Anamnesis

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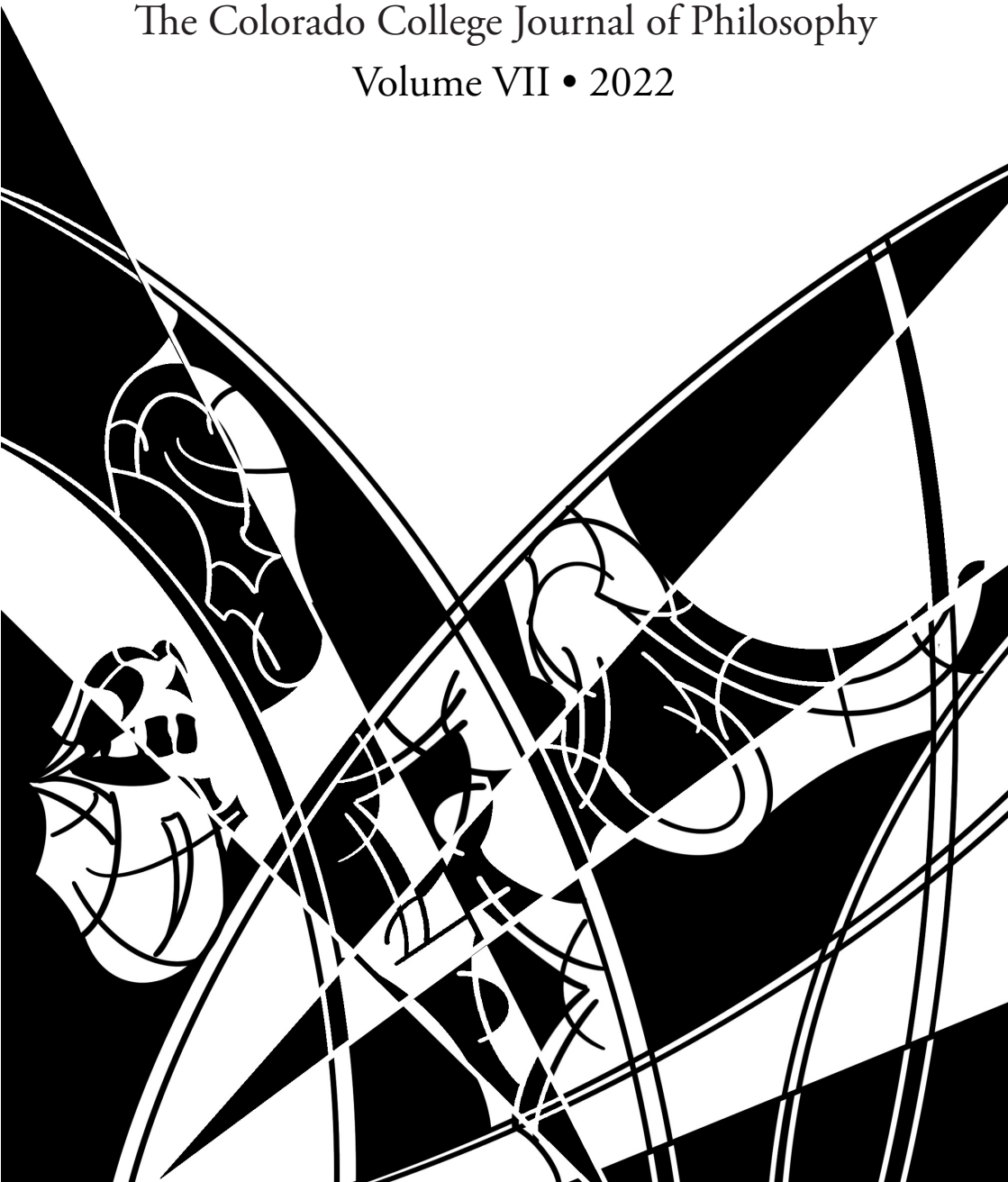

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Mission Statement & Ackowledgements

Anamnesis is the student-edited philosophy journal of Colorado College. The journal publishes philosophical undergraduate essays from colleges and universities worldwide. Colorado College students founded the journal in order to give their peers a taste of what the discipline can be at its best. In line with this goal, we aim to publish clearly written, elegantly argued essays. We also strive to publish essays that tackle the most interesting, difficult, and pressing issues in both philosophy and our lives.

We would like to thank Cutler Publications and the Colorado College Philosophy Department for making the journal possible this year. Special thanks to Karen West, Lorea Zabaleta and Jon Lamson for their support.

Letter from the Editors

In keeping with tradition, this year we sent out a call for papers with no particular theme in mind. We have chosen four papers that we hope will rouse our readers and inspire curiosity and critical reflection. Returning to campus after an isolating year, we are so grateful that we have had this chance to collaborate with fellow philosophers and create the 7th edition of *Anamnesis*. It is our wish, from the editors and editorial team, that this edition serves as a catalyst for campus-wide conversation — that we can revitalize the sense of communal life and discussion that makes *Anamnesis* possible. With abundant thanks to our writers and editorial staff, it's our pleasure to welcome you to this year's edition of *Anamnesis*.

Anamnesis begins by engaging us with essential discourse on how to appropriately recognize an individual's autonomy in cases of dementia. Tyler Ranellone of the University of Pittsburgh challenges us to consider the neurological implications of the earlier versus end-of-life decisions of Dementia patients. The second essay in *Anamnesis*, written by Daniel Teplow of Colorado College, brings together the wisdom of the ancient Greeks and the insights of psychoanalytic thinkers to explore the possibility of a vital human life. Following Daniel's work, Igor Kojadinovic of the University of Central Florida takes an idiosyncratic approach towards the classic debate on free will. By exploring neuroscience and phenomenology, he challenges traditional approaches towards the question of free will, suggesting that the neural networks that precede human actions offer us a more nuanced perspective on conscious intent. The final essay is written by Jeanne Porges of Depaul University. This piece uncovers the mystical interactions with seemingly conscious beings that people under the influence of DMT experience. This neurological approach suggests that the stimulation of the temporoparietal junction in the brain during DMT experiences may play a critical role in the alteration of one's own-body perception, leading to a shadow-like representation of an individual's own self. We hope you enjoy these essays as much as we have, and we thank you for reading *Anamnesis*!

Advance Directives: Autonomy of the Competent

By **Tyler Ranellone**
University of Pittsburgh

Dementia is a major neurocognitive disorder characterized by deficits in memory, attention, and mental clarity. Because the part of the brain associated with the consolidation and retrieval of memory is diseased, many people who suffer from dementia lose memory of their early life and become incapable of forming new memories.Typically, these sequelae, which may stem from the development of Alzheimer's, are burdensome enough to interfere with daily functioning. In this essay, I will be focusing on the late stages of dementia in which patients seem to have distinct personalities from their pre-dementia period. This may look like people having simpler interests or behaving differently. Such is the case when dementia patients exhibit increased restlessness and aggression regardless of their temperament prior to the disease. Once a person reaches this stage of disease, it seems unclear whether they are still capable of making important medical decisions for themselves. This is where advance directives become important.

A person with late stage dementia may use an advance directive to preemptively determine the course of their treatment or who will make decisions for them once they become incompetent. However, what if these instructions contradict the person's beliefs once they become incompetent? How much should we value the rights to autonomy of those who are no longer competent over when they were competent? A prominent perspective by Ronald Dworkin states that we must adhere to the incompetent patients' previous values. This view rests on the premise that the capacity for autonomy is essential to one's personhood. Consequently, once a patient loses this capacity, they are no longer an intact person and do not share the same rights as their earlier selves. The period of time when they were competent takes precedence which includes any values or interests that may be stated in an advance directive. Another important perspective to consider, in direct opposition to Dworkin and formulated by Rebecca Dresser posits that the values of the patient in the late stages of dementia should be given priority over their previous beliefs. This is because the patient has undergone a psychological transformation from one identity to another and with it, their interests may have shifted entirely. In Dresser's view, following an advance directive once one has had an identity transformation would violate the rights of the patient's current self. Accordingly, the decisions of a person should reflect their preferences at the current point in time. A final perspective I would like to consider is by Agnieszka Jaworska. Similar to Dresser, she prioritizes the current values of those with dementia but for a different reason: She believes those with dementia still have the capacity for autonomy. Contra to Dworkin, Jaworska predicates one's autonomy with the ability to value, which she says is not lost in dementia.

These three perspectives offer the opportunity to evaluate the rights of those that are no longer competent, based on their capacity for autonomy, and consequently the authority that advance directives hold. First, two hypothetical scenarios of patients that have become incompetent will be discussed. This will allow for the defense of the argument morally requiring adherence to advance directives over current interests based on the loss of personhood associated with dementia as well as for respect of autonomy previously held by these patients.

Next, a potential rebuttal will be proposed mirroring the arguments of Dresser and Jaworska that attempt to redefine the capacity for autonomy.[1] Finally, a solution to this argument will be delivered that will allow me to expand upon Dworkin's conception of competence.

