benlik Modeli (Phenomenal Self Model, bundan sonra PSM olarak anılacaktır) ve Fenomenal Ego kavramlarını ileri sürerek bu sorulara cevap vermeye

çalışır. PSM, beyin tarafından oluşturulur ve "beyin tarafından etkinleştirilen, organizmanın bir bütün olarak bilinçli modelidir". Bir kişinin bedeni, duyguları, düşünceleri ve diğer akli durumlarına ilişkin benimsenmesini, sahipliğini sağlayan şeydir. Metzinger'e göre Fenomenal Ego ya da fenomenal benlik, PSM'nin *içeriğidir*, bir başka deyişle Alice'in fiziksel duyumları, hisleri, hatıraları, algıları, inançları, vs. Metzinger'e göre fenomenal benlik, zaman içinde değişmeyen, devam eden bir tür varlık değildir. Aksine, "sadece şu anki PSM'inizin içeriğidir."

Metzinger'in yaklaşımında ilginç olan şey, bu fenomenal benliğin, Fenomenal Ego'nun PSM'in şeffaflığı sayesinde var olması (var olma kelimesini, yalnızca daha iyi bir kelim olmadığı için kullanıyorum). "Şeffaflık" derken Metzinger temel olarak şunu kasteder: "bilginin bize vasıtasıyla ulaştığı medyumun farkında olmuyoruz…. Yanıp sönen nöronları görmüyoruz, bildiğimiz tek şey bunların bize yansıttıklarıdır." Basitçe, biri sizi çimdiklediğinde, acıyı oluşturan şey, C-Fiber'lerin yanması değildir; acı, bilincimize yansıtılmaktadır. Ancak mekanizmanın kendisi şeffaftır: biri sizi çimdiklediğinde, beyniniz bir gerçeklik oluşturur ve acı duygusu deneyimlersiniz, arkasındaki mekanizmanın yansıtılması olmadan.

Metzinger'e göre fenomenal benlik veya "benlik olmanın bilinçli deneyimi, beyninizdeki PSM'in büyük bir kısmının şeffaf olmasından dolayı ortaya çıkar." PSM, beyinlerimizde oluşturulan bir

simülasyondur, dolayısıyla "gerçekliğin kendisi değil, geçekliğin imajıdır" – "benliğimiz" aracılığıyla "dünyayı" görmemize olanak sağlar. Şeffaflığın olmadığı veya hatalı olduğu durumlarda ise (belki de şizofreni vakalarında olduğu gibi) simülasyonun bütününde çatlaklar oluşur ve bir içerik olarak fenomenal benlik çözünür ve bizi içeriksiz ve öznesel olarak habersiz hale getirir.

Benliğe ilişkin bir başka fenomenolojik model de, Glenn Carruthers tarafından ortaya atılmıştır. Carruthers, zihnimizin oluşturduğu fenomenolojinin altında, belirli bilişsel kapasiteler kümesinin yattığını iddia eder. Yazar, Thomas Metzinger'in fenomenolojik yaklaşımına atıfta bulunarak başlar ancak Metzinger'in başlı başına benlik diye bir şey olmadığına dair fikrini reddeder. İddiasını desteklemek için Carruthers, "benlik duyusu" kavramını kullanır ve benliğin, "çeşitli benlik duyularının altında yatan bilişsel kapasiteler kümesi" olduğunu söyler. Amacı, bir benlik modeli oluşturmak üzere bu bilişsel kapasiteleri modellemektir ve bunun için çeşitli deneylerin örneklerini kullanır. Carruthers'a göre, sınırlılık duyusu, etkenlik duyusu, sahiplik duyusu ve zamanda uzamlılık duyusu gibi çeşitli benli duyuları vardır ve her biri bilişsel kapasite olan bu duyuların altında, senkronik benlik (belirli bir andaki bir benlik) ile diyakronik benlik (zamanda uzamlı benlik) yatmaktadır. Bu benlik duyularının ilk üç tanesi, senkronik benlik ile, sonuncusu ise diyakronik benlik ile ilgilidir.

