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MORALITY BEFORE KNOWLEDGE

The influence of forest ecosystems on the well-being of surrounding communities: A philosophical perspective in eschatology through guattari's three ecologies

Aflah Fildzah Syarafina[1],*, Aisyah Nurul Ilmi[1], Chelsea Indri Valencia[1], Eka Kurnia Setiyawati[1], Muhammad Reza Al Rasyid[1], Nada Azka Maulida[1], Siti Shalu Ramadhani[1], Yahsya Naura Azka Herrnsdorf[1]

[1] *Department of Philosophy, Faculty of Humanities, Universitas Indonesia, Depok City, West Java 16424, Indonesia.*

*Correspondence: aflahfildzah2204@gmail.com

ABSTRACT

Background: This paper examines the influence of UI Forest on the well-being of surrounding communities through Felix Guattari's Three Ecologies perspective. The research addresses how the presence of UI Forest as an urban green space affects the physical and mental well-being of nearby residents, particularly amid the techno-scientific transformation era that threatens ecological balance. **Methods**: The study employs Guattari's Three Ecologies theory, which views ecology through three dimensions: mental, social, and environmental. Data was collected through in-depth interviews with 15 respondents, including local residents and UI Forest users, such as cycling communities and runners. **Finding:** The analysis utilizes Guattari's ecosophical approach, which integrates ethico-political and aesthetic aspects in understanding human-environment relationships. The findings reveal that UI Forest plays a significant role in enhancing community well-being by providing space for physical activities, contemplation, and social interaction. But, access restriction policies hinder UI Forest's potential in supporting community welfare. **Conclusion**: A country's happiness index is very important. The happiness index value is a consideration for policy makers in making regulations and implementing national programs. **Novelty/Originality of this article:** The novelty of this study lies in the multidimensional approach in analyzing the happiness index in Indonesia by considering factors that have rarely been comprehensively studied in previous studies.

KEYWORDS: green space; Guattari's three ecologies; UI Forest urban mental ecology; urban community well-being.

1. Introduction

Happiness In the modern era, the existence of green spaces has become a vital component often overlooked in urban planning. The Urban Forest of Universitas Indonesia (UI) represents one such green space located within an urban area, serving not only as a site for research and education but also functioning as a "lung" for the city of Depok, as a significant portion of the oxygen required by the surrounding community is sourced from this forest (Anugrah, 2024). The role of the UI Urban Forest extends beyond mere ecological functions; it also influences the well-being of nearby residents through various aspects, including physical and mental health as well as social relationships. The concept of well-

being refers to a state in which individuals feel healthy, happy, and prosperous overall (Shin et al., 2010). This well-being encompasses physical, mental, and social conditions that enable individuals to engage in productive activities with satisfaction. According to the World Health Organization (WHO), well-being is not merely the absence of disease but also involves an individual's ability to manage stress, cultivate positive social relationships, and realize their potential (Alyan, 2021). Therefore, the green space provided by the UI Urban Forest can play a crucial role in supporting these various aspects through the social and psychological benefits it offers.

Well-Being is also related to how humans interact with their surrounding environment. Supportive environments, including clean and lush green spaces, can enhance an individual's mood, reduce anxiety, and encourage social interactions. This research aims to demonstrate that access to green spaces significantly contributes to improvements in physical and mental health and helps foster more harmonious communities (Ninin et al., 2020; Park et al., 2011; Salma et al., 2018). Consequently, the presence of the UI Urban Forest serves as a vital space that can enhance the quality of life for the surrounding community.

The ecological condition of the Earth is currently in a precarious state; on a national scale, Indonesia is experiencing a profound ecological crisis (Fishel, 2023). The ecological perspective articulated by Guattari extends beyond the environmental domain, encompassing social and mental realms as well. From the standpoint of Guattari's ecosophy, socio-political, mental, and environmental conditions are interrelated (Kryshtanovych et al., 2021). It is evident that the political situation in Indonesia today reflects an ecological crisis in Guattari's sense, particularly manifested in the rampant capitalization of green spaces in Jakarta. This capitalization primarily benefits oligarchs and adversely affects the mental condition (psyche) of the populace, as many individuals find themselves unable to access green spaces freely.

This article will discuss the impact of the UI Forest on the mental condition (subjectivity) of the surrounding community from the perspective of Guattari's ecosophy, analyzing the relationships between the environmental (UI Forest), social (political, economic), and mental (subjectivity of the surrounding community) dimensions. Well-being is more appropriately termed as well-becoming when viewed through the lens of Guattari's ecosophy.

1.1 The needs and well-being of the community

On the planet we inhabit, we are witnessing an intense period of techno-scientific[1] transformation, hence it is unsurprising that humanity urgently seeks answers due to the threat posed to ecological stability (Guattari, 2000). In contemporary times, we frequently observe superficial progress driven by widespread advancements in science and technology. Whether through advertisements for latest technological innovations or invitations to try newly released attractions at recreational venues, numerous possibilities exist for enhancing human activity potentials, yet these efforts ultimately undermine the relationship between humans and nature (Guattari, 2000). One clear manifestation of this issue is seen in the case of Felfest UI, originally part of the UI Forest with its majestic canopy trees, but later capitalized upon under the pretext of developing public space. As a result, we must reassess the fundamental meanings underlying human needs and well-being because, ultimately, human life itself has been reduced to mere consumption alone (Guattari, 2000). Moreover, it appears increasingly challenging for people to escape a consumptive lifestyle.

Psychologically, humans cannot escape their needs, as these needs serve as a fundamental motivation for individuals to possess an intrinsic drive (Maslow, 1970). However, to uncover a deeper meaning regarding human needs, we cannot rely solely on the psychological interpretation of the term "needs." Therefore, needs fundamentally require two interpretations: first, needs do not always necessitate an endpoint and meaning in both constitutive and instrumental terms. Second, we must also define the relationship

between the meanings of fulfilling constitutive and instrumental needs and the types and subtypes of those needs (Fletcher, 2015). With this definition in place, we can ultimately conclude that needs encompass everything required for the sustenance and well-being of human life. Furthermore, once we define needs, we can also understand that they highlight the importance of psychological health. Psychological needs—such as the need for self-esteem, ownership, personal development, and others—are crucial for mental health because these needs play a significant role in psychological well-being (Fletcher, 2015). Without fulfilling these needs, an individual may lead a life devoid of meaning due to a lack of purpose or goals.