Once a patient's life has substantially changed due to dementia to the point where current interests differ from those held prior, it may not be clear which set of interests better reflect the values of that person. If the interests that more closely align with the patient's values can be determined, they should be prioritized when deciding course of care. Further, differentiating between the personhood of someone before and during a life with dementia is crucial to understanding why decisions made when competent should be honored. Consider the following hypothetical scenario:

> A fully competent patient who, in anticipation of developing Alzheimer's disease, espouses a strong conviction, documented in an advance directive, that she does not wish to have her life prolonged in a demented state. She deeply identifies with her intellect, thus she views life with dementia as terribly degrading. But once she develops dementia, her identification with her intellect drops out as a concern, so she loses the corresponding desire not to prolong her life. In the meantime, she is still capable of simple enjoyments – she likes gardening and listening to music – and perhaps she can even carry on meaningful human relationships.[2]

I will call this person Anisa. In this case, Anisa clearly identifies her values at a time before dementia. At this point we may agree that as a competent adult, she has the right to make important decisions that define her life regardless of if they are deemed correct or foolish by others. This is a basic tenet of human rights. After developing dementia, she replaces her love of intellect with new interests. Put simply, Anisa is living a seemingly happy life in her demented state but according to her past preferences, she wants to be allowed to die. Should we take seriously her new interests as someone living with dementia or follow her prior requests? Consider this second scenario:

> Mr. O'Connor was a deeply religious man for whom thoughts of taking his own life or of withholding lifesaving measures for whatever reason were completely unacceptable. In his seventies he developed Alzheimer's disease. He lost his ability to do many of the things he used to enjoy, such as playing the piano, and soon he could no longer take care of himself. With the loss of capacity for complex reasoning, most of his religious beliefs gradually faded away. Then came a terrible emotional blow: the death of his wife. He has now begun saying that he does not want to live.[3]

Mr. O'Connor begins as a competent adult whose religiously grounded values include the prioritization of life. For the sake of my evaluation, we may consider that Mr. O'Connor outlined his deeply held values in an advance directive. The difference between Anisa and Mr. O'Connor is that as Mr. O'Connor progresses into dementia, he begins living an unhappy life, leading him to express new preferences. This begs the same question: should we give precedence to his earlier or current self?

To understand why the former self's interests should be given authority over the current self, the transformation that occurs in a person when changing from pre-dementia to dementia must be delineated. Both Anisa and Mr. O'Connor begin as competent adults. Competence, as defined by Dworkin, is "the ability to act out of genuine preference or character or conviction or a sense of self".[4] One must not only possess a clear sense of their values, commitments, course of life, and desires, but must also be able to act upon them. From this capacity, we may derive the right to autonomy. This means that competent adults may shape their lives in any way they please so long as it is in line with their own character. However, as one progresses into the late stages of dementia, they lose this right to autonomy. Once they pass a certain threshold, defined as the inability to be competent as described earlier, dementia patients are no longer able to make important decisions for themselves. In these cases, the authority must be handed over to the former self. A person in this state of incompetence is unable to make choices that reflect a coherent sense of self. This includes having fragmented and contradictory views, being unable to fulfill long- and short-term goals, as well as living an unreasonably inconsistent life such that a dementia patient has no clear purpose for what they aim to achieve. It may even be said that the dementia patient no longer has personhood as they've lost their right to autonomy and no longer reflect a clear sense of self. Relating this back to the scenarios, when Anisa becomes incompetent, her values shrink in complexity. She goes from having values of immaterial ideas to the simple joyance of gardening. However, this latter activity does not hold precedence over the prior values as it only reflects her current desires and something that can easily change from one day to the next. It is a merely superficial interest that she has. It is not core to Anisa's character and something which she uses to guide her life such as the value of intellect. Similarly, when Mr. O'Connor becomes incompetent, he loses his deeply held religious values that were once crucial to forming his beliefs about taking his own life or letting himself die. Mr. O'Connor is now incapable of caring for himself and unable to fulfill the activities that he used to enjoy such as playing piano. Since this goes against his capacity to perform autonomy as described, Mr. O'Connor may no longer be able to make important medical decisions about himself. For both cases, the advance directives put forth prior to dementia must be followed as neither Anisa nor Mr. O'Connor may be considered competent people. It is therefore necessary to look for the last time they were competent and capable of practicing autonomy when looking for guidance in medical decisions for the patients. In doing so we would be protecting the autonomy of the patients.

The valence of the prior choices in relation to the current state of affairs should not be particularly important when deciding whether to follow an advance directive. Jennifer Hawkins describes this as "the value neutrality constraint". Due to the vast amount of variation amongst individual values, there must be room for people to make decisions for themselves even if they may be

unusual. This is supposing that the person is competent and able to follow a process for making choices. This process entails having values that one must prioritize and then uses to make a choice that is consistent with their internal beliefs.[5] Of course, in an incompetent person, they are generally unaware of their core beliefs and what defines their life as a whole which renders them unable to make this sort of decision. So, in the aforementioned scenarios, we must follow the advance directives that end a seemingly good life and prolong a seemingly bad one for Anisa and Mr. O'Connor, respectively, even if it may seem troubling to do so.

One must also be aware of why autonomy must be respected. To understand this, it may help to look at the importance of autonomy in another setting. In Dr. Atul Gawande's novel Being Mortal, he gives his account of a geriatric patient named Lou who suffers from Parkinson's disease and has problems with his memory.[6] His daughter, along with a hired aid, take on the responsibility of caring for Lou as he moves into his daughter's house. As Lou's situation deteriorates, it becomes increasingly difficult for them to care for Lou. However, Lou hates the idea of having to live in a nursing home so they settle on an assisted living facility. Dr. Gawande describes this living situation as such:

> *They had private apartments with a full bath, kitchen, and a front door that locked … They were allowed to have pets and to choose their own carpeting and furniture. They were given control over temperature settings, food, who came into their home and when … if they wanted not to take certain medications that made them feel groggy.*[7]

Lou and the other patients living in this facility were given a relatively large amount of autonomy over their own lives in spite of the physical and mental decline they were dealing with. Being able to control their living situation and even the treatment they received empowered the occupants as they were able to exercise their own competence in making decisions. Studies done by the Oregon government (which funded the assisted living facility), found that residents had maintained their health while also seeing improvements in satisfaction as well as physical and cognitive functioning. Evidently, respecting the autonomy of these residents seemed to be more important than the treatment they received. Despite many residents taking less medication and even engaging in more "risky" behaviors, such as smoking, people became happier without having to sacrifice their health. These beneficial effects are not seen in people who are forced to adhere to a regimen of medications, no matter how many combinations of different prescriptions are used. We may apply this to the discussion at hand about advance directives. We may assume that those who take the time and effort to develop an advance directive certainly care about their own choices as they play a role in their lives. Therefore, it may be said that patients with advance directives value their autonomy and would prefer that their interests enumerated during a state of competence be given authority, even if they contradict them when in a state of nonautonomous dementia.

Dissenters of this view may choose to attack the basis for autonomy previously discussed. These objections

might fall in line with the views of Dresser and Jaworska who believe the contemporary interests of those with dementia should be given authority over their past selves. According to Dresser's view, a dementia patient's prior preferences should not be taken into account as they have undergone an "identity transformation." For Dresser, the patient's consciousness and capacity to desire mean that their current feelings should be respected. Jaworaska's view holds that those with dementia are like any other people in that their values change over time - thus, their current preferences should be prioritized. Rather than place the basis for autonomy on the ability to evaluate one's convictions based on one's life as a whole, Jaworska states that autonomy rights should stem from one's capacity to value. She then goes on to say:

> The main difference between mere *desiring and valuing is this: One way to deal with one's non-value-laden desires is to try to eliminate them - to try to bring it about that one does not feel them … A person could contemplate being free of a mere desire with a sense of relief, but one would always view the possibility of not valuing something one currently values as an impoverishment, loss, or mistake.*[8]

Jaworska is distinguishing between desires and values. She argues that when you value something, if that thing were to be taken away from you, you would not be indifferent to it and would instead be upset about its departure. On the other hand, you may be neutral or have weak feelings if a desire were to be taken from you. This can be used to argue that patients with dementia retain the ability to value and are thus capable of autonomy. Consider a dementia patient struggling with several cognitive issues. When this person attempts to speak coherently or tries to recall a memory, they understand why they are having difficulty doing so. They express anger and sadness over their inability to function properly. The fact that this person recognizes and is disturbed by what is happening to them reveals their capacity to value that which they do not have. This ability to value thus does not require knowledge of one's whole life. So, for Jaworkka, as long as the patient is able to express values, –however simplified from the former self – they should be given autonomy over their decisions. This suggests that they know what is best for their current selves.

Jaworska's account falls short in its overemphasis of the current values of dementia patients. Consider a deeply religious individual with strong convictions against the use of medications. This person espouses these beliefs in an advance directive. Years later, they develop dementia and forget many of their beliefs. A friend tells this person that their life used to be very exciting and that they have many great memories. This individual is upset by this and wants their old life back. According to Jaworska, this individual is showing capacity to value since they regret the loss of memory thereby giving them agency over their own decisions. In this hypothetical situation, the individual chooses to take a theoretical pill that reverses their neurological deterioration to a point in which they are able to recall many of their past beliefs. Remembering their aversion to medication, they are horrified at what they have just done. They become incredibly upset by the vio-

lation of religious doctrine they have performed. Consequently, they end up living a very unhappy life as they no longer have a strong commitment to religion and the sense of faith it provides.

In this imaginary situation, a patient was allowed to make a medical decision for themselves based on their supposedly "new" values. The decision based off this value was clearly not reflective of the person's true character and ended up causing harm. Although I agree with Jaworska's definition of values, I do not believe it applies in the case of dementia patients. Despite being able to recognize an apparent lack in their lives, dementia patients cannot substantiate any claims on what their core values are such that they are in line with their previous selves. This idea about competence mentioned by Dworkin earlier overrides Jaworska's argument, as well as Dresser's in a similar fashion. The supposed identity transformation she discusses is no more than identity loss. The values the late-stage dementia patients possess are merely superficial as they only reflect how they are thinking in the present. They are unable to integrate experiences and convictions from their previous selves in order to make completely informed decisions. Additionally, the values they have are likely to change day-to-day as the patient cannot remember what they valued the previous day in order to stay consistent. This lack of stability adds to the argument against Jaworska's claim that capacity to value should determine the capacity for autonomy.

Once a person reaches late-stage dementia, it may not always be clear how important decisions should be made for them. Dworkin argues that values held prior to dementia should be given precedence over the current self as this is more representative of the person's life as a whole. Those prior beliefs also come from a place of competence and therefore an ability to exercise their autonomy. On the other hand, dementia patients lack these autonomy rights as they may no longer be considered a person due to their inherent inability to make strong convictions about their sense of self. Jaworska disputes this by upholding the autonomy of dementia patients on the basis of their ability to value. However, this fails to realize that these new values result from an identity loss and supposing that adherence to them is best for the patient may cause harm. Therefore, authority should be given to advance directives created during a period of competence, so they accurately reflect one's core values. Respecting this autonomy in decision making is crucial to those who write their advance directives and violating this would be infringing on their rights.