Benlik duyusunun gelişimi ve bileşenleri

Rochat'a göre öz farkındalığın altı seviyesi vardır: Şaşkınlık, Ayırt Etme, Konumlandırma, Tanımlama, Kalıcı Kılma ve Öz Bilinç. İlk dört seviye, senkronik benlik duyusu, son ikisi de diyakronik benlik duyusu ile ilişkilendirilebilir. En ilginç bulduğum seviyeler, kişinin hem şimdiki, hem de geçmişte ve gelecekteki benliği ile özdeşleştiği "Tanımlama" (3) ve "Kalıcı Kılma" (4) seviyeleridir. Bu öz farkındalık seviyeleri, en iyi şekilde Daniel J. Povinelli'nin yürüttüğü deneylerde gösterilmektedir. Povinelli'nin ana araştırma konusu şempanzelerdeki zamansal uzamlı benlik olsa da Povinelli, insan çocuklarındaki zamansal uzamlı benliği de araştırmaya karar vermiştir. Tezimin amaçları için Povinelli'nin deneylerini tartışırken benliğin senkronik ve diyakronik duyuları arasındaki farkı gözeterek ilerleyeceğim. İlk olarak Povinelli, aynalar yerine çocukların geciktirilmiş video görüntülerini kullanarak, çocukların kendilerini tanıma yetilerini test etmeyi amaçlamıştır.

Bu deneyin önemi, şu şekilde açıklanabilir: eğer deney, sadece aynalar ile gerçekleştirilmiş olsaydı denekler, kafalarındaki yapışkan kağıdı benliğin senkronik duyusu yüzünden çıkarmaya çalışırdı. Ancak kendilerinin geciktirilmiş video görüntülerini izledikten sonra kafalarındaki yapışkan kağıdı çıkarmaya çalışmaları için, benliğin zamansal uzamlı, diyakronik duyuları olması gerekir.

Benlik duyusunun diyakronik yönünü de içeren daha dinamik bir model oluşturabilmek için, Carruthers tarafından uygulanan

kategorizasyonu gözden geçiriyorum ve benlik duyusunun bileşenlerini bu gözden geçirmeye göre yeniden tanımlıyorum. Bundan sonra "sınırlılık duyusu" yerine, "ayrı olma duyusu" kavramını kullanacağım çünkü böylesi bir kavram sadece bedenin, zihnin ve çevrenin sınırlarını değil, aynı zamanda hem çevre ile hem kendi beden ve zihnimiz ile diğer kişilerin bedeni ve zihni arasındaki ayrımı vurgular. Ayrım sadece Alice ve dünyanın geri kalanı arasında değil, Alice ve diğer kişiler arasındaki ayrım olup, düşünce deneyleri ve bilinen olağandışı gerçek vakalardaki bilmeceleri de ele almamızı sağlamaktadır. "Etkenlik duyusu" yerine "kontrol duyusu" kavramını kullanacağım çünkü Carruthers'in kategorizasyonunda öngörülen etkenlik, bir benliğin varlığını da var sayar ki ben bu kavramın çözünmesinin bir yolunu arıyorum. "Kontrol duysu" kavramını kullanarak aynı zamanda Carruthers'in "etken benlik" gibi bir kavrama ve "istemli/istemsiz eylem" gibi ayrımlara olan gereksiz ontolojik yüklenmeden de kaçınmış oluyorum. Carruthers'in başlangıçtaki kategorizasyonunda kullandığı "sahiplik duyusu" kavramına gelince, daha geniş kapsamı olduğuna inandığım "benimseme duyusu" kavramını kullanmayı tercih ediyorum: örneğin düşüncülerimize veya isteklerimize sahibiz ancak sahtı anıları veya üçüncü kişilerin şahitliklerini *benimseyebiliriz*. Carruthers'e göre "sahiplik duyusu, sınır benliği ve etken benlik ile ortaya çıkar". Bu durumda hem etken benlik, hem sınır benliği, sahiplik duyusunun altında yatar. Bunlardan herhangi birinin ortadan kalkması durumunda, sahiplik duyusunun kaybı meydana gelir. Ancak düşünce sokma

delüzyonu veya yabancı kontrol delüzyonu gibi bazı patolojik vakalarda insanın sahiplik duyusu olmayabiliyor ama yine de yabancı uzuv veya düşünceye ilişkin benimseme duyusu mevcut olabilir. Böylelikle "benimseme duyusu" kavramı, Carruthers'in kullandığı "sahiplik duyusu" kavramından daha dinamik ve etkili bir kavramdır. Son olarak "zamanda uzamlılık duyusu" yerine "zamanda varlık duyusu" kavramını kullanacağım çünkü bu kavram, benlik duyusu kavramının hem senkronik hem diyakronik yönünü yansıtmaktadır. Carruthers'in başlangıçtaki kategorizasyonunun ve benlik duyularının bağımsız ve bağlantısız birer bilişsel kapasite olduğunu söyleyen çıkarımının aksine bu yeniden tanımladığım benlik duyuları hem birbiriyle daha bağlantılıdır hem daha dinamiktir, dolayısıyla da düşünce deneyleri ve olağandışı gerçek vakalara ilişkin benlik kavramının çözündürme amacım için de daha uygundur.