To maintain psychological health as previously discussed, individuals often prioritize their well-being through various aspects (Bielinis et al., 2018; Ciofalo et al., 2022). This refers to the overall quality of life experienced by an individual. In this context, these aspects can be divided into two elements: subjective and objective. Subjectively, well-being is often measured through personal assessments of happiness, life satisfaction, and emotional conditions. In contrast, objective measurements of well-being encompass factors such as health status, income level, and access to education (Fletcher, 2015). Therefore, there should be a middle ground between humanity and nature to foster a beneficial mutualism between human experience (subjectivity) and its natural phenomena.

According to Guattari's ecosophical perspective, well-being cannot be assessed solely through specific parameters based on objective scientific approaches situated in the molar realm, such as GDP or Maslow's hierarchy of needs. Instead, it necessitates a deeper examination at the molecular level (desire, sensitivity). Guattari advocates for an aesthetic inspiration in the practice of analyzing well-being, suggesting that we should not dismiss all scientific parameters; rather, they need to be rearticulated in our analyses—adopting a constructivist and playful approach. In other words, to examine the physical and spiritual well-being of individuals, as well as collectives, one cannot adopt a reductive perspective without incorporating creative innovation. The individual or subject, in the context of their existence within social and environmental relations, is not formed by a singular vector of subjectification. The subject is not a straightforward issue but an assemblage of components of subjectivity that continuously evolve without end. Therefore, well-being can be referred to as well-becoming.

2. Methods

In examining the influence of the UI Forest on community well-being through Guattari's Three Ecologies, the methodology employed in this study is both reflective and critical, aiming to capture the intricate relationships between urban green spaces and the mental, social, and environmental dimensions of well-being. Utilizing a qualitative approach, We conducted semi-structured interviews with 15 participants, including local residents and active users of the UI Forest, such as cyclists and runners. This sampling strategy was intentionally designed to ensure a diversity of perspectives regarding the forest's impact on their physical health, mental state, and social interactions. The interviews were analyzed using thematic analysis, allowing for the emergence of key themes that reflect participants' experiences and perceptions. This method not only facilitated an in-depth exploration of subjective narratives but also aligned with Guattari's ecosophical framework, which emphasizes the interconnectedness of ecological health, social relations, and individual subjectivity.

However, this methodology is not without its limitations. The relatively small sample size raises questions about the generalizability of findings; yet it provides rich qualitative insights that quantitative methods may overlook. Additionally, while We aimed to mitigate researcher bias through reflexivity during data collection and analysis, the subjective nature of qualitative research inherently invites challenges in interpretation. By situating the findings within Guattari's broader critique of capitalism and its impact on ecological and social systems, this study underscores the urgent need for policies that promote equitable access to urban green spaces. Ultimately, this research not only highlights the significance

of the UI Forest in enhancing community well-being but also calls for a re-evaluation of urban planning practices that prioritize ecological sustainability alongside social equity.

3. Results and Discussion

3.1 Three ecologies (ecosophy)

Results Guattari's ecological perspective extends beyond the environment to encompass subjectivity. Bateson's view arises from his critique of Darwinian natural selection, which focuses solely on organisms. For Bateson, natural selection involves not only organisms but also the relationships between organisms and their environments. In other words, the unit of survival consists of both the organism and its environment. Capitalism decodes the concept of natural selection, transforming it into an axiom regulated within the framework of free market ideology. Building on Bateson's ideas, Guattari seeks to elucidate that our adversary is post-industrial capitalism, which he refers to as IWC (integrated-world capitalism).

> *"As Gregory Bateson points out, for too long humanity has adopted' survival of the fittest' as its maxim - and this is taken to its extreme by free-market competition - whereas if humanity is to survive it must reconfigure this goal into that of ' survival of organism plus environment"* (Guattari, 2009)

Guattari opens his thoughts on ecosophy by outlining an ecological problem of his time (and also of the present), namely the ecological disequilibrium on the surface of the Earth, which could lead to the extinction of life due to rapid techno-scientific transformations. The extinction that Guattari refers to encompasses not only the extinction of organisms but also that of subjectivity—both material and immaterial (organic entities and incorporeal bodies; between the molar and molecular). Guattari believes that political leaders and institutions are unable to fully comprehend the complexities of the ecological crisis (stemming from capitalism and the acceleration of techno-scientific development) that we face. They tend to focus only on the most apparent issues (such as pollution) without considering the broader relationships at play. Guattari offers a new perspective for addressing the ecological crisis, which he terms "ecosophy," articulated through an ethico-political framework. This thought is rooted in Bateson's definition of ecology and his critique of Darwinian natural selection, which Guattari develops into a continuous relationship between nature and culture. Ecosophy comprises three interconnected ecological domains: the environment, social relations, and human subjectivity (mental ecology).

Guattari proposes that the solution to the ecological crisis lies in emphasizing political authenticity, as well as social and cultural revolution, aimed at reshaping both material and immaterial objectives. This revolution occurs within both molar and molecular realms. In Guattari's terminology, the molar refers to visible power relations on a large scale (such as institutions and norms), whereas the molecular pertains to the unseen aspects, such as sensitivity, intelligence, and desire. In other words, this revolution must encompass both domains in order to effectively combat the ecological crisis facing our planet. A key point that Guattari wishes to emphasize with his summary of the three ecologies (environmental, social, and mental) is that ecological issues do not solely occur within the environment; they also manifest in the mental realm, specifically in terms of subjectivity. Within the context of subjectivity, there exists the problem of serialism2 or homogeneous stereotypes in human activities. Guattari observes that there are two dominant modes of power (capitalism) that perpetuate this process of homogenization on a global scale as follows. (1) global market, the global market undermines specific value systems (local wisdom). It decodes these values and places them within a single equivalent field. In short, capitalism decodes qualitative values that are plural into a single equivalent field, which is then recoded in quantitative terms, such as material assets, cultural assets, and so forth. (2) Military, social relations and

international relations (on a global scale) are governed by military power, including armies, nuclear weapons, and other forms of military might.