Bibliography

Charland, Louis C., and Jennifer Hawkins. "Decision-Making Capacity." Stanford Encyclopedia of Philosophy. Stanford University, August 14, 2020. https://plato.stanford.edu/archives/fall2020/entries/decision-capacity/.

Jaworska, Agnieszka. "Advance Directives and Substitute Decision-Making." Stanford Encyclopedia of Philosophy. Stanford University, April 6, 2017. https://plato.stanford.edu/entries/advance-directives/#Bib.

Dworkin, Ronald. "Life Past Reason." David James Bar, 2017. http://www.davidjamesbar.net/wp-content/uploads/2017/01/Dworkin-Life-Past-Reason.pdf.

Dresser, Rebecca. "Dworkin on Dementia: Elegant Theory, Questionable Policy." The Hastings Center Report 25, no. 6 (1995): 32-38. https://doi.org/10.2307/3527839.

Ott, Andrea. "Personal Identity and the Moral Authority of Advance Directives." The Pluralist 4, no. 2 (2009): 38–54. http://www.jstor.org/stable/20708976.

Jaworska, Agnieszka. "Respecting the Margins of Agency: Alzheimer's Patients and the Capacity to Value." Philosophy & Public Affairs 28, no. 2 (1999): 105–38. http://www.jstor.org/stable/2672820.

Gawande, Atul. Being Mortal: Medicine and What Matters in the End. Picador USA, 2017.

Endnotes

1 Dresser discusses her objections to Dworkin's theory in "Dworkin on Dementia: Elegant Theory, Questionable Policy (1995)

2 Agnieszka Jaworska, "Advance Directives and Substitute Decision-Making", Stanford Encyclopedia of Philosophy (Stanford University, April 6, 2017). Under Section 3

3 Agnieszka Jaworska, "Respecting the Margins of Agency: Alzheimer's Patients and the Capacity to Value", JSTOR (Philosophy & Public Affairs 28, no. 2, 1999). p. 107

4 Ronald Dworkin, "Life Past Reason", David James Bar, 2017. P. 361

5 Louis C. Charland and Jennifer Hawkins, "Decision-Making Capacity", Stanford Encyclopedia of Philosophy(Stanford University, August 14, 2020). Under Section 5.4

6 In this book, the surgeon and author Atul Gawande explores what it is like for patients to age and approach death. He recounts difficult conversations with his patients and tries to figure out what medicine can do to ameliorate their suffering.

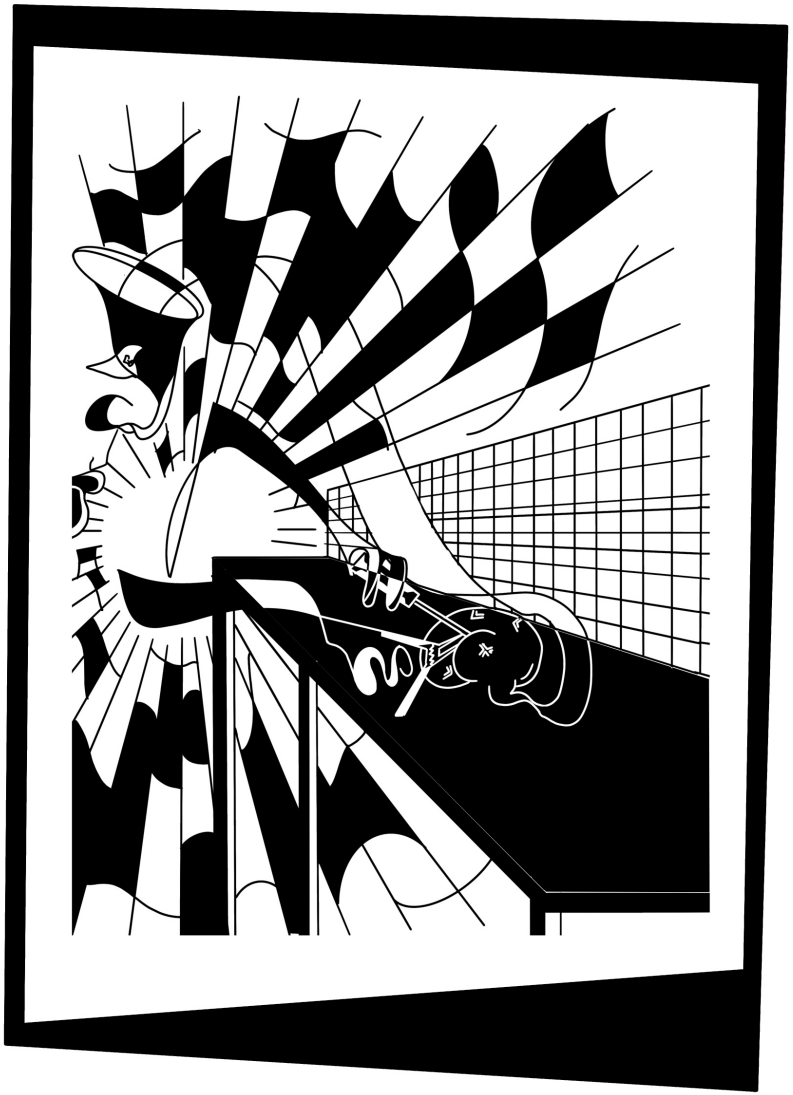
7 Atul Gawande, Being Mortal: Medicine and What Matters in the End (Picador USA, 2017). p. 90-91

8 Jaworska, "Respecting the Margins of Agency: Alzheimer's Patients and the Capacity to Value" p. 141)

Both Conscious and Not

Insights from Ancient Greek Philosophy and Contemporary Self Psychology on Consciousness, Becoming, Choice, and Vitality

By **Daniel Teplow**
Colorado College



"The man who believes that the secrets of the world are forever hidden lives in mystery and fear. Superstition will drag him down. The rain will erode the deeds of his life. But that man who sets himself the task of singling out the thread of order from the tapestry will by the decision alone have taken charge of the world and it is only by such taking charge that he will effect a way to dictate the terms of his own fate."[1]

- Cormac McCarthy

Plato and Aristotle sought to uncover the depths of the human condition and in doing so, helped elucidate what it means to live as a conscious being. They realized that consciousness makes life complicated: out of the rift created by self-consciousness emerges both the deepest suffering, yet also the possibility of the heights of vitality. Further, the exploration of the relationship between consciousness and vitality incorporates that realm of mind which rationality alone cannot penetrate: the unconscious. It was not until more than two millennia after Plato and Aristotle that Nietszche and Freud led a radical breakthrough in the concept of mind by venturing beyond ego consciousness and proposing that there is a non-conscious dimension of our being that could and ought to be understood. Plato's maxim to "know thyself" became even more complex in light of these fruitful insights.

Through an integrative exploration of Greek philosophy and contemporary self psychology I will examine the condition of self-consciousness: both the adversities and the opportunities it creates. This will begin with the ontological lack created through self-consciousness, then lead into the avenues for becoming and the notion of choice. Finally, I will examine how these latter possibilities are the foundation for living in a state of vitality.

Lack

A fundamental and distinguishing part of human existence is self-consciousness. By self-consciousness I mean the ontological condition of *being* while reflecting on being: subjectivity reflecting on experience as object.[2] This simultaneous reflective subjectivity and objectification is phenomenologically experienced as a removal from our experience. This removal and the rift it opens in our being feels like a ripping apart. We can first explore why this reflective subjectivity causes suffering from a psychological perspective. The 20th century psychoanalysts noted that it is not just that we are conscious, but that our reflective cognition has inbuilt propensities towards judgment, most of which comes down upon ourselves.

Sigmund Freud posited that the superego is a fundamental part of consciousness – the particularly punishing voice of paternal judgment in our heads – it stands above us with an unwavering vigilance that is quick and harsh in its condemnation.[3] Freud's successor Heinz Kohut posited that one of the fundamental poles of the self structure is the realm of ideals. The nature of idealized projections is that we generally have a conception of what we would like to be which always lies beyond us.[5] And while our ideals do not have this punishing quality, we are still left with a feeling of inadequacy in visualizing the space that lies between us and those ideals. So, from Freud and Kohut, respectively, we get a judgment from above and an insufficiency from in front.

To further analyze the ontological

condition of lack, we can turn to an existential perspective to detail the issues arising from the awareness of our own limits. To be conscious is to be aware of our own finitude. We are painfully aware of the limits of our being amidst a limitless setting. This primarily manifests in the awareness that there is a time limit in addition to cognitive constraints that limit the scope of our consciousness. Then, because of our awareness of the inherent limitations on our consciousness, we are cognizant of the reality that our knowledge will always lack. But, these limits are not some abstruse subject of pontification: they are painfully, viscerally alive for us. They surface in consciousness when an injury reveals our physical fragility, as we notice the signs of aging, when we see others exceed our intelligence, and when we can't find the right words we need to communicate with a loved one. Perhaps most significantly, we live with the knowledge of our own mortality: we are beings that live with our own non-being. The bottom line is this: consciousness is cause for strife. But the primary possibility this rupture in being creates is the possibility of becoming.

Becoming

The ontological lack created through self-consciousness destines us to be in pursuit of wholeness. Not only are we in pursuit of wholeness, but we generally feel a teleological task to develop: to become greater. In the *Symposium*, Plato describes this ontological becoming as the task of pursuing beauty. He states that ultimately we are erotically led by the "beautiful…itself by itself with itself" which is "always one in form; and all the other things share in that, in such a way that when those others come to be or pass away, this does not become the least bit smaller or greater nor suffer any change."[5] Ultimately we pursue not simply beautiful things, but the form underlying those things, the beautiful *in itself*. So as it is this form underlying all things, Plato asserts that we are teleologically destined to pursue the beautiful: a life of erotically uncovering deeper, more complex levels of beauty through the development of reason.