Bu duyular, benlik duyusu oluşturur. Peki bu benlik duyusu nasıl bir şeydir? Guruldayan karnın Margaret'in değil de, kendi karnı olduğunu Alice nasıl bilebiliyor? Şu açıktır ki, Alice'in benliği Margaret'in benliği değildir. Onun fenomenal doğası, aşağıdaki gibi ifade edilebilir:

Alice'in benliği onun benliğidir ve Margaret'in benliği değildir çünkü Alice, kendisi olduğunu ve Margaret olmadığını hisseder.

Enteresan bir şekilde benli duyusu kolayca zedelenebilir ve son derece hassastır. Kişinin hafızası zedelendiğinde veya kişi psikolojik ya

da fiziksel zarar gördüğünde benlik duyusunun bileşenleri parçalanabilir. Dahası, benlik duyusu "kandırılabilir". 1998 yılında Botvinick ve Cohen tarafından gerçekleştirilen, "Lastik-el illüzyonu" olarak bilinen deney, bunun nasıl mümkün olduğunu göstermektedir. Bu deney sonucunda denekler, temassal illüzyon yaşayıp, sol ellerine ve gördükleri lastik ele yapılan fırça darbelerini karıştırdılar. Basitçe söylemek gerekirse, Botvinick ve Cohen, deneklerin beyinlerini, önlerinde gördükleri lastik eli kendi elleriymiş gibi görmeleri için kandırdı. Denekler, tamamen ayrı ve yabancı bir nesneyi, kendi vücutlarının bir parçasıymış gibi algıladılar ve benliklerine benimsediler. Bu tür bir benimseme sadece parçalarla değil, vücudun tamamıyla da mümkündür.

5. Benlik Duyusu ve Bilinç: Bir An Varsın, Bir An Yoksun

Düşünce Deneylerinin Yeniden Değerlendirilmesi

Önceki bölümlerde, çeşitli düşünce deneylerini inceledik. Örneğin Alice'in moleküllerinin farklı moleküllerle değiştirilmesine ilişkin fikirler yürüttük. Ancak daha ilginç bir girişim, Alice'in benlik duyusunun değişip değişmediğini görmek olur. Bu nasıl mümkün olabilir? Daha önce ele aldığımız, Bay Brown'un Bay Robinson'un bedeninde uyandığı, Beyin Değiş Tokuşu düşünce deneyine bir daha bakalım.

Meseleyi biraz daha karmaşık hale getirebiliriz. Ameliyat sonrasında Brown, hastane yatağında, bedeninin herhangi bir yeri görülmeyecek şekilde çenesine kadar tamamen örtülü, başı ve yüzü sadece gözleri açık olacak şekilde bandajlı olarak yatıyor olsun. Hastane odasının tavanında ayna olduğunu varsayalım. Herkeste olduğu gibi, Brown'un da kendisinin nasıl göründüğüne dair bir zihinsel temsili vardır, kendisinin içsel bir imajı. Gözlerini açtığında şaşkınlık içerisindedir ve aynanın ve aynadaki yansımanın farkında değildir. Aynayı fark ettiğinde, aynada yatakta uzanan, tamamen örtülmüş, başı ve yüzü bandajlı birisinin yansımasını da fark eder. Etrafına bakmaya çalıştığında aynadaki yansımanın, gerçeklikle örtüştüğünü anlar. Kolunu battaniyenin altında oynatmaya kalktığında veya gözünü kırptığında aynadaki kişinin de kolunu oynatmaya çalıştığını, gözünü kırptığını fark eder. Kendisini gerçekte tanımamış olmasına rağmen (çünkü bedensel ve yüzsel özellikler görünmez durumdadır) Brown, aynadaki yansıma ile kendini özdeşleştirir.