Both figures represent authoritarian forces that "regulate" by standardizing modes of existence in human activities. The ecological condition on the Earth's surface, dominated by capitalism, has led to the loss of antagonism. For Guattari, there is no longer a distinction between West and East, bourgeois and proletariat, North and South, or first-world and third-world countries. All ways of life have been serialized—standardized—by capitalism and the rapid development of techno-science into a state of homogeneity. From this perspective, Guattari identifies a paradox in contemporary life: on one hand, techno-scientific advancements assist in addressing the ongoing ecological crisis; on the other hand, there are no practices capable of organizing social power relations to resolve the ecological crisis stemming from existing technological wealth (Peters et al., 2022).

The ecosophical perspective does not exclude collective goals in the context of ecological crises, such as world hunger and discrimination against marginalized groups. However, in its articulation, ecosophy avoids reducing ecological crises to a single viewpoint, thereby stereotypical order-words in practice. Social ecosophy, in practice, aims to reconstruct (reinvent) the ways we live in social contexts—interacting with social units such as family and friends within specific social situations (homes, workplaces, etc.). The practice of social ecosophy does not take the form of general recommendations (a template) for social living; rather, it is an effort to reconfigure the modalities of group-being. This practice is carried out communicatively and involves existential mutations motivated by subjectivity.

Mental ecosophy, operating within the realm of relations between the subject and the body, between the material and the immaterial, mental ecosophy parallels social ecosophy in its endeavor to reconceptualize standardized templates in the context of unceasing existence. Mental ecosophy serves as a method to counteract serialism and the standardization imposed by mass media. Specific principles of mental ecology include an existential territorial approach, which relates to pre-values. Guattari describes this principle using the logic of "included-middle," wherein good and bad are considered as intertwined (without prior valuation). Mental ecology represents a brutal deterritorialization of the psychic and social spheres, manifesting as a deconstruction of violence. For Guattari, this deconstruction, in relation to the psychic and social within an ethical-aesthetic paradigm, constitutes an attempt at resingularization.

> "*Rather than tirelessly implementing procedures of censorship and contention in the name of great moral principles we should learn how to promote a true ecology of the phantasm, one that works through the transference, translation and redeployment of their matters of expression*" (Guattari, 2009).

The development of scientific inquiry into nature, which distances subjectivity to achieve objective knowledge, has successfully positioned humanity in its current state with the technologies that have been developed. In environmental ecology, a superficial understanding that removes human intervention—subjectivity—fails to resolve the ecological crisis on the surface of our planet (Boivin et al., 2022; Justus, 2021; Okpoko, 2022). However, on one hand, this distancing approach can provide us with knowledge to address ecological crises. We gain insights into how non-human organisms interact with their environments; yet, on the other hand, the distancing of humans within environmental ecology cannot capture the complexities of the ecological crisis as perceived by Guattari—it represents only one subseries of ecosophy. In other words, environmental ecology posits that two poles of extreme consequences may arise. The poles referred to by Guattari are between major disasters and flexible evolution. An example of a major disaster is the Chernobyl tragedy; flexible evolution involves opening new conceptions of nature that may seem counterintuitive from a human perspective, such as butterflies tasting with their feet, which contrasts with human perception that relies on taste through the tongue.

For Guattari, environmental ecology is better referred to as "machinic ecology" because capitalism has decoded values and knowledge about the environment into axiomatic forms for the sake of human evolution (man over nature). Similar to Darwin's observations on natural selection, this decoding is transformed by capitalism into a free market framework.

Guattari's reflections on the ecological conditions of his time reveal the impossibility of returning to the past and surviving. The state of our lives, shaped by techno-scientific advancements, is irreversible. Guattari draws an analogy between our current condition and the impossibility of reversal with an experiment conducted by Alain Bombard. Bombard experimented by placing an octopus in two different seawater conditions: one reflecting the current polluted state of the ocean, and the other pure and clean water. The outcome of this experiment was that the octopus placed in clean water sank and soon perished. For Guattari, nature cannot be separated from culture—nature is inseparable from the social.

The conclusion of this section is that our adversary in the ecological crisis on the surface of the Earth is Integrated World Capitalism (IWC), which decodes all qualitative values of human existence into a single equivalent field that is subsequently crystallized into axiomatic forms. The techno-scientific developments that Guattari observes possess the potential to liberalize human capacities but are appropriated by capitalism solely for profit, neglecting the adverse consequences for nature, social structures, and mental well-being (psyche). For Guattari, the issue of extinction encompasses unique subjectivities, not merely biological organic entities. This unique subjectivity is referred to by Guattari as singularity. To address the ecological crisis on the surface of the Earth, a new perspective is required to combat the homogenization brought about by IWC. The perspective proposed by Guattari is an ethico-political articulation or ecosophy, which consists of three interconnected dimensions: social, mental, and environmental.

Then, assemblages *(Bhinneka Tunggal Ika),* assemblages etymologically derive from the French term agencement, which is often translated as "arrangement" or "putting things together" (Wise, 2014). Agencement is not a term used to refer to a mere 'collection' or set; rather, it denotes the process of assembling into a unity. This concept is emphasized by Deleuze and Guattari, who focus on the process of becoming rather than static, hierarchical identities (as it is—full stop). Assemblages serve as a concept employed by Guattari to underscore the contingency and dynamics of an ongoing process of formation within a structure. The contingency of assemblages can shift based on the elements or components that constitute them. In summary, assemblages, as developed by Guattari, refer to a process leading to the formation of a unity, emphasizing continuity (process) without an endpoint (telos), as well as the heterogeneous elements that interrelate within the assemblage while remaining distinct (*Bhinneka Tunggal Ika*).

In the context of well-being and the environment, assemblages can be applied as a new paradigm inspired by Guattari's ethical-aesthetic ideals, which advocate for the formation of a new awareness regarding our relationships with the environmental, social, and mental realms. This awareness, referred to by Guattari as subjectivity, represents an organic form in the establishment of new existential territories concerning the interplay between the mental (subject), social, and environmental dimensions. Within the concept of assemblages, there is no hierarchy among the environmental, mental, and social aspects; all are components situated on an equal plane. With this paradigm, Guattari believes that we can address the contemporary ecological crisis on Earth. By reconstructing our relationships with ourselves—mentally—alongside our social and environmental interactions, and by fostering an awareness of both the virtual and actual realms, as well as actualizing our virtual and actual potentials, we can open up new modes of existence that lie beyond previously held cognitive awareness.