> *This is what it is to go aright, or be led by another, into the mystery of Love: one goes always upward for the sake of this Beauty, starting out from beautiful things and using them like rising stairs: from one body to two and from two to all beautiful bodies, then from beautiful bodies to beautiful customs, and from customs to learning beautiful things, and from these lessons he arrives in the end at this lesson, which is learning of this very Beauty, so that in the end he comes to know just what it is to be beautiful.*[6]

Plato's teleology is structured in this progression: lack leads us to love a body, then all bodies, then beautiful social laws, then beautiful things (which I take to generally mean as beautiful ideas), and then finally to know the Beautiful in itself. Then, following the Greek maxim that the mind takes on the object it intends, in knowing the Beautiful in itself we become immortal in a sense.

We can also see the relationship between lack and a grand process of becoming in Aristotle's metaphysical exploration of the unmoved mover. The unmoved mover is pure actuality. Pure actuality in itself is thinking without an object: the activity of thinking about thinking about thinking.

> "It is itself, therefore, that it [thinks], if indeed it is the most excellent thing, and the active [thinking] is active [thinking] of active [thinking]."[7]

How then does the unmoved mover actually move things if it is pure actuality? Actuality itself is what is desired by all things that have potentiality. So, out of a fundamental lack due to everything's potentiality, all things endeavor to further actualize, to strive for wholeness. We can extrapolate then that this movement towards actuality occurs the more we are engaged in activities as opposed to actions, where we do things in which the end is contained in itself. And the most actualizing activity, the act where Aristotle believes we achieve divinity as conscious beings, is in thinking in itself: being a subjective reflection without an object. This is Aristotle's theoretical state of being where we transcend that original cause of suffering, the painful laceration of subject and object.

Lack also creates a pursuit of wholeness from a contemporary self psychological perspective. For Kohut, the ideal pole of the self structure "teleologically motivate(s) us to live into the future" in an individualized manner, as it is paired with the realm of idiosyncratic traits.[8] It is primarily the ideal pole for Kohut that makes humans developmental in nature. Even if all other realms of the psyche are healthy and integrated, ideals perpetuate and always lie beyond us. For this reason, we are always in pursuit of greater versions of ourselves. For Kohut, the ontological lack entails that we live towards self-actualization where we transform the traumas of the past and become whole in living towards the future in a pursuit of ideals.

While these three thinkers differ on what it is precisely that makes us whole, they all point to the fact that there is a fundamental lack inherent in being a conscious being, which leaves us needing to pursue something greater: *to be human is to be becoming.* The key difference to note between the Greek conception of becoming and the psychoanalytic conception is that for the Greeks, becoming is ultimately entwined in a metaphysical set of meanings and that this endeavor is pursued primarily through deeper levels of rational understanding. This will be further explored in the last section, which will examine how one may live a meaningful life. Before, we must investigate the notion of choice, the faculty of humans that is both critical in the process of becoming and created through the condition of consciousness.

Choice

Aristotle sanctified choice as a tenet of the self-conscious life. For Aristotle, choice arises out of sophisticated rational internal dialogue. He states that rationality can be directed in two ways: deliberation and contemplation. Deliberation allows us to practically develop character through adherence to virtues, the mean between the extremes of character states.[9] Being virtuous allows us to not be overcome or underwhelmed by emotion. In moderating the passions, we can take appropriate actions, which provides us the space for the second task of rationality, contemplation. Contemplation is thinking as an activity in itself, which, in its purest form, is the most actualizing act: the act that brings us closest to Aristotle's conception god.[10]

However a self psychological framework can strengthen Aristotle's account of choice through its further developed concept of mind. The crucial nuance

stems from the understanding that there is an unconscious region of the mind and that the particularities of the conscious and unconscious sectors must be integrated. More, psychoanalysis is further able to characterize the faculties of mind that are involved in the process of choice, so we can elaborate on the Greek notion of dialogue.

A functioning ego will engage in dialogue with the information at hand. It will take in information from the 'external' world and relate it to the existing information at hand in the 'interior' world. But this is where deliberation becomes complicated because the information coming from the interior world is often wildly, utterly confusing. So then what is the "I" and how does it choose? Kohut posits that the mind is structured by the ego, id, social unconscious, and the self. The ego is the center of consciousness, rationality, and medium through which we negotiate the internal and external world. It is the *experience of I* that can engage in dialogue. However, if the ego only corresponds with the social unconscious then we are likely a spokesperson for ideology. If the ego only reasons in accord with the id then we are bodily objects and so is the world. If the ego only engages with itself then we are determined by a need for tyrannical control and we feel radically unreal amidst directionless, gratuitous reasoning.

We are only capable of *choice* when the ego is centrally calibrated to a healthy nuclear self. The self is a largely unconscious structure at the core of the psyche and is the locus by which the other sectors of the psyche revolve. The self structure describes what Kohut posited to be the essential human needs through his years of clinical observations. These include the need to pursue ideals, the need for self esteem, the need for idiosyncrasy, and the need for loving relationships. We phenomenologically experience the presence of a healthy self structure through the binding energy that is eros.[11] Thus, the self appears to consciousness, guiding a hopefully responsive ego by the language of the unconscious: intuition and feeling. So, the *most authentic* choice arises when there is a depth of dialogue and the dialogue takes into account the aims of the self. And due to the fact that the self is largely non-conscious, intuition and emotional intelligence are required for this attunement to the self. Thus, the ego exercises rationality in this communication with the self, *but it cannot be purely rational*. The ego must have developed emotional intelligence in order to comprehend the language required to dialogue with the self. Actions and activities then arise from the locus of this self calibrated dialogue which combines both rationality with embodied wisdom. Only through this self calibrated dialogue are we able to choose, rather than having our life dictated by forces distant from the core of what we are. When we choose in this manner, *we know* that we are genuinely making decisions and partaking in self-authorship as we feel a tangible sense of aliveness.

Vitality

Now we can examine how these two phenomena created by the facticity of self- consciousness culminate in a state of vitality. Vitality is a state of being wholly, lovingly alive in the world. It is living in a state of deeply entrenched meaningfulness: a movement in our entire being. This state of being arises out of the process of becoming which is pursued through choice. In other words, vitality arises when we *mindfully pursue that which actualizes us*. Only through this phenomenological experience of deep meaning are we able to redeem the ontological lack created by self-consciousness. The lack both creates the tragic reality of suffering yet redeems it by creating the possibility of vitality, the richest state of meaning.[13]

This is where psychoanalysis provides crucial input into the notion of vitality. To move our entire being, movement must also include the unconscious realm of our being. Intuition and feeling are primary epistemological faculties engaged in this self-authoring journey of becoming. While rationality is essential in this process, it needs help from our other modes of knowing. And this is where Plato and Aristotle's reification of 'pure' rationality has its shortcomings. The deeper levels of meaning available to humans cannot be purely *rationally known*. Meaning must be *experienced* by the entirety of our being including the thoroughly embodied, non-conscious realms. We are both *conscious and not* so the deepest level of meaning will be both conscious and not. For that reason, experience engages meaning deeper and more fully than rational knowing alone.

I would venture to say that Plato and Aristotle's logical troubles in proving what is absolutely real while holding reason as the highest faculty capable of reaching the absolutely real highlights the importance of not subordinating intuition and emotion to reason. Plato cannot rationally prove how forms and things are connected if forms are immaterial and eternal, and things are material and mutable. Aristotle cannot rationally prove *how or why* potential, material entities came into existence by an unmoved mover which is pure actuality, immaterial. The fact that these attempts are logically incomplete and yet they did not accept these shortcomings ironically indicates that their reasoning was influenced by unconscious forces (as is all reasoning). However, I point this out not to detract from their wisdom. There is profound insight in their metaphysical inquiries and the frameworks of meaning they uncovered. Yet we arrive at this wisdom in part through logic, and in part through intuitive processing, coalescing in the *experience* of meaning.

These metaphysical inquiries do not only contain wisdom, without engaging in them we cannot experience the depths of vitality. We must embark on these metaphysical investigations to infuse the ontological rift with sufficient meaning. We experience vitality at a level far deeper than is possible if we narrow our exploration to what is only individual and particular in us. Philosopher, John Riker, poignantly explains this with ethics in mind but the sentiment resonates well with metaphysics.

> *...persons need to 'dissolve' their narrow, self-involved selves and merge with a wider set of meaning and human value. Without this wider set of meanings, our personal strivings have the character of being small, restless, and without final fruit. Such a dissolving of the self into a wider realm of meaning at the same time the self keeps its emergent adventure into singularity is what grants a person the joy of being a coherent Hegelian contradiction: singular, yet universal.*[14]

This is what I believe to be the essential task of Greek metaphysics and philosophy in general. And while I am thoroughly biased, I believe the embodied practice of philosophy is the practice best equipped to navigate this particular

realm of being. To truly feel vital we have to perpetually develop a supra-individual understanding of the world that contextualizes our experience. This is something which self psychology and most contemporary discourses are less inclined to do, understandably out of fear of venturing into territory that cannot be quantifiably or empirically proven. Through metaphysical inquiry we allow ourselves to feel a sense of purpose and place within the broader workings of humanity and Being. And we can experience that sense of purpose through the *act of exploration* itself and through *incomplete* comprehensions. We don't have to logically prove what is real, eternal, immutable, unchanging, first, last, etc. We don't even have to arrive at definitive conclusions. I would venture to say that any time we claim to determine what is absolute, we close ourselves off in a surge of solipsistic omniscient fantasy. More our philosophizing resembles something more like dogmatic religiosity. And ironically, we close ourselves off to the experience of meaning which always entails a perpetual becoming. We merely *live* if we forget the harmonious relationship between the question of *why* and life itself. But, while that essential question is alive in us, we are *alive*.

Bibliography

Cohen, Marc, Curd, Patricia, and C.D.C. Reeve. *Readings in Ancient Greek Philosophy: From Thales to Aristotle.* Indianapolis: Hackett Publishing Company, Inc, 2016.