Sürekli ayrı olma, kontrol, benimseme ve zamanda varlık duyuları sayesinde benlik duyusunu korur. Şimdi de Brown'un aynalı tavanı olmayan sıradan bir hastane odasına taşıyalım ve bandajları çıkaralım, ancak yataktan çıkmasına izin vermeyelim. Artık bedenine kollarına, göğsüne ve bacaklarına yatay pozisyonda bakabilme şansı vardır. Brown, bir şeylerin değiştiğini fark eder. Şu anda aynada bir yansıma görse, bu yansımayı kendisi ile özdeşleştirmeyecektir, sadece *bir* yansıma görecektir. Sahip olduğu zihinsel temsil sayesinde yansıması

konusunda belirli bir beklentisi vardır, dolayısıyla beklentisi gerçeklikle örtüşmediğinde ilk tepkisi, gerçekliği reddedip içsel imajına güvenmek olur. Ancak tıpkı bir beden-dışı-deneyim deneyinde olduğu gibi, hemşire koluna iğne sapladığında acı duyması veya kaşınan bacağını kaşıdığında kaşıntının azalması gibi durumlar sayesinde Brown zamanla kendisini bu yeni bedene "lokalize" eder – bu yeni bedeni benimser, başka bir deyişle, yeni bedende var olan benlik duyusu oluşur.

Daha önce, Alice ve iki üçüz kız kardeşinin korkunç bir kaza geçirip, Alice'in bedeninin yok olduğu ve işlevsel olarak eşit beyin yarımkürelerinin kardeşlerinin zarar görmemiş bedenlerine nakledildiği, Bölünme (Fission) olarak bilinen düşünce deneyini tartışmıştık. Böylesi bir durumda iki ayrı kişi ortaya çıkar, her birinin kendi benlik duyusu ve ayrı olma, kontrol, benimseme ve zamanda varlık duyuları olur. Hem Alice^{R}'ın hem Alice^{L}'ın kendi içlerinde fenomenal olarak bütünleşik birer ayrı benlik duyusu vardır.

Birbirine geçen benlik duyuları: kafadan birleşik ikizler

Kraniopagus ikizler, hem kafalarından hem de beyinlerinden birleşik olarak doğan kişilerdir.Bu tür vakalar son derece nadir vakalardır; ayırma operasyonundan sonra bazıları ölmüş, bazıları başarılı bir şekilde ayrılmış, bazıları ise birleşik olarak yaşamaya devam etmektedir (kimisi gönüllü olarak, kimisi sağlık tehlikesi yüzünden zorunlu olarak). Tezimin amaçları için iki ayrı kraniopagus ikizler vakasını ele alacağım:

Lori ve George Schappell (1961 doğumlu ikizler) ve Krista ve Tatiana Hogan (2006 doğumlu ikizler).

Paylaştıkları beyin dokusunun oranından (%30) ve ilerlemiş yaşlarından dolayı Lori ve George isteseler bile cerrahi olarak ayrılamaz. Kraniopagus ikizlerini küçük yaşta, beyinleri hala sinir dağılımını ve kan akışını yeniden düzenleyebildiği çağda ayırmak daha güvenlidir. Ayrıca çocuklar, ameliyat şokuna erişkinlerden daha dayanıklıdır. Ancak Krista ve Tatiana Hogan vakasında cerrahi ayırma sadece geniş çapta kemik ve deri nakli ile ciddi damar cerrahisi gerektirmekle kalmıyor, ciddi bir beyin hasarına da yol açma ihtimali söz konusudur. Krista ve Tatiana Hogan'ın vakası kraniopagus ikizleri vakaları arasında emsalsizdir çünkü kızlar, talamus denilen ve beynin çeşitli bölgelerine verileri iletmekte olup bilinçli ve bilinçsiz durumları kontrol eden sinirsel bir köprü paylaşmaktadır.

Kızların fenomenal deneyimleri öylesine bir ölçüde paylaşıyor görünüyor ki, annesi Krista'nın gözlerini kapatıp Tatiana'ya bir oyuncak gösterdiğinde Krista, oyuncağın ne olduğunu söyleyebiliyor. Dahası, Krista'nın gözleri kapalı iken teyzesi Tatiana'nın sağ ayağını gıdıkladığında annesi "neresinin gıdıklandığını" göstermesini istediğinde Krista, Tatiana'nın sağ ayağına uzanıyor. Bu kızların farklı ancak bir şekilde de birbirine geçmiş benlik duyuları varmış gibi görünüyor, çünkü her biri kendi benlik duyusuna sahip ama örtüşen

deneyimler olasılığından dolayı diğeri olma duyusuna da sahip gibi görünüyor.