Analogous to contemporary cosmological science, there is no center to our universe; our relationships with the mental, social, and environmental realms do not possess a pinnacle in the food chain—we are not above nature; nature is not above us; we all constitute a distinct unity (*Bhinneka Tunggal Ika*). All things are interconnected on an equal plane. Through the concept of assemblages, and our awareness of the relationships among the three ecological dimensions (mental, social, and environmental), well-being transcends

individual concern to become a collective (social and environmental) focus. Furthermore, by fostering an awareness of differences among entities and reconstructing concepts from both molar and molecular domains, Guattari believes we can address the ecological crisis facing our planet—avoiding the serialization of being and, ultimately, the extinction of biological organisms.

The Concept of ecosophy and subjectivity, for Guattari, Integrated World Capitalism (IWC) and its weapon, mass media, homogenize subjectivity. The existence of humanity, with all its uniqueness—what Guattari refers to as singularity—is under threat of extinction. Guattari urges us to break free from the dominance of subjectivity imposed by capitalism by affirming the differences between ourselves and others. Subjectivity is not a simple concept in Guattari's thought. He rejects the cogito conception of subjectivity as proposed by Descartes. For Guattari, the subject is not merely a concept of becoming (to-be, fixing into being), as he posits that there are modes of existence beyond consciousne. The methods employed in Cartesian thought regarding the subject tend to revolve within a conceptual realm without any actualization in existential territory.

According to Guattari, the above conception of the subject arises from a scientific paradigm that emphasizes a referential or extensional relationship. The subject is defined and understood from a reductive "objective" framework. Guattari offers an alternative perspective on the concept of the subject. He distinguishes between the concept of the subject (individual) and subjectivization. For Guattari, the vectors of subjectivization consist of a singular vector, yet it represents an assemblage of 'components of subjectivity.' In other words, from Guattari's viewpoint, the subject cannot be reduced to a single perspective, as is often the case in the practices of Freudian and Lacanian psychoanalysis. The subject is in a constant state of becoming. The components of subjectivization operate within reality like a terminal in a process of becoming that encompasses everything, including the environment, stones, soil, forests, laptops, self, friends, homes, socio-economic conditions, and so forth (in short: all things).

Starting from this issue, Guattari critiques the scientific paradigm (psychoanalysis) for its reductive understanding of the concept of subjectivity and offers a solution through an ethical-aesthetic paradigm. In the ethical domain, Guattari argues that the ethical responsibility concerning the concepts of subject and subjectivity extends beyond the realm of science (psychoanalysis) to encompass all areas such as education, sports, culture, media, fashion, and any domain that intervenes in shaping the psychic conditions of individuals and collectives. In the aesthetic domain, Guattari emphasizes that all concepts, particularly within psychoanalysis, must undergo continual rearticulation and reinvestment in practice. Failure to do so risks entrapment in a deathly repetition that could lead to serialization or standardization in human existence.

Guattari's ideas in his concept of the three ecologies are closely related to the conditions of well-being, which open new potentials for the existence of the community around the Universitas Indonesia (UI) and frame subject formation as an endless process of becoming. This notion is reinforced through in-depth interviews with several visitors to the UI Forest, as local residents, and surveys conducted via Google Forms among students of Universitas Indonesia who have encountered the Urban Forest of UI. The findings indicate the crucial role of the UI Forest and its positive correlation with the well-being of the surrounding community, as evidenced by the results of both the surveys and the in-depth interviews.

3.2 Survey and interview results

In conducting this research, we employed a survey method using Google Forms and conducted interviews with residents engaged in activities around Jalan Cinta adjacent to the Urban Forest of UI. We also distributed surveys via Google Forms to students from Universitas Indonesia across various faculties, utilizing quota sampling to target one or two respondents from each faculty. The results of these surveys and interviews serve as supporting data demonstrating the close relationship between the Urban Forest of UI and the surrounding community, analyzed through Guattari's Three Ecologies framework with

a lens of Assemblages. The following are charts and graphs intended for several respondents among the students of Universitas Indonesia.

First, gender, the chart illustrates the gender distribution of participants in the survey regarding the Urban Forest of UI, with a majority identifying as female, accounting for 66.7% (n=14). Second, the chart beside illustrates the age distribution of respondents participating in the survey about the Urban Forest of UI. The majority of respondents are 21 years old, comprising 38.1% (n=8). Third, the chart adjacent illustrates the living arrangements of respondents, with a majority residing in boarding houses or dormitories, accounting for 61.9% (n=13). Fourth, the chart illustrates the residences of several respondents, with the majority living in Depok, accounting for 70% (n=14). Fifth, the following graph depicts the distribution of faculties represented by respondents who participated in the survey. The average composition of respondents reflects a proportional representation across each faculty, with three respondents from the Vocational Education Program. Sixth, the chart indicates that out of 21 respondents, 13 individuals (61.9%) have visited the Urban Forest of UI, while 8 respondents (38.1%) have never entered the Urban Forest but are still aware of its existence.
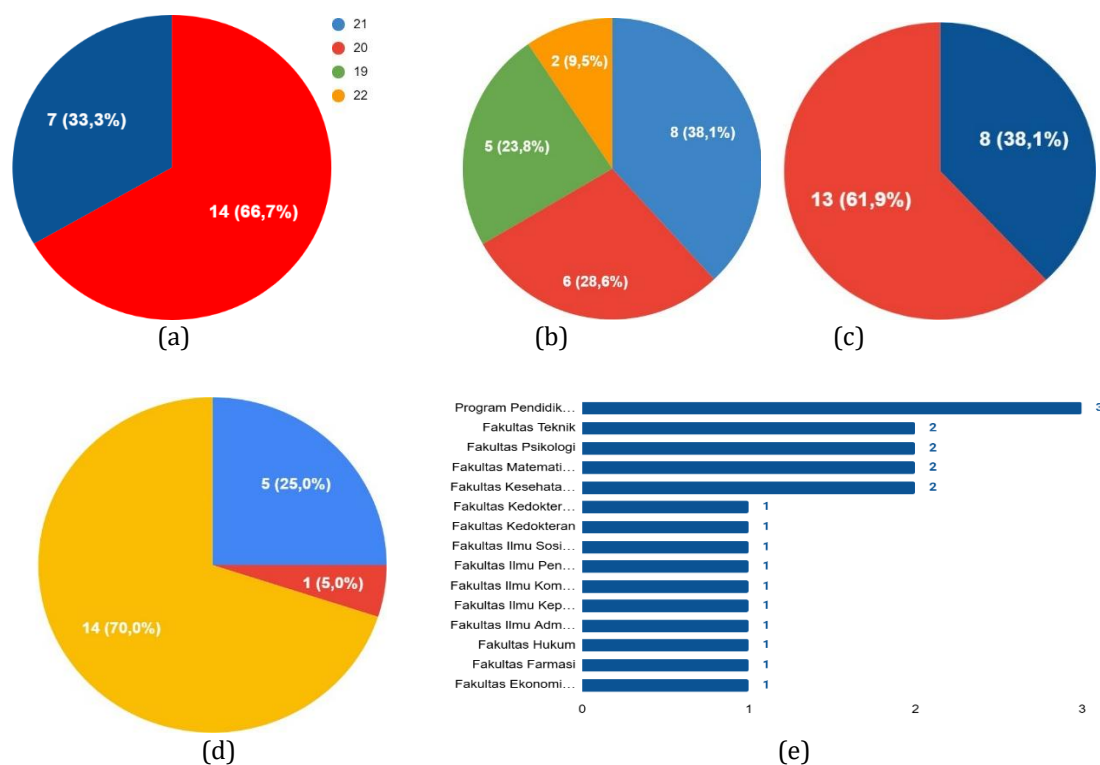