Freud, Sigmund. *On Narcissism: An Introduction,* In *The Freud Reader*. Edited by Peter Gay. New York: W.W. Norton and Company, 1989.

McCarthy, Cormac. *Blood Meridian, or, the Evening Redness in the West*. New York: Vintage Books, 1985.

Riker, John Hanwell. *Exploring the Life of The Soul: Philosophical Reflections on Psychoanalysis and Self Psychology*. Lanham: Lexington Books, 2017.

Endnotes

1 McCarthy, Cormac. *Blood Meridian, or, the Evening Redness in the West*. New York: Vintage Books, 1985, 207-208.
2 Cohen, Marc, Curd, Patricia, and C.D.C. Reeve. "Plato: Republic," in *Readings in Ancient Greek Philosophy: From Thales to Aristotle.* Indianapolis: Hackett Publishing Company, Inc, 2016, 226.
3 Freud, Sigmund. "On Narcissism: An Introduction", in *The Freud Reader*. Edited by Peter Gay. New York: W.W. Norton and Company, 1989, 559.
4 Riker, John Hanwell. *Exploring the Life of The Soul: Philosophical Reflections on Psychoanalysis and Self Psychology*. Lanham: Lexington Books, 2017, 74.
5 Cohen, Curd, and Reeve, "Plato: Republic" in Ancient Greek Philosophy, 226.
6 Cohen, Curd, and Reeve, "Plato: Republic" in Ancient Greek Philosophy, 226.
7 Cohen, Curd, and Reeve, "Aristotle: Metaphysics" in Ancient Greek Philosophy, 576.
8 Riker, *Exploring the Life of The Soul*, 44.
9 Cohen, Curd, and Reeve, "Aristotle: Nicomachean Ethics" in Ancient Greek Philosophy, 608.
10 Cohen, Curd, and Reeve, "Aristotle: Nicomachean Ethics" in Ancient Greek Philosophy, 620
11 Riker, *Exploring the Life of The Soul*, 60.
12 Riker, *Exploring the Life of The Soul*, 61.
13 Riker, *Exploring the Life of The Soul*, 75.

The Nature Quotient: Free Will as a Biological Process

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Introduction

Historically, the question "Do we have free will?" has been viewed through the lens of the natural world[1] or theology[2]. In the present age, the advent of brain imaging technology has given researchers insight into a realm untrodden—the human mind. Thus, a new dynamic has been introduced to the discussion of free will with its foundation built upon empirical data. Research in neuroscience has received much scrutiny by philosophers and phenomenologists since taking its seat at the table. However, despite contemporary technological limitations, numerous studies show increasingly compelling data that acts of conscious intent are precipitated by unconscious neural events. Empirical research suggests that free will is a complex biological and environmental process for which the evidence exists in the rudiments of physiology.

Neuroscience

For this discussion, it is important to ground the relationship between consciousness and free will. Classically, consciousness has been viewed by Western philosophers as the divine spark that bestows meaning upon the vehicle of the body. Consciousness is the awareness of memory, emotion, desire, and intention, such that if it did not exist, humans would be mere automata. Accordingly, the question of free will in contemporary philosophical and neuroscientific discussion is popularly framed as follows: does consciousness play a causal role in action? When one approaches the question in this context, they associate free will with bodily movement. To this notion, Benjamin Libet's use of the experimentalist method reveals startling data. In Libet's experiment, acts of choice were preceded by neural activity 350-400ms prior to the subjects' awareness of their desired action.[3] This activity is considered the readiness potential. The data suggests that acts of free will are caused by unconscious neural precursors and that consciousness is epiphenomenal, meaning it plays no causal role in action.

The consistency of the readiness potential preceding volitional acts provides compelling data. However, a difference of milliseconds when discussing a variable as difficult to quantify as the window of choice offers prime grounds for dispute. There has been no shortage of objections founded upon the notion that a question of this depth cannot be answered in the frame of hundredths of a second. With research methods and technology in experimental neuroscience still in its beginning stages, Libet acknowledges the inevitable shortcomings of his experiment. He states, "It is possible that cerebral activity is initiated at times earlier than the onset of the recorded RP in some other regions".[4] Libet's early experiments rattled the philosophical community, resulting in a resurgence of the conversation of free will. Subsequent experimental trials dug deeper to find more compelling evidence of neurological precursors.

The cortical region that revealed the RP in Libet's experiments is the supplementary motor area (SMA). With such limited precursor-like activity, however, these findings could indicate skewed self-scrutinizing data, in which a test subject gathers data about their own experience. However, Chun Siong Soon and colleagues conducted an experiment that followed processes similar to those of Libet and began to find neurological trends via fMRI monitoring. The recorded trends allowed for a system of cognitive mapping[5] that identifies consistent neural activity while performing specific actions.[6] In turn, Soon and colleagues were able to identify precursory neural activity in the frontopolar and parietal cortices up to 10s prior to conscious awareness of the desired action.

Interpreting these findings is not straightforward. Soon and colleagues state, "To rule out the idea that any leading activity merely reflects unspecific preparatory activation, it is necessary to study free decisions between more than one behavioral option."[7] Accordingly, the trials involved independent scenarios with no control function and a portion in which the subjects were exposed to leading variables. The results remained fixed. The conclusion drawn is that neural activity precedes conscious intent in "high-level planning stages" that is then stored in the frontopolar cortex and undergoes scrutiny by "decision-related information" before it reaches awareness.[8] Such findings support the epiphenomenalist notion that consciousness is limited to taking part in the awareness of intent. As temporal factors experienced in the environment are processed by information hubs in the brain, complex unconscious neurologic activity determines risk vs. reward elements until the individual experiences a desire to act.

Phenomenology

The question—Do we have free will?—receives a very straightforward answer in the realm of neuroscience. It is answered through the frame of, can consciousness generate neural events that lead to bodily movement? However, phenomenologically, there are several unaddressed factors with such a singular approach. Within the physicalist worldview, Libet's and subsequent neuroscientific findings are not particularly revolutionary. For an organism that synaptically processes information from its environment and translates unconscious neural activity into conscious movement, the RP is a natural finding. Accordingly, the causal relationship between unconscious processes and action is not heavily debated. The issue arises when the aforementioned relationship is used as proof for a deterministic model.

It is prudent to describe what is meant when I say that the causal relationship is not heavily debated. Reflective and perceptual theories on movement hold that it is some form of awareness of the intention of an action or of the "proprioceptive and visual" feedback that characterizes an action as conscious.[9] As reflective or perceptual information follows cognitive pathways back to consciousness, the preceding action is given value as successful or unsuccessful—the actual physical means by which the action is carried out is governed by physical laws as described by the Cartesian concept of mind. As Gallagher states, "If we were normally required to consciously represent our movements in a Cartesian mental space before we effected them in a worldly space, we would have to exert great cognitive effort and slow things down to a significant degree."[10] Such theories bifurcate the conversation of free will into two categories: proximal will (the means) and distal will (the ends); this topic will be covered in the philosophical implications section as it relates to biological function.

Phenomenologically, there is an inherent issue with the nature of Libet-like experiments. Experiment-dependent quantitative data is gathered from intro-

spective information communicated by participants. There are two major factors to consider: the question of how one identifies the genesis of a conscious act of will and the weak introspective measures used to do so—the two are as inseparable as they are independent. It is pertinent to note, though, that introspective data as coined by Gallagher, in the "very weak sense,"[11] is standardly used as evidence in experimental science. The notion involves the subject reflectively communicating information about their cognitive experience. In the experiments conducted by Soon and colleagues, subjects reflected upon their mental state when they felt the conscious will to push the button and were asked to communicate that information.[12] The issue lies with identifying whether the subjects were reflecting upon the genesis of intent or upon the visualization of their finger pressing the button. The imperative of the experiment is the ability to identify the moment in which one generates the will to act. Nevertheless, the subject carries prior environmental and action-related biases—a difficult obstacle to overcome as the subject must have knowledge of the actions they are expected to perform. Thus, a buildup of proprioceptive and environmental stimuli taints the spontaneous mental state sought by the researcher.

Philosophical Implications

Despite my objection to the concept of absolute free will—the notion that an individual's consciousness is the dominating force in all behavior—there is a palpable duality in the undercurrent of consciousness. One may find it difficult to relinquish the relation of feelings like passion and devotion to a cosmological or divine origin. However, the advent of technology is responsible for the divergence from metaphysical explanations for the nature of consciousness to concepts that provide quantitative scientific support.

The notion that there are layers in the role consciousness plays in free will refers to the concession that trivial tasks such as the pressing of a button or a flick of the wrist are preceded and predetermined by unconscious neural events. However, what follows this exception is a reclassification of the structure of free will. Generally, when one considers free will, it is conceptualized by an ability to make a decision and carry out an act. In light of recent neuroscientific findings, the formulation of ideas is attributed to distal will (the end-goal), while the physical action carried out is referred to as proximal will (the means).[13] Accordingly, objections to the notion that consciousness is epiphenomenal argue that Libet-like experiments are limited in scope claiming that they exclusively test acts of proximal will, which are not a comprehensive representation of conscious intent.

For example, consider the action of throwing a ball. The steps you take in the direction of the ball, the arm with which you reach down to pick it up, the grasping of your fingers around it, and the wind-up and release of the ball are subject to quantitative measure as related to the neurological impulses that precipitate your actions. However, despite the ability to quantify the factors involved in the outward expression of intent, there still exists the currently immeasurable precursor to action—the desire to play catch with your friend.

The duality of proximal and distal will is akin to the relationship of action vs. intent. As mentioned earlier, Gallagher notes that Libet-like findings are not surprising as complete attentiveness and intention behind menial finger and hand movements would markedly "slow things down."[14] In this context, the causal relationship of proximal will is relinquished to precursory neural activity, making it a biological and environmental function. Yet, proximal and distal will remain separate ends of the same thread tying consciousness together; if the former is governed by the laws of nature, so too is the latter.