Dünyayı genel algılama biçimleri, birleşik olmalarından dolayı çoğunlukla kinestetik olarak sınırlandırılmıştır. Bu kızlar hala büyüme çağında; anıları, inançları, istekleri, benlik duyuları bilişsel kapasiteleri arttıkça gelişmektedir. Paylaşılan fenomenal deneyim açısından şu anda kafadan birleşik bedenlerde *kısmi* olarak otonom benlik duyularına sahip kişiler olarak tanımlanabilirler. Cerrahi olarak ayrılmadıkları sürece fenomenal deneyimlerinin büyük bir kısmı hayatları boyunca örtüşebilir ve birbirlerinin bilinçlerine kopyalanabilir. Örtüşen ama ayrı iki benlik duyuları olabilir. Bölünmüş beyin vakalarındaki tekil benlik duyusuna sahip hastaların aksine bu tür "kaynaşmış" benlik duyuların söz konusu olduğu kraniopagus ikizler vakalarında ayrı mı yoksa birleşik mi oldukları gerçekten de belirsiz olabilir.

Benlik duyusunun devamlılığı

Alice'in, Wernicke-Korsakoff sendromuna yakalanacak kadar alkolik biri olduğunu varsayalım. Öyle bir nokta gelir ki Alice, geçmişine dair birkaç yılı hatırlamaz ve yeni eylemsel bellek oluşturamaz haldedir. Kim olduğunu biliyor, hayatındaki birçok olayı hatırlıyordur ancak gerçeklik, *Şimdi*, ondan bir şekilde "kaçmıştır". Siz ve ben yeni bilgi edindiğimizde bu bilgileri, benlik duyumuza dâhil ederiz; yeni anılarımız, eski anılarımızla birleşerek bilinçli ve bilinçsiz olarak erişilebilir tutarlı bir sistem oluşturur ve şekillendirir. Bir Wernicke-Korsakoff hastası ise

"yeni bilgileri, kendisine ilişkin total resmi değiştirecek kadar uzun süre koruyamıyor".

Son derece çarpıcı ve bir o kadar da meşhur olan retrograd ve anterograd amnezi vakası, epilepsi nöbetlerini azaltmak için iki taraflı hipokampus çıkarması operasyonu geçiren Henry Molaison vakasıdır. Ameliyat sonrasında Henry'nin, ameliyat öncesi bir-iki yıl hariç tüm geçmiş anıları korunmuştur, ancak hiç yeni anı oluşturamamıştı.

Ağır bir Wernicke-Korsakoff sendromu vakasında neler olur? Benlik duyusunun oluşumu durur mu? Normalde güncel benlik duyum, kendimi geçmişte ne şekilde hatırladığımı etkilemektedir. Tersi ilişki de geçerlidir. Ancak Henry'nin "güncel" benlik duyusu, en son yaşadıklarını bile anımsamamasından dolayı bozulmuş görünmektedir. Benlik duyusunun sürekli bütünlüğü, deneyim anıları ile rüyalarımız arasındaki farkı görmemize olanak verir. Ancak *Henry için*, her şey eskiden olduğu gibidir, hafızasındaki birkaç sorun ve daha önce bildiğinin farkında olmadığı yeni becerilerin bilgisi hariç. Bir anlamda Henry, *devam eder*.

Benliğin bütünleşik duyusu

Önceki bölümlerde, zaman içinde kişi özdeşliği kriterlerini inceleyip, hangisinin en uygun olabileceğini belirlemeye çalıştım. Belki sorulması gereken soru, t_2 anındaki Alice'in t_1 anındaki Alice ile özdeş olup olmadığı nasıl kesin olarak belirlenir sorusu değil, Alice'in bilinçli

durumlarının Alice'e tekil, sürekli, değişen ve bütünleşik bir benlik duyusunu nasıl sağladığı sorusudur?