(a)   (b)   (c)

(d)   (e)

Fig. 1 Survey Interview Result: a) genderl; b) age; c; residence; d) domicile; e) faculty

3.3 The impact of the UI urban forest on the well-being of the surrounding community

Based on the diagram above, there is a clear interconnection between the impact of the Urban Forest of UI and the "feelings" experienced by local residents when visiting the area or simply exercising nearby, as visualized in the Pareto Chart. According to the principle that "80% of the effects are caused by 20% of the causes," this perspective differs in examining the relationship between the impacts of the Urban Forest of UI on the subjects who participated in the survey and interviews. Therefore, it can be concluded from the diagram that the impact of the Urban Forest of UI evokes feelings of freshness and a variety of sensations upon entering the forest. This sense of freshness and emotional response provided by the Urban Forest serves as an indication of the connection between subjects and nature as a process contributing to the well-being of the surrounding community.
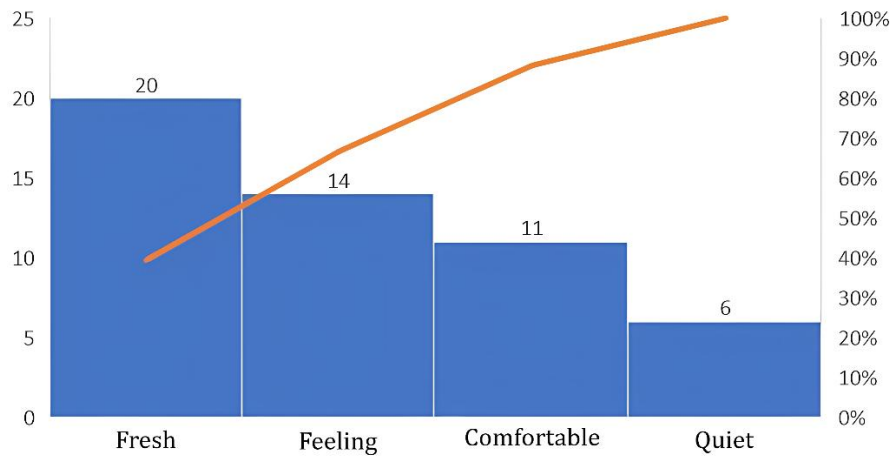
Fig. 2 Impact of the Urban Forest of UI and the "feelings" experienced by local residents

These findings are not based on 'forest bathing' experiments to demonstrate that the Urban Forest of UI positively affects physical and mental well-being. This is due to not all local residents and students from UI having visited the forest, coupled with time constraints. However, it can be asserted that the UI Forest offers significant benefits for urban well-being. One aspect of well-being pertains to mental health, which encompasses "salubrious or therapeutic effects on mental health, mental development, and personal fulfillment when individuals are reconnected to a natural environment" (Grassini, 2022). This aligns with how the above diagram reflects conditions perceived regarding physical health, mental well-being, and sensations experienced by respondents (local residents) as they traverse paths adjacent to or within the UI Forest, representing a reconnection with nature.

3.4 Respondents' feelings upon entering the UI forest and walking along the paths surrounding the UI Urban Forest

The Table 1. illustrates individuals' perceptions of their exercise experiences in the UI Forest based on four categories: comfort, freshness, tranquility, and feelings. Respondents perceive the environment as comfortable due to its safety, supportiveness, and superior air quality. The UI Forest also provides a refreshing atmosphere with clean air and lush greenery. In terms of tranquility, the presence of trees and natural sounds creates a peaceful ambiance distinct from urban noise. Additionally, feelings of happiness and relief emerge as a result of engaging in physical activity in an oxygen-rich environment, helping to alleviate stress caused by work and daily life pressures.

Tabel 1. Interview results from local residents

Comfortable (n=5)	We are feeling at ease, as we engage in monotonous work activities from Monday to Friday, we force ourselves to exercise on Saturdays and Sundays. We always choose to exercise here (referring to the UI Forest). "Comfortable"
	"From the perspective of runners, it is certainly more comfortable in terms of safety, and it is clear that from a psychological standpoint, it will undoubtedly provide assistance.
	"It is more comfortable, cooler, and the air quality is distinctly different."
	"It is enclosed, comfortable, safe, and supportive, with environmental factors also contributing to its coolness."
Fresh (n=4)	"As the lungs of the Earth, green environments produce oxygen."
	"The air is so fresh and far from pollution."
	"Entering the UI Forest feels refreshing."