As it is presently known, functions of the body are governed by the autonomic (involuntary) and the somatic (voluntary) nervous systems.[15] In the context of this discussion, proximal will can be associated with involuntary response and distal will with voluntary. Within the realm of physiology and biology, many bodily functions are associated with involuntary response, i.e., breathing, pulse, and thermoregulation. However, the listed functions can be influenced by factors of voluntary origin, for example, holding one's breath, vigorous activity, or venturing into the cold or heat. Nevertheless, the body must maintain a state of homeostasis—one must eventually take a breath, rest from activity, or seek shelter from an extreme environment—or the body will shut down. The autonomic and somatic nervous systems are also heavily influenced by environmental factors such as climate, levels of danger, risk vs. reward, and so on. Such information is constantly being processed by various conscious and unconscious sensory mechanisms and translated into observable behavior.

As it follows, distal will—an individual's formulation of abstract ideas and intentions—is subject to environmental factors based upon information gathered by sensory mechanisms. It is feasible that as variations in behavioral trends accumulate nuanced findings, cognitive schematics grow in complexity to formulate intricate ideas. The issue with such claims is the limitation of modern technology to test and account for such factors.[16] Accordingly, many contemporary theories on the phenomenology of free will must turn to qualitative evidence. An interesting field of study to consider is that of the relationship between athletes and peak performance.

Elite-level athletes are considered masters of their physical attributes and the ways in which they utilize their bodies in their respective disciplines. Yet, during stressful situations of immense pressure, they too are known to falter. However, there are those remarkable moments in which one feels that nothing can stop them, every movement is impeccable, that they are in a state of flow. Susan Jackson's qualitative experiment on flow states in elite-level figure skaters reveals insight to the agency one feels in peak physical states. On the requisites for eliciting flow state, Jackson notes, "Merging of action and awareness describes the complete involvement of person with activity… feeling in control without actively seeking control are further components of flow states".[17] It is the ambiguous notion of control that is most interesting in states of deep physical and mental symbiosis. One participant notes:

> *It was just one of those programs that clicked. I mean everything went right, everything felt good . . . it's just such a rush, like you feel it could go on and on and on, like you don't want it to stop because it's going so well. It's almost as*

> *though you don't have to think, it's like everything goes automatically without thinking . . . it's like you're in automatic pilot, so you don't have any thoughts. You hear the music but you're not aware that you're hearing it, because it's a part of it all.*[18]

Such claims are a testament to the relationship between proximal and distal will. As proximal will (the means) is simulated repeatedly to achieve distal will (the end-goal), the individual hones the edge of their blade to make a finer cut upon the situation in which they must perform. What results is a state in which the individual's proximal and distal will become synergistic.

Conversely, it is important to ask, what is the implication of damage to regions of the brain involved with high-level planning stages and information processing? In an experiment on risk vs. reward[19], individuals with bilateral damage to the ventromedial prefrontal cortices not only show a lack of awareness to disadvantageous trends in data, they lack signs of the autonomic responses associated with decisions of high risk. Meanwhile, subjects with normal functioning brain mechanics unanimously make choices associated with advantageous trends in data.[20] These findings are either a result of subjects with self-destructive behavior and a lack of reason, or they exemplify the importance that unconscious biological and environmental processes play in situations of conscious intent.

Further evidence for the importance of proper brain chemistry and mechanics can be found in individuals suffering from degenerative cognitive disease. Disorders such as Alzheimer's and Parkinson's affect the continuity of memory, thought, and motor skill. Often, individuals lose a sense of agency, as though the essence of intention escapes them, replaced by senseless peculiarities. Hence, the importance the brain plays in consciousness is unequivocal—it is the house of consciousness. Without the proper neural infrastructure and mechanics, the brain fails to create the divine spark that characterizes the human condition.

Conclusion

The objective of this paper is to provide evidence that free will is a biological and environmental process. It is not to suggest that free will is a construct with no bearing on the human experience. On the contrary, it is a profound consciousness that makes the human experience unique.

Libet's and subsequent neuroscientific findings lay a foundation for the biological claim. What follows is a reclassification of the structure of free will in proximal and distal will. An argument is made that the concession of proximal will being subject to unconscious processes implicates distal will as well. Further evidence is provided for the importance of properly functioning brain mechanics in relation to carrying out desired action. Consequently, despite barriers faced by current technology, free will is not at the whim of consciousness. Instead, it is a product of biology and environment of which we are simply aware.

Bibliography

Bechara, Antoine, Hanna Damasio, Daniel Tranel, and Antonio R. Damasio. "Deciding Advantageously before Knowing the Advantageous Strategy." Science 275, no. 5304 (1997): 1293–95. https://doi.org/10.1126/science.275.5304.1293.

Brunton, Laurence L., Randa Hilal-Dandan, Knollmann Björn C., Thomas C. Westfall, Heather Macarthur, and David P. Westfall. "Chapter 8 Neurotransmission: The Autonomic and Somatic Motor Nervous Systems." Essay. In Goodman Et Gilman's the Pharmacological Basis of Therapeutics, 115–48. New York, NY: McGraw Hill Education, 2018.

Gallagher, Shaun, and Jesper Brøsted Sørensen. "Experimenting with Phenomenology." Consciousness and Cognition 15, no. 1 (2006): 119–34. https://doi.org/10.1016/j.concog.2005.03.002.

Jackson, Susan A. "Athletes in Flow: A Qualitative Investigation of Flow States in Elite Figure Skaters." Journal of Applied Sport Psychology 4, no. 2 (1992): 161–80. https://doi.org/10.1080/10413209208406459.

Libet, Benjamin, Curtis A. Gleason, Elwood W. Wright, and Dennis K. Pearl. "Time of Conscious Intention to Act in Relation to Onset of Cerebral Activity (Readiness-Potential)." Brain 106, no. 3 (1983): 623–42. https://doi.org/10.1093/brain/106.3.623.

Libet, Benjamin. "Do We Have Free Will?" The Oxford Handbook of Free Will, 2005, 550–64. https://doi.org/10.1093/oxfordhb/9780195178548.003.0025.

Plaks, Jason E., and Jeffrey S. Robinson. "Proximal and Distal Intent: Toward a New Folk Theory of Intentional Action." Review of General Psychology 21, no. 3 (2017): 242–54. https://doi.org/10.1037/gpr0000122.

Pockett, Susan, William P. Banks, and Shaun Gallagher. "Where's the Action? Epiphenomenalism and the Problem of Free Will." Essay. In Does Consciousness Cause Behavior?, 109–24. Cambridge, MA: MIT, 2006.

Soon, Chun Siong, Marcel Brass, Hans-Jochen Heinze, and John-Dylan Haynes. "Unconscious Determinants of Free Decisions in the Human Brain." Nature Neuroscience 11, no. 5 (2008): 543–45. https://doi.org/10.1038/nn.2112.

Suzanne Wakim, and Mandeep Grewal. 2021. "Peripheral Nervous System." Butte College. September 4, 2021. https://bio.libretexts.org/@go/page/16786.

Endnotes

Physicists such as Isaac Newton (*Principia*) claimed that natural law does not leave room for free will—once a physical act is in motion, it follows a mathematically predictable path.

[2] Figures like Thomas Aquinas (*Summa Theologica*) and Saint Augustine (*On Free Choice of the Will*) held that free will is a property of the human condition bestowed upon us by God.

[3] Benjamin Libet, "Do We Have Free Will?" *The Oxford Handbook of Free Will*, 2005, 550–64. https://doi.org/10.1093/oxfordhb/9780195178548.003.0025.

[4] Benjamin Libet et al., "Time of Conscious Intention to Act in Relation to Onset of Cerebral Activity (Readiness-Potential)." *Brain* 106, no. 3 (1983): 623–42. https://doi.org/10.1093/brain/106.3.623.

[5] Cognitive mapping involves recording a person or group's mental model while experiencing a particular process or concept. The result of creating a "complete" cognitive

model could provide the ability to correlate complex behavior with neurological states thus providing a means of predicting outcomes with near-perfect accuracy.

[6] Chun Siong Soon et al., "Unconscious Determinants of Free Decisions in the Human Brain." *Nature Neuroscience* 11, no. 5 (2008): 543–45. https://doi.org/10.1038/nn.2112.

[7] Soon, *Unconscious Determinants, 543.*

[8] Soon, *Unconscious Determinants, 545.*

[9] Shaun Gallagher, Susan Pockett, and William P. Banks, "Where's the Action? Epiphenomenalism and the Problem of Free Will." Essay. In *Does Consciousness Cause Behavior?*, 109–24. Cambridge, MA: MIT, 2006.

[10] Gallagher, *Epiphenomenalism, 117.*

[11] Shaun Gallagher, and Jesper Brøsted Sørensen. "Experimenting with Phenomenology." *Consciousness and Cognition* 15, no. 1 (2006): 119–34. https://doi.org/10.1016/j.concog.2005.03.002.

[12] Soon, *Unconscious Determinants, 543-45.*

[13] Jason E. Plaks, and Jeffrey S. Robinson, "Proximal and Distal Intent: Toward a New Folk Theory of Intentional Action." *Review of General Psychology* 21, no. 3 (2017): 242–54. https://doi.org/10.1037/gpr0000122.

[14] Gallagher, *Epiphenomenalism, 117.*

[15] Suzanne Wakim, and Mandeep Grewal. 2021. "Peripheral Nervous System." Butte College. September 4, 2021. https://bio.libretexts.org/@go/page/16786.

[16] Factors such as age, gender, culture, ethnicity, past experiences and so on. How does one reconcile the inability to incorporate such pertinent information?

[17] Susan A. Jackson, "Athletes in Flow: A Qualitative Investigation of Flow States in Elite Figure Skaters." *Journal of Applied Sport Psychology* 4, no. 2 (1992): 161–80. https://doi.org/10.1080/10413209208406459.

[18] Jackson, *Flow States, 168.*

[19] Antoine Bechara et al., "Deciding Advantageously before Knowing the Advantageous Strategy." *Science* 275, no. 5304 (1997): 1293–95. https://doi.org/10.1126/science.275.5304.1293.

[20] Bechara, *Deciding Advantageously, 1293.*

The Neurophenomenology of DMT Entity Encounters

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N,N-dimethyltryptamine (DMT) is a rather mystical psychoactive chemical. When under the influence of DMT, many individuals across different places and periods of time have experienced what they believe to be "entities" or seemingly conscious beings that appear to feel very real. There are many records of individuals perceiving the existence of jesters, elves, shadow figures, humanoid beings, and insectoid beings during DMT trips. There have also been accounts of divine figures showing up during DMT experiences, such as Hindu, Egyptian, and Mayan deities. These are just a few examples of DMT entities that have been reported. According to a study done by Davis and colleagues,[1] despite only 21% of participants taking DMT with the intention of having an entity encounter, the majority of participants encountered entities. 69% of participants reported that the entity initiated the encounter and 80% of respondents reported that the experience changed their fundamental conception of the nature of reality.[2] When individuals describe their experience in detail online and in studies, they are often surprised to find out that other people who have taken DMT have experienced the same entities, and are able to describe the same exact features and details. Through space and time—without hearing other people's experiences—individuals consistently describe the same entities while on DMT. This phenomena leads many to call DMT the "spirit molecule," which posits an inherently mystical nature. Many believe that tapping into these mystical experiences via the spirit molecule can help one gain access to the nature of reality and the essence of being.

According to Davis and colleagues' study,[3] 39% of participants experienced aliens, 39% experienced spirits, 16% experienced angels, 14% experienced elves, eight percent experienced faeries, 11% experienced religious figures, 6% experienced clowns, and 18% experienced plant or chemical spirits. This brings forth an important psychological question: what are DMT entities on a neurophenomenological level, and how is this experience represented in the brain? This paper aims to explore the neurophenomenology of DMT entity experiences. First, it is important to discuss the pharmacology of DMT, which focuses on the mechanisms of action, uses, and effects of drugs. Second, it is necessary to operationally define out-of-body experiences (OBEs) and draw parallels between the way both OBEs and the DMT experience are represented in the brain. Third, the temporoparietal junction (TPJ)'s role will be discussed in relation to the OBE and the DMT experience. Lastly, I will explore three hypotheses that have been developed based on the literature regarding DMT, which may explain the curious phenomenon of DMT entity experiences from a psychological lens.

To begin, DMT is classified as a classic psychedelic, which means that the chemical has an affinity for the serotonin 5-HT2A receptor.[4] DMT enters the blood-brain barrier primarily through smoking, although it can be taken orally in combination with an Monoamine oxidase inhibitor (MAOI) as well. Once the chemical makes it through the bloodstream to the brain, it acts as an agonist, mimicking serotonin and attaching to the 5-HT2A receptors. DMT is a tryptamine which means that it is an organic compound or indole that has two linked rings— one with six atoms and the other with five.[5] Tryptamines are found in plants, animals, and fungi, and they typically serve as a signaling molecule between cells.[6] Serotonin is a primary tryptamine in human bodies, so it is interesting that other tryptamines like DMT can act as agonists and partial agonists. Ballentine and colleagues' study[7] shows that references to "liminal conscious beings," also known as entities, and these alterations in consciousness are strongly associated with DMT and the receptors that it has an affinity for, including 5-HT2A, 5-HT5A, 5-HT7, D1, Sigma 1, and NMDA. The results of this study show that the brain regions in which these receptors are most prominent are the association cortex, rostral and dorsal anterior cingulate cortices, and temporoparietal junction.[8] In addition, the study explores what happens when the Default Mode Network (DMN) is interrupted. The DMN includes the medial temporal lobe, medial prefrontal cortex, posterior cingulate cortex, ventral precuneus, and parts of the parietal cortex, works as a complex network that is most active when the brain is resting,[9] and is thought to be associated with introspective thought—however this has not been empirically established. When the DMN becomes dysregulated,[10] it is associated with self-disintegration, alteration of own-body perception, and whole body displacement. Although there is no consistent way that an individual experiences alteration of own-body perception, it can manifest as feeling separate from one's body, observing one's self, etc. Alteration of own-body-perception can also be experienced as a feeling of omnipresence, which is often perceived as mystical. There is evidence that suggests the DMN is regulated by other parietal regions, such as the temporoparietal junction,[11] which will be explored in detail next.

The temporoparietal junction (TPJ) is the part of the brain where the temporal lobe and parietal lobe intersect[12] and it is thought to be associated with the experience of "liminal conscious beings," or entities. In addition to this, the TPJ regulates social cognition, attention, reasoning about oneself and others, self-body awareness, and self-other distinction.[13] A naturalistic field study done on the DMT experience describes how the TPJ is involved in regulating the experience of one's own body, and when DMT interrupts the TPJ, one's bodily sense of self becomes dysregulated, which can contribute to the DMT entity experience.[14] Other studies have shown that when the TPJ is dysregulated, extra-bodily perceptions similar to DMT entity encounters occur. For example, Arzy and colleagues[15] did a study in which the TPJ of an epileptic patient was electrically stimulated. When the left side of the TPJ was stimulated, the participant visually and spatially perceived the presence of what they described as a "shadow person." The presence of a "shadow

person" has often been described by people under the influence of DMT. The participant described having the sensation that a shadow was behind her and when her TPJ was further stimulated, the participant described the shadow as young and having no sex or gender.

The participant described the shadow's bodily position as almost identical to their own.[16] Arzy and his colleagues, like Blanke, knew that the TPJ regulates self-processing and own-body perception, which led them to theorize that when the TPJ is interrupted by electric stimulation, own-body perception is disrupted This may lead individuals to have extra-bodily perceptions that are disintegrated from their body.[17] This phenomenon may be described as an out of body experience (OBE). Blanke and colleagues have done multiple studies relating to the TPJ's role in OBEs. Just as research has shown that the TPJ has a central role in the DMT experience, there is evidence to support the TPJ having a central role in OBEs as well. Blanke and colleagues[18] tested this hypothesis and found that when the right side of the TPJ was stimulated in healthy participants, their mental own-body perception was altered and their perception of their body disintegrated from their sense of self.

If the OBE and DMT experience are both primarily regulated by the disintegration of the TPJ, then this brings forth a hypothesis that DMT entities are an extra-spatial representation of an individual's own body, which appear as visual hallucinations while under the influence of DMT. This means that the entity experience is a product of dysregulation of bodily perception. When considering this hypothesis, it is important to consider that there is a limited body of literature on the TPJ and its role involving DMT and OBEs, and replications of the studies need to be done in order to determine the reliability of the above stated results. Furthermore, there are discrepancies between different studies. For example, Blanke did multiple studies regarding the TPJ's role in OBEs but during one study he stimulated the right TPJ, and in another study he stimulated the left TPJ. More research needs to be done to explore what part of the TPJ is associated with what kind of self-regulation. This research will then inform which side of the TPJ to stimulate when engaging in experimental studies regarding the TPJ in relation to extra-spatial representations of bodily perception.

After exploring the TPJ's role in the DMT entity experience, it is important to explore DMT's role in regulating the thalamocortical system and why the thalamocortical system is significant to the entity experience. Gallimore[19] analyzes the neurophenomenological and evolutionary implications of the DMT experience, theorizing that in order to experience the DMT "hyperspace" experience— in which DMT entities are encountered—brains must hold neural representations for these experiences. This brings forth the following questions: what is the neural representation of DMT in the brain and how is this significant to the DMT entity experience? As aforementioned, DMT is a psychedelic tryptamine primarily serotonin in order to regulate the thalamocortical system instead. When considering this theory, one must acknowledge that by empirical standards it is considered speculative. There is no way to empirically test this theory for a variety of reasons, but primarily, it is nearly impossible to find a human ancestor from thousands of years ago with a brain intact that can be tested for DMT. Therefore, there is no way to determine if our ancestors secreted psychedelic quantities of DMT in the brain or what function that may have served. In addition to this, there have been no studies done to measure DMT in the human brain. Research has only been done to measure DMT in a rat brain, and it is a fallacy to assume that the results from rat brains will generalize to human brains. In order to strengthen this speculative theory, research done on the human brain is necessary.

After examining DMT's role in regulating the thalamocortical system, it is important to consider the idea that Jungian archetypes may be expressed through DMT entity experiences, as a representation of the collective unconscious. Psychoanalyst Carl Jung believed that the collective unconscious was a collection of all ancestral history and knowledge which ultimately comes together to create the psyche and archetypes. Archetypes are aspects of the collective unconscious that are represented through literature, theater, dreams, and art. Some Jungian archetypes, according to Jeffrey, include the hero, magician, sage (elder), shaman, creator, caregiver, self, jester, shadow, gatekeeper, healer, shapeshifter, and entertainer. These archetypes can be interpreted as DMT entities, such as ancestors and elders, the creator/universe, mother nature, jesters, shadows/shadow people, gatekeepers to DMT realm,[23] entities that perform surgeries on individuals who seemingly heal them psychologically, machine elves that shapeshift, and even circus entertainers.[24] It could be possible that DMT triggers an ancestral modulator in the brain that brings archetypes to the surface in the form of DMT entities. Similarly to the evolutionary theory, a lack of empirical evidence supporting this hypothesis needs to be considered. Although there is striking resemblance between Jungian archetypes and DMT entities, there is no way to empirically test whether these archetypes are a reflection of the collective unconscious. Despite the lack of empirical support, the idea that DMT entity experiences reflect archetypes from the collective unconscious is logical on a phenomenological level.

After discussing the previous three hypotheses regarding the neurophenomenology of the DMT entity encounter, it is apparent that first and foremost, more research needs to be done and more literature needs to be added to the field of psychology. Most of the literature available is from a philosophical lens, and while philosophy, specifically phenomenology, is a valuable tool when analyzing psychedelics like DMT, it is essential that psychologists ask questions and explore those questions through research in order to determine the neurophenomenology of the DMT entity experience. When determin-

ing which of the three hypotheses is the most feasible from an empirical lens, the hypothesis which posits that through the dysregulation of the TPJ, one experiences extra-spatial representation of the self, is supported by the most empirical evidence. The studies regarding extra-spatial perception of the self utilized statistically significant brain imaging data in order to formulate this hypothesis, which significantly strengthens this hypothesis. As mentioned, it is important for these research studies to be replicated in order to gain more efficacy and reliability. This body of information on the neurophenomenology of the DMT entity encounter should ultimately serve to inform future research that aims to explore the nature of DMT entity encounters from a phenomenological lens. It is clear that the entity encounter is one of the key phenomenological qualities of the DMT experience. If DMT does provide individuals access to a mystical realm that reveals the nature of being and reality, then it is important to study DMT and its purpose further, in order to come to further understanding about the nature of the universe and human existence within the universe.

Bibliography

Arzy, Shahar, Margitta Seeck, Stephanie Ortigue, Laurent Spinelli, and Olaf Blanke. "Induction
of an Illusory Shadow Person." Nature 443, no. 7109 (2006): 287–87.
https://doi.org/10.1038/443287a.
Ballentine, Galen, Samuel Freesun Friedman, and Danilo Bzdok. "Trips and Neurotransmitters:
Discovering Principled Patterns across 6,850 Hallucinogenic Experiences," 2021.
https://doi.org/10.1101/2021.07.13.452263.
Blanke, O. "Linking out-of-Body Experience and Self Processing to Mental Own-Body Imagery
at the Temporoparietal Junction." Journal of Neuroscience 25, no. 3 (2005): 550–57.
https://doi.org/10.1523/jneurosci.2612-04.2005.
Bukowski, Henryk, and Claus Lamm. "Temporoparietal Junction." Encyclopedia of Personality
and Individual Differences, 2017, 1–5.
https://doi.org/10.1007/978-3-319-28099-8_863-1.
Davis, Alan K, John M Clifton, Eric G Weaver, Ethan S Hurwitz, Matthew W Johnson, and
Roland R Griffiths. "Survey of Entity Encounter Experiences Occasioned by Inhaled
n,n-Dimethyltryptamine: Phenomenology, Interpretation, and Enduring Effects." Journal
of Psychopharmacology 34, no. 9 (2020): 1008–20.
https://doi.org/10.1177/0269881120916143.
Gallimore, Andrew. "Andrew Gallimore, Building Alien Worlds - the Neuropsychological and
Evolutionary Implications of the Astonishing Psychoactive Effects of
N,N-Dimethyltryptamine - Philpapers." Journal of Scientific Exploration, January 1,
1970. https://philpapers.org/rec/GALBAW.
Scott, Jeffrey. "Archetypes List: The Ultimate List of over 325 Archetypes." CEOsage, July 16,
2020. https://scottjeffrey.com/archetypes-list/.
Konishi, Mahiko, Donald George McLaren, Haakon Engen, and Jonathan Smallwood. "Shaped
by the Past: The Default Mode Network Supports Cognition That Is Independent of
Immediate Perceptual Input." PLOS ONE 10, no. 6 (2015).
https://doi.org/10.1371/journal.pone.0132209.
Luke, David. "DMT Research from 1956 to the End of Time." Academia.edu, June 12, 2015.
https://www.academia.edu/12936124/DMT_research_from_1956_to_the_end_of_time.
Michael, Pascal, David Luke, and Oliver Robinson. "An Encounter with the Other: A Thematic
Analysis of Accounts of DMT Experiences from a Naturalistic Field Study," 2021.
https://doi.org/10.31234/osf.io/8cdgs.
Nichols, C D, and D E Nichols. "DMT in the Mammalian Brain: A Critical Appraisal." Alius
Research, 2019. http://www.aliusresearch.org/nichols-nichols-endogenous-dmt.html.
Pollan, Michael. How to Change Your Mind: The New Science of Psychedelics. S.l.: Penguin,
2019.

Endnotes

1. Alan K Davis et al., "Survey of Entity Encounter Experiences Occasioned by Inhaled n,n-Dimethyltryptamine: Phenomenology, Interpretation, and Enduring Effects," Journal of Psychopharmacology 34, no. 9 (2020): pp. 1008-1020, https://doi.org/10.1177/0269881120916143, 1010.
2. Alan K Davis et al., "Survey of Entity Encounter Experiences Occasioned by Inhaled n,n-Dimethyltryptamine: Phenomenology, Interpretation, and Enduring Effects," Journal of Psychopharmacology 34, no. 9 (2020): pp. 1008-1020, https://doi.org/10.1177/0269881120916143, 1012-1017.
3. Alan K Davis et al., "Survey of Entity Encounter Experiences Occasioned by Inhaled n,n-Dimethyltryptamine: Phenomenology, Interpretation, and Enduring Effects," Journal of Psychopharmacology 34, no. 9 (2020): pp. 1008-1020, https://doi.org/10.1177/0269881120916143, 1011.
4. C D Nichols and D E Nichols, "DMT in the Mammalian Brain: A Critical Appraisal," Alius Research, 2019, http://www.aliusresearch.org/nichols-nichols-endogenous-dmt.html, 17-18.
5. Michael Pollan, How to Change Your Mind: The New Science of Psychedelics (S.l.: Penguin, 2019), 239.
6. Michael Pollan, How to Change Your Mind: The New Science of Psychedelics (S.l.: Penguin, 2019), 239.
7. Galen Ballentine, Samuel Freesun Friedman, and Danilo Bzdok, "Trips and Neurotransmitters: Discovering Principled Patterns across 6,850 Hallucinogenic Experiences," 2021, https://doi.org/10.1101/2021.07.13.452263, 5.
8. Galen Ballentine, Samuel Freesun Friedman, and Danilo Bzdok, "Trips and Neurotransmitters: Discovering Principled Patterns across 6,850 Hallucinogenic Experiences," 2021, https://doi.org/10.1101/2021.07.13.452263, 5.
9. Mahiko Konishi et al., "Shaped by the Past: The Default Mode Network Supports Cognition That Is Independent of Immediate Perceptual Input," PLOS ONE 10, no. 6 (2015), https://doi.org/10.1371/journal.pone.0132209, 1.
10. Mahiko Konishi et al., "Shaped by the Past: The Default Mode Network Supports Cognition That Is Independent of Immediate Perceptual Input," PLOS ONE 10, no. 6 (2015), https://doi.org/10.1371/journal.pone.0132209, 1.
11. Galen Ballentine, Samuel Freesun Friedman, and Danilo Bzdok, "Trips and Neurotransmitters: Discovering Principled Patterns across 6,850 Hallucinogenic Experiences," 2021, https://doi.org/10.1101/2021.07.13.452263, 17.
12. Henryk Bukowski and Claus Lamm, "Temporoparietal Junction," Encyclopedia of Personality and Individual Differences, 2017, pp. 1-5, https://doi.org/10.1007/978-3-319-28099-8_863-1, 2.
13. Henryk Bukowski and Claus Lamm, "Temporoparietal Junction," Encyclopedia of Personality and Individual Differences, 2017, pp. 1-5, https://doi.org/10.1007/978-3-319-28099-8_863-1, 2-3.
14. Pascal Michael, David Luke, and Oliver Robinson, "An Encounter with the Other: A Thematic Analysis of Accounts of DMT Experiences from a Naturalistic Field Study," October 2021, https://doi.org/10.31234/osf.io/8cdgs, 44-45.
15. Shahar Arzy et al., "Induction of an Illusory Shadow Person," Nature 443, no. 7109 (2006): pp. 287-287, https://doi.org/10.1038/443287a, 287.
16. Shahar Arzy et al., "Induction of an Illusory Shadow Person," Nature 443, no. 7109 (2006): pp. 287-287, https://doi.org/10.1038/443287a, 287.
17. Shahar Arzy et al., "Induction of an Illusory Shadow Person," Nature 443, no. 7109 (2006): pp. 287-287, https://doi.org/10.1038/443287a, 287.
18. O. Blanke, "Linking out-of-Body Experience and Self Processing to Mental Own-Body Imagery at the Temporoparietal Junction," Journal of Neuroscience 25, no. 3 (2005): pp. 550-557, https://doi.org/10.1523/jneurosci.2612-04.2005, 555-556.
19. Andrew Gallimore, "Andrew Gallimore, Building Alien Worlds - the Neuropsychological and Evolutionary Implications of the Astonishing Psychoactive Effects of N,N-Dimethyltryptamine - Philpapers," Journal of Scientific Exploration, January 1, 1970, https://philpapers.org/rec/GALBAW, 458-470.
20. Andrew Gallimore, "Andrew Gallimore, Building Alien Worlds - the Neuropsychological and Evolutionary Implications of the Astonishing Psychoactive Effects of N,N-Dimethyltryptamine - Philpapers," Journal of Scientific Exploration, January 1, 1970, https://philpapers.org/rec/GALBAW, 464.
21. Andrew Gallimore, "Andrew Gallimore, Building Alien Worlds - the Neuropsychological and Evolutionary Implications of the Astonishing Psychoactive Effects of N,N-Dimethyltryptamine - Philpapers," Journal of Scientific Exploration, January 1, 1970, https://philpapers.org/rec/GALBAW, 473-475.
22. Andrew Gallimore, "Andrew Gallimore, Building Alien Worlds - the Neuropsychological and Evolutionary Implications of the Astonishing Psychoactive Effects of N,N-Dimethyltryptamine - Philpapers," Journal of Scientific Exploration, January 1, 1970, https://philpapers.org/rec/GALBAW, 482-495.
23. Pascal Michael, David Luke, and Oliver Robinson, "An Encounter with the Other: A Thematic Analysis of Accounts of DMT Experiences from a Naturalistic Field Study," October 2021, https://doi.org/10.31234/osf.io/8cdgs, 14-16.
24. Pascal Michael, David Luke, and Oliver Robinson, "An Encounter with the Other: A Thematic Analysis of Accounts of DMT Experiences from a Naturalistic Field Study," October 2021, https://doi.org/10.31234/osf.io/8cdgs, 3-10.