Carruthers'in, farklı bilişsel kapasiteler olarak benlikler arasında ayrım yapan fenomenolojik bir benlik modeli oluşturduğunu daha önce tartışmıştık. Carruthers'e göre sahiplik duyusu, sınır benliği ve etken benlik ile desteklenmektedir ve bunlar da, sınırlılık duyusu ve etkenlik duyusu altında yatarlar. Ancak yazar, farklı benlik duyularının ampirik olarak ilişkisiz olduğunu, her bir benlik duyusunun altında ayrı bir bilişsel kapasitenin, ayrı bir benliğin yattığını söyler. Bunları savunurken modelinin, kuramını dayandırdığı bilişsel kapasitelerin ilişkisizliğinden dolayı benliğin bütünlüğü fikrine aykırı olabileceğine dair endişesini dile getirir. Ancak savunmasını, benliğin bilinçte bütünleşik bir şey olarak görünse de, benlik duyusunun altında tek bir mekanizmanın yattığı anlamını çıkarmamamız gerektiğini söyleyerek yapar. Peki modeli, benlik duyusunun bütünlüğü fikrine de aykırı mıdır? Dağılmış bilinç durumları ile bütünleşik olmayan bir benlik duyumuz olsaydı, bilinçli deneyimimizi anlamlandıramazdık. Böyle bir şey söz konusu değil. Benlik duyumun tekil, bilinçli ve bütünleşiktir ve zaman içinde değişmektedir: şu anda ve 1984 yılında benlik duyum vardır, gerçekliğe tekabül eden algılarım ve anılarım vardır ve karar verme yetim ile kararlarım doğrultusunda eyleme geçme yetim de vardır. Bilinç boşluklu olsa dahi, benli duyusu bütünleşiktir ve zaman içinde devam eder çünkü benlik duyusu söz konusu olduğunda önemli olan şey, bilincin devamlılığı değil, bütünlülüğüdür.

Benlik kavramına karşı benlik duyusu yaklaşımı

Benlik ve kişi devamlılığı kavramları için zorlu bilmeceler olarak bilinen çeşitli düşünce deneylerini ve rapor edilmiş özel vakaları analiz ettim. Psikolojik, biyolojik ve anlatı yaklaşımı gibi benlik ve kişi devamlılığına ilişkin farklı yaklaşımları inceledim. Bireysel olarak bu yaklaşımlar bilmecelere yeterli çözümler sunmuyor ve benlik kavramı için elverişli bir açıklama da sağlamıyorlar. Parfit'in psikolojik bağlantılılık gücünü içeren ileri psikolojik yaklaşımı bile, tatmin edici bir cevap vermiyor. Dennett'in, benliği anlatı ağırlık merkezi olarak sunan anlatı yaklaşımı umut verici görünmesinin sebebi, evrimsel açıdan benliğin nasıl gelişmiş olabileceğine dair bir açıklama sunuyor olmasıdır. Dennett'e göre bir benlik "öreriz", bir örümceğin ağını ördüğü gibi; benliği "inşa ederiz". Dennett'in yaklaşımı aynı zamanda bizim benlik konusunda "ya hep ya hiç" tavrımızın da makul olmadığını göstermektedir. Örneğin bir DID vakasını inceleyerek, "tam yetkili" bir benliğin oluşması için belirli koşulların olmaması durumunda benliğin parçalanmış, eksik olabileceğini söyler. Ancak bu yaklaşım da, düşünce deneylerinin bilmecelerine çözüm getirmemektedir. Dennett ise bu tür düşünce deneylerini ele almayı bile uygun bulmadığını belirtir.

Thomas Metzinger'in fenomenolojik yaklaşımı, Dennett'in yaklaşımından daha umut verici görünmektedir çünkü Metzinger'in benliğin PSM içeriği olduğunu söyleyen kuramı, nörolojik bulgulara dayanmaktadır ve psikolojik, biyolojik ve anlatı yaklaşımlarını birleştirmeye girişmektedir. Peki bu yaklaşım, sorunlu düşünce

deneylerine ve gerçek vakalara ilişkin bilmeceler için makul bir çözüm sunabilir mi? Maalesef DID vakası için sunulan çözüm önerisi karmaşıktır ve bir spekülasyondan öteye geçememektedir. Dahası bu PSM yaklaşımı düşünce deneylerine çözüm getirmemekle kalmayıp, bilmeceleri daha da zor hale getirebilir: PSM, Beyin Değiş Tokuşu düşünce deneyini nasıl ele alacak, veya Kaynaşım (Fusion) ya da Bölünme (Fission) düşünce deneylerinde PSM'e ne olacak? Ayrıca, PSM yaklaşımının, beyin dokusunun paylaşıldığı kraniopagus ikizlerinin vakalarını nasıl ele alacağı da açık değildir.