	" After exercising, I feel more rejuvenated. After a week of daily routines, entering the UI Forest is truly refreshing."
Quite (n=2)	"The atmosphere is tranquil and filled with numerous trees."
	"Listening to the sounds of nature; in Depok, there is no silence, but upon entering the UI Forest, one can directly hear the sounds of nature and experience tranquility."
	"The ambiance is most enjoyable."
Feelings (n=4)	"It feels pleasant; in the morning, it is nice and cool, and the atmosphere is different."
	"We are quite happy."
	"Before the regulations were implemented, we were happy; however, after the rules were established, we from the cycling community felt disturbed. Previously, all communities gathered together, which affected our happiness."
	"We all work from Monday to Friday, facing hectic office and household issues; some are even contemplating divorce. We are overwhelmed by these problems until we reach a point of boredom. When you enter the forest, the abundance of oxygen alleviates your stress. Essentially, the UI Forest serves as a remedy for the stress of working individuals, providing relief from fatigue."
	"It feels great; exercising at 7 AM is undeniably refreshing. Even at 8 AM, it still feels cool."

The Table 2. presents survey results on the feelings and atmosphere generated by the presence of the UI Forest, comparing responses from individuals who have entered the forest and those who have not. Among those who have entered, feelings range from tranquility and freshness to a sense of isolation and even slight fear due to unknown wildlife. The atmosphere is described as serene, with respondents appreciating the grandeur of nature and the humbling experience of being surrounded by towering trees. For individuals who have never entered the forest, perceptions focus on its role in improving air quality, providing a green open space, and enhancing motivation for physical activity due to the cooler and more comfortable environment. The overall sentiment highlights the UI Forest as a refreshing and essential ecological space within an urban setting.

Table 2. Survey results: feelings and atmosphere generated by the presence of the ui forest

Categories	Feelings (n=9)	Atmosphere (n=12)
Having entered the UI Forest (n=13)	"It feels isolated from the outside." "Happy yet fearful." "Tranquility." "Fresh." "My heart feels full with a type of feeling that cannot be filled by humans. Certainly, the joy of the heart from encountering various creatures beyond humans is absolute." "Yes, the UI Forest is more chilling because I don't know what animals are there; I once encountered strange bushes and thought it might be a snake."	"It feels more tranquil because I enjoy stress and the greenery is refreshing." "In the UI Forest, I can truly appreciate the grandeur of other beings (trees and plants) amidst an environment filled with arrogant people. Within the UI Forest, humans appear so small compared to the humble trees whose branches reach high. This reminds humanity that we are not the center of the world, but merely a small part of the ecosystem itself." "This is perhaps because the UI Forest area has more trees, making it feel cooler and fresher upon entering."
Never having entered the UI Forest	"The air is fresher" (n=3) "Healthy air, green open space"	

(n=8)	"Depok is a densely populated city; thus, the UI Forest serves as the heart of life in Depok, making it more lush and providing fresh air."
	"Motivation to exercise (such as walking, running, or cycling) is enhanced by the presence of the UI Forest, as it makes physical activities more enjoyable due to the temperate air."
	"Comfortable, cool, and refreshed" (n=2)
	- "Cool" (n=2)
	"Cool and lush, filled with green trees and plants" (n=2)
	"Comfortable, due to the abundance of trees that make the air less hot compared to outside the UI area." (n=1)

The Table 3. illustrates the perceived meaning of the UI Forest among individuals who have entered it, categorized into two themes: "Source of Life" and "Place or Space." The UI Forest is recognized as a vital ecological asset, supporting greenery sustainability and serving as a source of clean air, particularly in the Jabodetabek region. It is often referred to as "the lungs of UI," highlighting its environmental importance. Additionally, the forest is perceived as a meaningful space, described as "The Forest at UI," "A Space for Exploration," and "A Room for Observing Others," emphasizing its role as both a natural sanctuary and a place for discovery and social interaction.

Table 3. Meaning of the UI Forest

Categories	Source of Life	Place or Space
Having entered the UI Forest (n=13)	"The UI Forest serves as a crucial support for the sustainability of greenery in the UI area and in Depok itself" (n=1). "As a source of clean air and a remnant of nature that remains pristine in the Jabodetabek region, it is essential to preserve" (n=1). "The lungs of UI" (n=5).	"The Forest at UI" "A Space for Exploration" "A Room for Observing Others" "A New Space"

According Furthermore, the results of the interviews and surveys still consider the relationship with nature from an anthropocentric framework, focusing on subjects and objects. Guattari offers an analysis of humanity in a manner that promotes an integrative relationship with the environment in which it exists, articulated through the practical aspects of human daily life. Ecosophy encompasses the awakening of human conditions within the environment, emphasizing the formation of a new humanity based on three ecologies: mental, social, and environmental. In this context, the UI Forest plays a crucial role in this framework, particularly within mental ecology. Mental ecology refers to how humans process, comprehend, and construct meaning in their minds, as Guattari states:

"*The mental ecosophy, in turn, will be led to reinvent the subject's relationship with the body, with the ghost, with the time that passes, with the 'mysteries' of life and death. It will be led to look for antidotes for media and telematics uniformity, fashion conformism, manipulation of opinion by advertising, polls, etc.*" (Guattari, 2009)

Nearly all respondents indicated that the UI Forest is their preferred destination for exercise due to the comfort it provides. Two mothers we interviewed stated that they chose the UI Forest because of its cool air and distance from pollution, which helps refresh their minds. They even mentioned that the clean and fresh air in the UI Forest allows them to engage in contemplation. Additionally, we interviewed a gentleman who was also exercising in the vicinity of the UI Forest. He expressed that exercising there serves as a form of escapism from the monotony of work during weekdays. The UI Forest is again favored for its clean and lush environment, in contrast to Gelora Bung Karno (GBK), which is relatively arid. The profound role of the UI Forest in mental ecology is further evidenced by another

interview with a resident named Kukel, who lives near the UI Forest and was also exercising in the area at the time. Her statement, "I feel happy when I am about to exercise. The grandeur of God makes me wonder how I could find such a place," illustrates how interaction with the forest generates spiritual and reflective moments. Similarly, another respondent from Margonda reported experiencing both motor and emotional transformation before and after entering the UI Forest area. He noted that he feels happier upon entering the UI Forest because it is more comfortable, cooler, and he perceives a distinct difference in air quality.

The UI Forest fosters a close interaction between humans and nature, making it a vital component of the ecological landscape in the Depok area. One of our respondents emphatically stated that the UI Forest serves as a primary source of oxygen. This assertion was further supported by another respondent from Margonda, who remarked, "There are no green areas around Depok except for UI, so it can help," when asked about the impact of the UI Forest on mental and physical health. A different perspective was provided by a professional athlete we interviewed while he was running in the UI Forest. He offered a unique viewpoint on the forest as an alternative space for physical activity. In contrast to the "crowded" and open urban environment, the UI Forest is perceived as "comfortable" and "enclosed," providing optimal conditions for exercise. This aligns with Guattari's notion that humans are not separate from their environment but are an integral part of it. Environmental health directly impacts human well-being, and conversely, environmental changes—what Guattari refers to as environmental ecology—whether due to natural processes or human intervention, will have profound effects on social structures and individual mental conditions.

Not only in terms of mental ecology, but the UI Forest also plays a significant role in social ecology, specifically in how humans build, manage, and enhance their social relationships at various levels, from small communities to global societies. Referring to interviews with the cycling community at UI, their sporting activities in the UI Forest allow them to expand their network by meeting new friends who share similar hobbies. Beyond exercising, they also engage in other activities such as conversing and cleaning up litter in the area. In other words, based on interviews with local residents around UI, their conception of the relationship with their environment—both mental and social—remains constrained by an anthropocentric paradigm characterized by a hierarchical subject-object relationship.

However, nowadays, regular visitors to the UI Forest encounter a new issue: the closure of access to the forest for the public. This regulation is displayed on a large banner at one of the entrances to the UI Forest. According to the cycling community we interviewed, this rule severely undermines the sustainability of their community, which regards the UI Forest as a venue for activities beyond mere exercise. The community expressed that they engage in activities and form bonds within the UI Forest as a means of stress relief from various issues ranging from work to family matters. The UI Forest serves as a remedy, where the fatigue they experience dissipates upon entering its confines. Therefore, when access to the UI Forest is restricted, they report that this significantly impacts their happiness.

In the Government Regulation of the Republic of Indonesia Number 63 of 2002 concerning Urban Forests, Article 27 addresses utilization. In Clause 1, it states that Urban Forests may be utilized for purposes such as nature tourism, recreation and/or sports; research and development; education; conservation of genetic resources; and/or the cultivation of non-timber forest products. Furthermore, Clause 2 stipulates that the utilization of urban forests as mentioned in Clause 1 must not interfere with the functions of urban forests as outlined in Article 3.5

The Government Regulation of the Republic of Indonesia clearly permits the conduct of sporting activities as a utilization of urban forests (Janeczko et al., 2020; Rajoo et al., 2021; Simkin et al., 2021). In the context of the UI Forest, which is classified as an urban forest, it can be asserted that the UI Forest is suitable for such activities. However, the actual conditions within the administration of UI do not align with the regulations set forth by the Indonesian government, where there are prohibitions against activities within the UI Urban

Forest. From Guattari's perspective, the issue of restricted access to the UI Forest can be understood as a form of ecological capitalization that neglects the construction of social and mental ecology. Within the framework of social and mental ecology, the closure of access to the UI Forest represents a practice of deterritorialization that strips away human subjectivity. Guattari would perceive this administrative action as a reduction of living space to mere objects of bureaucratic management, thereby losing its subjective dimension. When the UI Forest is regulated solely through administrative and managerial logic, it forfeits its socio-psychological functions. The community that has long regarded the UI Forest as a space for therapy and mental recovery is forced to become alienated from an ecosystem that has served as their "home" for discovering their own subjectivity. Guattari would critique this situation as a manifestation of capitalist power that transforms living spaces into controlled zones, separating humans from their environment, despite his assertion that humans and their environments are not distinct entities. This illustrates how capitalism operates by decoding the UI Forest into a commodity, a property for profit justified by the concept of free markets. Ethical considerations are overcoded by capitalism, clearly reflected in the contradiction between Indonesian government regulations and UI's pursuit of profit from the UI Forest.

3.4 Assemblages and ecological interconnectivity of the UI Forest

Assemblages, as a concept developed by Guattari and Deleuze, represent an approach that views reality as a collection of complex and dynamic relationships rather than merely an aggregation of static elements (DeLanda, 2016). In the context of ecology, assemblages provide a perspective that transcends traditional dichotomies between nature and culture, subjects and objects (Guattari, 2000). This perspective is particularly relevant in analyzing the UI Forest as an ecological assemblage that integrates environmental, social, and mental aspects within a complex network of relations.

As emphasized by Guattari in The Three Ecologies (2000), the contemporary ecological crisis cannot be understood in isolation from social and mental crises. He asserts that "It is not only species that are becoming extinct but also the words, phrases, and gestures of human solidarity" (Guattari, 2000). This observation is clearly reflected in the context of the UI Forest, where interview and survey data indicate that this green space forms an ecological assemblage involving three interrelated dimensions. In the dimension of environmental conservation (environmental ecology), the UI Forest represents what Guattari refers to as 'machinic ecology'—a system that encompasses not only biological-material relationships but also technological-social ones (Guattari, 2000). This is evident in how the UI Forest functions not merely as the "lungs of the city" in a biological sense but also serves as a catalyst for broader environmental awareness. As Buchanan (2021) articulates, contemporary ecological assemblages always involve complex interactions between natural systems and socio-technological systems.

Through our interview and survey data, it becomes apparent that the UI Forest constitutes an ecological assemblage involving three primary dimensions. First, within the dimension of environmental conservation (environmental ecology), the UI Forest does not merely exist as a physical green space; it acts as a catalyst for environmental consciousness. This is illustrated by respondents' statements affirming that the presence of the UI Forest encourages them to be more mindful of environmental preservation. One respondent noted, "There are no green areas around Depok except for UI, so it can help," highlighting awareness of the importance of environmental conservation. In the dimension of collective consciousness (social ecology), the UI Forest transforms into a social space that fosters the formation of environmentally conscious communities. Communal activities such as group exercise and environmental discussions create a strong sense of collective awareness. This is reflected in statements from the cycling community: "We are quite happy... before there were regulations, all communities gathered together," indicating how physical space transforms into meaningful social space.

In the dimension of mental transformation (mental ecology), interaction with the UI Forest leads to significant changes in individual consciousness. Respondents reported experiencing a shift in perspective regarding the human-nature relationship. As one respondent articulated, "In the UI Forest, humans feel so small compared to the humble trees whose branches reach high," indicating a transformation of awareness from an anthropocentric viewpoint to a deeper ecological consciousness.

These three ecological dimensions do not exist in isolation; rather, they are interconnected within a dynamic assemblage. The relationship between environmental and mental ecology is evident in how the conservation of the UI Forest creates contemplative spaces that positively influence mental health (Siah et al., 2023; Stier-Jarmer et al., 2021). The quality of air and natural ambiance directly contribute to psychological well-being, as expressed by respondents: "When you enter the forest, the abundance of oxygen alleviates your stress." Meanwhile, the connection between social and environmental ecology manifests through the communities formed in the UI Forest, which act as active agents of environmental conservation, as demonstrated by the cycling community that regularly engages in litter cleanup activities in the area. The relationship between mental and social ecology is reflected in how individual ecological awareness transforms into collective movements. Personal experiences in the UI Forest encourage the formation of environmentally conscious communities. One respondent's statement, "The grandeur of God makes me wonder how I could find such a place," illustrates how personal spiritual experiences can serve as a foundation for broader collective awareness.

Through the lens of assemblages, it becomes evident that the UI Forest is not merely a physical space but a complex ecosystem that integrates environmental, social, and mental aspects. The process of environmental conservation is inseparable from the transformation of consciousness and the formation of collective well-being. These three aspects support one another and form a dynamic assemblage, where changes in one aspect will influence the others. This finding reinforces Guattari's argument that solutions to ecological crises must involve simultaneous transformations at the environmental, social, and mental levels (molar and molecular). The UI Forest serves as a micro-model of how such transformations can occur through the dynamic interactions between environmental conservation, community formation, and individual consciousness transformation.

4. Conclusions

The findings of this article indicate the significant role of the UI Urban Forest. The UI Urban Forest serves as a space for the surrounding community to engage in various activities such as exercise, contemplation, and social interaction. These activities, conducted within and around the urban forest, influence the well-being of the community. By employing Félix Guattari's perspective of the Three Ecologies, this article aims to analyze the impact of the UI Urban Forest on community well-being, supported by data obtained from interviews with respondents, including local residents and UI students involved with the UI Urban Forest.

Based on our survey and interviews, nearly all respondents reported experiencing significant positive effects when engaging in activities at the UI Forest. The comfort provided by cool air and a tranquil atmosphere has a therapeutic effect on their mental health. Respondents also noted that while exercising or merely strolling through the forest, they felt rejuvenated and capable of relieving stress from their busy daily routines. This suggests that the community derives physical and mental well-being from the presence of the UI Urban Forest; however, this is contingent upon the community not intervening or disrupting the forest's existence. It is essential to emphasize that local residents, as subjects, cannot be separated from the presence of the UI Forest; they are integrated and interconnected with it. Therefore, a new form of connectivity is necessary to reassess the relationship between nature and humanity, continuously evolving within a space of connectivity between nature and humans in the context of well-being for the surrounding community. From the available data, it appears that local residents still hold a subject-object

perspective in their relationship with nature. The views expressed by respondents indicate that nature is valued solely for its utility to humans, serving as lungs, spaces, or areas for refreshment. This perspective reflects a shallow ecology that is misaligned with Guattari's conception of ecosophy in addressing contemporary ecological crises.

Author Contribution
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Biographies of Authors

Aflah Fildzah Syarafina, Department of Philosophy, Faculty of Humanities, Universitas Indonesia, Depok City, West Java 16424, Indonesia.
- Email: aflahfildzah2204@gmail.com
- ORCID: N/A
- Web of Science ResearcherID: N/A
- Scopus Author ID: N/A
- Homepage: N/A

Aisyah Nurul Ilmi, Department of Philosophy, Faculty of Humanities, Universitas Indonesia, Depok City, West Java 16424, Indonesia.
- Email: aisyahilmi102@gmail.com
- ORCID: N/A
- Web of Science ResearcherID: N/A
- Scopus Author ID: N/A
- Homepage: N/A

Chelsea Indri Valencia, Department of Philosophy, Faculty of Humanities, Universitas Indonesia, Depok City, West Java 16424, Indonesia.
- Email: chelseadrival12@gmail.com
- ORCID: N/A
- Web of Science ResearcherID: N/A
- Scopus Author ID: N/A
- Homepage: N/A

Eka Kurnia Setiyawati, Department of Philosophy, Faculty of Humanities, Universitas Indonesia, Depok City, West Java 16424, Indonesia.
- Email: eka.kurniasetiyawati@gmail.com
- ORCID: N/A
- Web of Science ResearcherID: N/A
- Scopus Author ID: N/A
- Homepage: N/A

Muhammad Reza Al Rasyid, Department of Philosophy, Faculty of Humanities, Universitas Indonesia, Depok City, West Java 16424, Indonesia.
- Email: rezaal2909@gmail.com
- ORCID: N/A
- Web of Science ResearcherID: N/A
- Scopus Author ID: N/A
- Homepage: N/A

Nada Azka Maulida, Department of Philosophy, Faculty of Humanities, Universitas Indonesia, Depok City, West Java 16424, Indonesia.
- Email: nadaazka215@gmail.com
- ORCID: N/A
- Web of Science ResearcherID: N/A
- Scopus Author ID: N/A
- Homepage: N/A

Siti Shalu Ramadhani, Department of Philosophy, Faculty of Humanities, Universitas Indonesia, Depok City, West Java 16424, Indonesia.
- Email: ramadhanishalu6@gmail.com
- ORCID: N/A
- Web of Science ResearcherID: N/A
- Scopus Author ID: N/A
- Homepage: N/A

Yahsya Naura Azka Herrnsdorf, Department of Philosophy, Faculty of Humanities, Universitas Indonesia, Depok City, West Java 16424, Indonesia.
- Email: yahsyaherrnsdorf@gmail.com
- ORCID: N/A
- Web of Science ResearcherID: N/A
- Scopus Author ID: N/A
- Homepage: N/A