Glenn Carruthers'in benliğe ilişkin fenomenolojik modeli de başta umut verici gibi görünse de, bu model, sadece benliğin senkronik yönünü açıklamak için tasarlanmıştır. Halbuki benim amacım, kişi devamlılığının ele alındığı düşünce deneylerine ve bilinen olağandışı gerçek vakalara ilişkin benlin duyusunun diyakronik yönü için bir açıklama sağlamaktır. Carruthers'in yaklaşımı, benlik kavramını çözündürecek ve bilinen bilmeceler için açık bir cevap verebilecek daha farklı ve daha iyi bir yaklaşıma geliştirilme potansiyeline sahiptir. Karmaşık olmayan, daha yalın ve belki de daha gerçekçi, benlik duyusuna dayanan ve benlik duyusunun diyakronik yönünü de tanıyan bir yaklaşım öne sürüyorum. Herhangi bir andaki benlik duyularımız, çeşitli bileşenlerden oluşur: ayrı olma duyusu, kontrol duyusu, benimseme duyusu ve zamanda varlık duyusu. Benlik duyusu, eylemsel belleğimiz ve bilincimizi bütünlüğü ile yakından ilişkilidir; tekildir, devam eder, bilinçlidir, değişir ve bütünleşiktir. Küçük çocuklarda

benliğin senkronik ve diyakronik duyularının nasıl geliştiğini, kişinin hayatı içerisinde benlik duyusunun nasıl değiştiğini ve bilinçteki bariz boşluklara veya eylemsel bellekteki hasarlara rağmen benlik duyusunun nasıl devam ettiğini göstermeye çalıştım. Eylemsel bellek ile benlik duyusu arasındaki ilişkiyi, çeşitli amnezi vakalarını tartışarak gösterdim. Örneğin en ağır Wernicke-Korsakoff sendromu vakalarında ve retrograd ve anterograd amnezi hastalarında bile benlik duyusunun korunabilmektedir.

Bilmece gibi düşünce deneylerini ve gerçek vakaları, benlik duyusu kavramına dayanarak ele aldığımızda bir kişinin benliğinin devam edip etmediği sorusu gereksiz ve önemsiz hale gelir. Sürekli bir benlik kavramına dayanmak meseleyi karmaşıklaştırırken benlik duyusuna dayanan bir yaklaşım, açıklık sağlamakla beraber kişi devamlılığına ilişkin bilmecelerin çözündürülmesine de olanak verir. Sonuç olarak, özellikle düşünce deneylerinde ve sorunlu gerçek vakalarda benlik kurgusu karmaşaya yol açtığından, vazgeçilebilir sayılmalıdır. Benlik, yarattığımız bir uydurmadır, benlik duyuları serilerine rahatlık için verdiğimiz bir isimdir. Yaklaşımımı daha net bir şekilde gösterebilmek için benlik duyusunun özelliklerini ve bileşenlerinin içerik çeşitliliğini göstermeye amaçlayan ve benlik duyusunun diyakronik yönünün hesabını vermeye çalışan, benlik duyuları serilerinin şematik açıklamasının taslağını çizdim. Yürüttüğüm bu araştırmanın, düşünce deneylerini ve gerçek vakaları ele alırken benlik kavramına hiç başvurmadan, benlik duyusu açısından yaklaşmanın daha uygun olacağını gösterdiğine inanıyorum.

APPENDIX C: TEZ FOTOKOPİ İZİN FORMU

ENSTİTÜ

Fen Bilimleri Enstitüsü ☐

Sosyal Bilimler Enstitüsü ☐

Uygulamalı Matematik Enstitüsü ☐

Enformatik Enstitüsü ☐

Deniz Bilimleri Enstitüsü ☐

YAZARIN

Soyadı: Sugorakova

Adı: Daria

Bölümü: Felsefe

TEZİN ADI : An Attempt at Dissolution of the Notion of Self

TEZİN TÜRÜ : Yüksek Lisans ☐ Doktora ☐

1. Tezimin tamamından kaynak gösterilmek şartıyla fotokopi alınabilir. ☐
2. Tezimin içindekiler sayfası, özet, indeks sayfalarından ve/veya bir bölümünden kaynak gösterilmek şartıyla fotokopi alınabilir. ☐
3. Tezimden bir (1) yıl süreyle fotokopi alınamaz. ☐

TEZİN KÜTÜPHANEYE TESLİM TARİHİ: