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Original Research Article

Explaining the Relationship Between Human Experience in the Environment as an Embodied Subject and Raising Emotional Awareness

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Abstract

Problem statement: One of the main components of mental health is emotion. Emotions are constructed concepts that the human brain creates by giving meaning to its perceptions of the body and the surrounding environment in the process of simulating and predicting them. The way the environment is experienced affects the emotions of the person experiencing it. Environmental information is obtained through perceptual processes. Perception can be approached in two ways: by paying attention to the environment and trying to explore it, or by being present in the environment without paying attention. If a human being actively experiences the environment as an embodied subject, this experience leads to an increase in their awareness. This article aims to investigate how an embodied subject can be active in the environment in a way that leads to an increase in the emotional awareness of the person experiencing it. With the increase in emotional awareness of the individual, a new emotion is added to their emotional granularity, and in this process, the individual's mental health also increases.

Research objective: This article aims to fill a theoretical gap in the field of the relationship between environment and emotions, with an emphasis on increasing mental health. The research question is: How does the way a human being experiences the environment as an embodied subject relate to their emotional awareness and the increase in their mental health?

Research method: This article, with a qualitative research strategy and an interpretative approach, attempts to determine the effect of the embodied experience of the environment on the emotional awareness of the person experiencing it by explaining concepts such as emotion, emotional awareness, and embodiment in architecture and their relationship to each other.

Conclusion: If, during the experience of the environment, something new happens and creates distinction and attracts the attention of the person experiencing it, and in other words, an error in the prediction process occurs in the perception process, and if this new experience contains emotional meanings, it leads to the creation of a new emotion in the brain of the person experiencing it and its addition to their emotional granularity, which increases their emotional awareness and subsequently their mental health.

Keywords: *Emotional awareness, Embodied subject, Experience, Environment.*

Introduction

According to the World Health Organization, mental health is defined as a state of well-being that enables

individuals to cope with everyday stresses, realize their abilities, learn, and work well. Mental health is an integral part of health and well-being and is the foundation for our individual and collective abilities to

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make decisions, build relationships, and shape the world we live in. Mental health is also a basic human right. Given the increasing rates of mental illness in recent years and the high level of problems among citizens such as anxiety, depression, and so on, the issue of mental health has become very important (AIWH, 2018). One of the main parameters of mental health is also emotion or feeling (Williams et al., 1988).

Emotions are constructed concepts that the human brain creates in such a way that the brain, at every moment of wakefulness and in each specific context, uses the past experiences of each individual and, in the process of simulation, gives meaning to its perceptions from within the body and its surroundings, and then the individual experiences or regulates that created emotion (Barrett, 2017) (Fig. 1). So it can be said that the way the environment is experienced affects the emotions of the person experiencing it. Russell also believes that the stimulus and the environment are perceived not only based on their physical characteristics but also based on a person’s emotional response to them (Russell, 2003). Therefore, all environments in which people live, work, and play can cause positive and negative emotions in them (Perrins-Margalis et al., 2000; Tyson et al., 2002).

Despite the acceptance of the role and importance of emotion in perception and environmental reception, less attention has been paid to the place of emotion in studies in the field of environmental psychology. Studies have shown that in the previous theoretical frameworks presented, emotional reactions or emotions have only been mentioned as a component of the framework, and their mechanism in relation to humans and the environment has not been addressed. Of course, in recent years, research has been conducted on the interaction between the environment and emotions, especially in

the field of urban planning. However, the paradigm in which the theory of emotion and its nature are presented is different from this research, and these studies are based on the classical theory of emotion. Naturally, the results will also be different in such conditions. Also, the research done in the field of neuro-centric architecture in relation to emotion has generally focused on visual stimuli, while in this research, humans are considered embodied subjects with all their five senses. In the perception of the environment, the role of the moving body is very important, as humans experience it as an embodied subject. An embodied subject refers to a human who is not separated from his world but is immersed in it through a kind of multi-purpose neural network, including body and emotions (Seamon, 1982). Also, what is necessary to strengthen intelligence and awareness is to create a sense of attention in the audience for the lived experience of the event (Haghir & Masalegoo, 2020). Thus, to consciously recognize a phenomenon, humans need to change it. This creates attention in the audience and paves the way for conscious perception (ibid.). On the other hand, the more the emotional awareness of the individual increases—in the sense of creating a surprisingly emotional experience through prediction error—a new emotion is added to his emotional granularity, and the individual’s mental health increases (Barrett, 2017).

Another aspect of the innovation of this research is that the theory of constructed emotions, which is its basis and is known as a paradigm shift in the field of neuroscience, will be analyzed and interpreted in parallel with Merleau-Ponty’s theory of body consciousness. From this interpretation and considering the common points of these two theories, the research question will be answered with logical reasoning.

This research aims to fill a theoretical gap in the field of

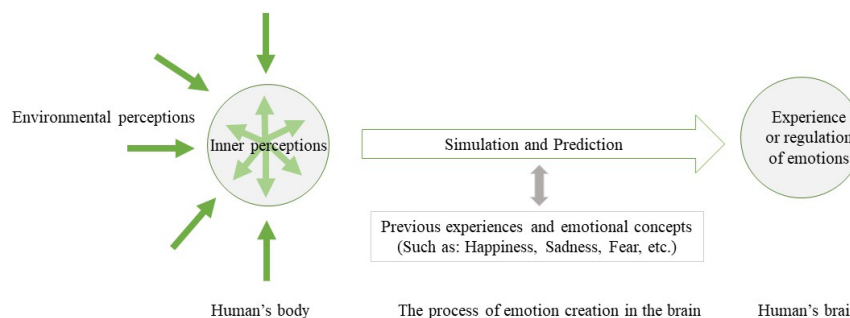


Fig. 1. The Process of Emotion Creation in the Human's Brain. Source: Authors.

the relationship between environment and emotions with an emphasis on increasing mental health. This article attempts to clarify the effect of the way the environment is experienced on increasing the emotional awareness and mental health of the audience by searching around the research question.

Literature Review

According to Gibson's theory (1996), the environment has the potential to provide experiences and behaviors for humans (Paikan et al., 2021). Environmental information is obtained through perceptual processes, which Berlyne (1974) argues is a process that results from the transmission of information through environmental conflict and uncertainty. He calls the factors of complexity, novelty, incongruity, and surprise the environmental adaptation variables that evoke in the observer a sense of pleasure and happiness, reward, absorption, and positive feedback. Overall, people want environments that initially have a moderate level of environmental information, because a lack of environmental information (excessive homogeneity and uniformity) leads to boredom and fatigue, and an abundance of environmental information (excessive chaos and diversity) leads to mental fatigue and psychological fatigue, and secondly, it has a pleasurable effect on them (Paikan & Pourjafar, 2020). Altman and Wohlwill (1976) state that the places we live in, whether urban landscapes, buildings, or natural environments, directly affect human emotion and, hence, health. Ulrich et al. (1991) refer to the attractiveness and positive feelings of humans towards habits, activities, and all elements of the surrounding nature. From Appleton's point of view (1975), humans tend to prefer large and protected spaces. Naser (2011) identifies five factors that affect the likability of a place: naturalness, proper maintenance, open spaces, historical significance, and order. Franz (2005) states that there is a meaningful relationship between the size of a place and the emotional assessment of spaces. Gifford (2007), in the model he has presented, considers cognition and emotion in conjunction with each other as one of the results of the environment that affects behavior in the environment and the feeling of well-being. Shaftoe (2008) believes that designing spaces in a way that has the right scale and

prevents fear is one of the principles of creating happiness in space. Koenig et al. (2014) believe that an individual's emotional responses to the environment are not due to a specific spatial location but rather to changes in spatial sequences. Hamzi et al (2016) say that in urban nodes and when changing or turning while moving, people's emotions change. In the studies of Li et al. (2016), human perception of urban space focuses on important spatial nodes, and urban spaces may affect people's emotional responses through the arrangement of spatial sequences and changes in the scenario of sequences. Tavassoli (2011) believes that enclosed spaces create a more secure environment compared to open spaces. Excessively large or small spaces can create feelings of fear. Paikan et al. (2021) concluded that the perceived emotional and affective quality of an environment is also influenced by both perceived environmental characteristics and individual characteristics. Based on the studies of Zamani et al. (2023), the physical components of form, materials and texture, furniture, ceiling height, architectural details, and open and closed space affect human emotions.

Since this research investigates emotional awareness in the field of psychology and the experience of humans as embodied subjects of the environment and the relationship between these two concepts, we will also review the literature on embodiment, which is the link between the brain, body, and the world.

Research related to the body and its interpretation can be considered into three categories under the title of research literature: The first category is the works of thinkers outside the field of architecture, such as Husserl and Merleau-Ponty, who have explained the subject of embodiment (Monshizade, 2022) and are referred to in (Table 1).

The second category of research on the body in architecture is based on a historical approach. Researchers in this field have examined the presence of the body in architectural thought from the classical period to the present. Some of these studies have a linear narrative, such as articles and writings by architectural historians and sociologists based on architectural documents and theories. These studies have described and critiqued the relationship between the body and architecture throughout history (Monshizade, 2022). In Table 2 we

will have an overview of these studies. The third category consists of the works of architects influenced by the phenomenological approach, such as Steven Holl, Peter Zumthor, Juhani Pallasmaa, and Alberto Pérez-Gómez, whose works have been well-received in Persian sources (*ibid.*). These are mentioned in Table 3.

In research carried out in the Iranian context, which has mainly focused on the body in philosophy, studies such as those by Shokri (2012), Khabbazi Kenari and Sebti (2016), Ramin et al. (2018) (Monshizade, 2022), and Mohajel et

al. (2021) address the topic of the body and embodiment from the perspective of phenomenological philosophers and the similarities and differences between their views. In the field of cinema, Naseri et al. (2022) have also conducted research on embodiment and lived experience. In recent years, in the field of architecture, Sayyad et al. (2019) have used a hermeneutic phenomenological philosophical approach to examine bodily perception as a source of inspiration for redefining the concept of space in architectural experience. Nikfetrat Kurd Mahaleh and his

Table 1. A Review of the Views of Philosophers on Human Embodied Perception. Source: Authors.

Author	Year	Title	Key Findings
Darwin	1859	On the Origin of Species	Assumed that human behavioral patterns are evolved from animal behavior and stated in <i>The Descent of Man: The mind is the function of the body</i> . Darwin can be considered the first serious theorist in the field of embodied cognition in the study of the human mind (Haghir & Masalegoo, 2020).
Maurice Merleau-Ponty	1962	Phenomenology of Perception	Merleau-Ponty begins his discussion of embodiment with sensory perception. In his view, perception is neither the reception of sensory qualities of things nor a judgment about them. It is neither the passive reception of separate components of the sensory thing nor the result of reasoning or intellectual powers: it is the way we bodily engage and the way we gain access to the world, and this way of engaging precedes thought (Khabbazi Kenari & Sebti, 2016). As he says, each of us is a body that perceives and shapes the world before we are a consciousness (Merleau-Ponty, 2002). He claimed that it is the body that provides meaning for the mind; on this basis, he coined the term “body-consciousness” and separated his position from mentalists and materialists. According to him, not only does the world determine our perception, but our perception also produces the world. His claim about the relationship between action and perception was an emphasis and confirmation that perception is truly a motor of movement (Haghir & Masalegoo, 2020).
Emmanuel Levinas	1969	Totality and Infinity	In his book <i>Totality and Infinity</i> , Levinas describes the body in terms of two aspects: need (the aspect of need through embodiment with the material other) and desire, both of which are intertwined with the embodiment of the subject (Sayyad et al., 2019).
Edmund Husserl	1978	The Crisis of European Sciences and Transcendental Phenomenology	Formulates two conceptions of the body: the term corpse and the lived body. He considers the lived body to be the instrument of perception and says that it is through this body that each person can experience nature or act upon it. In Husserl’s view, the body is the field of consciousness and the locus of the senses and perception, which reveals the object to the subject through its spatial position and the directional movement of the body’s limbs (Malekzadeh & Mohammadzadeh, 2021).
J. Lindblom	2007	Embodiment: A New Frontier for Cognitive Science	Emphasizes the interaction between the environment, the brain, and sensorimotor processes in the rest of the body, which is important for cognitive activity (Lindblom, 2007).

Table 2. Review of Research Related to Body and Embodiment in Architectural Writings. Source: Authors.

Author	Year	Title	Key Findings
Bloomer & Moore	1977	Body, Memory, and Architecture	Critiqued the purely technical view of contemporary architecture by questioning abstract two-dimensional drawings (Bloomer & Moore, 1977 quoted by Monshizade, 2022).
Seamon	1982	Body-Subject, Time-Space, and the Experiencing of Architecture	People are not separate from their world but are immersed in it through a kind of multi-sensory neural network, including the body and emotions (Seamon, 1982).
Le Corbusier	1985	Towards an Architecture	As a modern architect, he refers to embodiment: the architect realizes in the arrangement of forms an order that is the pure creation of his mind; he strongly affects our senses with forms and shapes and stimulates embodied emotions (Le Corbusier, 1985).
Vidler	1990	The Building in Pain: Body and Architecture in Postmodern Culture	Described the three stages of the metamorphosis of the body in architecture, from the Renaissance to the postmodern period, based on historical references and architectural theories (Vidler, 1990 quoted by Monshizade, 2022).
Imrie	2003	Architects’ Images of the Human Body	Critiques the relationship between body and architecture from a sociological perspective, and his findings in interviews with British architects in the late 20th century (1999-2000) show the dominance of the Cartesian view in the imagination of architects, especially in the two areas of education and professional experience (Imrie, 2003 quoted by Monshizade, 2022).
Mallgrave	2013	Embodiment and Architecture	Beautifully refers to the perspective of neuroscience and human cognitive development (Mallgrave, 2013 quoted Monshizade, 2022).
Jelic	2015	Architecture, Embodiment, and Cognition	Embodiment refers to the fact that the brain alone is not enough for cognition; the body and its physiological and neurological complexities cause impersonal processes that are not accessible to conscious awareness, but are related to brain activity and are necessary for at least some types of cognition (Jelic, 2015).

Table 3. The views of some architects influenced by the phenomenological approach. Source: Authors.

Author	Year	Title	Key Findings
Steven Holl	2000	Parallax	Borrowed the concept of perception in the context of a moving body from Merleau-Ponty and introduced it to architecture. In his book Parallax, he explained that changes in the placement of pages, which define space as a result of changes in the viewer's angle, occur when the axes of movement leave the horizontal plane and vertical and diagonal movements in urban spaces multiply our experience (Holl,2000).
Peter Zumthor	2010	Thinking Architecture	Examined the influence of the senses in architecture in his book Thinking Architecture: Buildings that have a deep impact always have a strong sense of spatial quality. They embrace the mysterious void called space in a special way and make it tangible (Zumthor,2010).
Juhani Pallasmaa	2014	The Architecture of Atmosphere	States in his book The Architecture of Atmosphere: Getting Used to and Repeating the individual's experience of the architectural space causes the said space to gradually become a part of the individual's body and the individual's body to become a part of the architectural space (Borch, Pallasmaa & Bohme, 2018 quoted by Hosseini Zadeh Mehrjerdi et al., 2023).
Alberto Pérez-Gómez	2016	Architecture and the Senses	Based on his writings in the book Timely Meditations, architecture deals more than anything else with the living, moving body and pursues conventional goals in a specific cultural world and in the direction of the possibility of producing poetic world images (Pérez-Gómez, 2016 quoted by Nikfetrat Kurd Mahaleh, et al., 2021).

associates (2021) have also studied the place of the body in the process of sensory perception of the atmosphere from the perspective of Merleau-Ponty's phenomenology. They concluded that atmospheric perception occurs through the unification of the audience with the space and the integration of perception, memory, and imagination in a bodily process. They argue that atmospheric perception has an intuitive and embodied nature and highlight the ability of architecture to accompany and guide the behavior of the audience. Monshizade (2022) provides an analytical review of the relationship between the body and architecture in the fields of philosophy, sociology, art, and architecture. He examines the evolution of the body in architecture. Hosseini Zadeh Mehrjerdi et al. (2023) try to understand the history of the body in the history of architectural thought and to discover its nature in the architectural thoughts of each period and its role in the formation and development of architectural theories.

Research Question

How does the experience of the environment by a human as an embodied subject affect their emotional awareness and mental health?

Research Method

This research uses a qualitative method and a documentary research approach to examine the concept of emotion, emotional awareness, and how to increase it. It then attempts to identify the relationship and similarities between these concepts and Merleau-Ponty's theory of

body consciousness and the way humans experience the environment as embodied subjects. In this way, the meaning of increased emotional awareness and its relationship to the way the embodied subject experiences the environment are explained. This research was conducted in several stages, which often overlap due to the nature of qualitative research: 1. identification of the concepts studied; 2. formulating the answer to the research question as the data is developed and collected; 3. data collection; 4. data analysis; 5. conclusion.

Theoretical Foundations of the Research

• Experience of the environment

The main question in Husserl's phenomenology is also what the surrounding world and objects mean to me and how these meanings are formed in my consciousness. The concept of experience has a fundamental place in this approach (Negintaji et al., 2018). In German, there are two words for the meaning of experience: Erfahrung and Erlebnis. The meaning of experience is experienced in general (such as personal experience). The word Erlebnis is equivalent to "lived experience, which is an immediate and present experience of something; an experience in which there is a union between the world and the known, between the experienter and the experienced. Lived experience is opposed to Erfahrung; Erfahrung means second-hand experience that is mediated and presentational and is used in the natural sciences, but in the humanities and art, experience is of the Erlebnis type that is immediate and ongoing (Van Manen, 1997).

Attention to lived experience is an attempt to understand or grasp the meanings of human experience as it is lived and perceived (Negintaji et al., 2018). According to Van Manen, “lived experience” takes place through “lived space”; lived space or lived place is the situation in which human lived experiences are formed, and this concept is different from the geographical meaning of place because what makes this aspect is, firstly, the mutual influence that a specific place has on the feelings or emotions of a person being there, and secondly, it is the feeling or emotion of a person being there that gives meaning to that place (Moosavian et al., 2019).

Our perception is not passive but an active exploration of the environment. Before you can recognize what an object is (recognition at the stage of perception), that object must have caught your attention, or, in other words, you must have paid attention to it (Haghir & Masalegoo, 2020). The experience of the environment can be in two ways: conscious and unconscious. Conscious experiences have a unique feature: we experience them, live them, or do them. We may observe or attend to other things that exist in the world, but we do not experience them—experience in the sense of living or doing them. This first-person experiential feature—the feature of being experienced—is an inherent part of the nature or structure of conscious experience (Smith, 2013). Experience is something that I have agreed to pay attention to, and this is what is meant by the experience of the embodied subject in the environment in this research. Conscious experience is also possible through intentionality, and intentionality leads to lived experience (Haghir & Masalegoo, 2020). Personal experiences are also considered from the perspective of the body and its specific lifeworld (Annelie et al., 2019).

• Embodiment

The concept of embodiment was introduced by phenomenologists to reject the dualism of body and mind (Naseri et al., 2022). In line with this view, which does not consider the mind as distinct and separable from the body, Merleau-Ponty gives the body a primary and essential role in the perception of the world and introduces man as an “embodied” being that expresses a way of being in the world (Monshizade, 2022). In his book *Phenomenology of Perception*, he writes that “I

am my body insofar as I am the owner of experience” (Merleau-Ponty, 2002 quoted by Mohajel et al., 2021). In his book *The Primacy of Perception*, Merleau-Ponty also considers the perceiving mind as an embodied mind and tries to prove the roots of the mind in the body and the world (ibid.). It can be said that embodiment is the way we bodily confront and access the world and precedes our thinking. It is through the lived body that we can experience or act upon nature.

Husserl’s view also considers the body as a medium of experience and understanding. The term lived body in his phenomenological literature appears in contrast to the concept of the mechanical body, which is clearly distinguished from the objective body composed of muscles, bones, and nerves. The lived body refers to the body as a set of possibilities for action (Monshizade, 2022).

People, as embodied subjects, perceive the environment with their moving bodies. The sensory-motor view can be stated in the form of three related claims: 1. The body is not an object that can be represented; 2. The existence of the body is the existence of the body in the world; 3. The body that we experience is the body in action. To explain the lived body, Merleau-Ponty, instead of reducing it to a representation of the body, refers to the concept of action. The lived body is understood in the context of its practical confrontation and engagement with the world. Merleau-Ponty believes that the relationship between perception and the body is neither causal nor conceptual because it is only through these two categories that the correspondences and dependencies between the body and the perceptual experience become understandable for us. We have a pre-reflective understanding of our own experience that does not have a causal or conceptual relationship with our bodies but is rather in a relationship of mutual motivation with our bodies (Sayyad et al., 2019).

Embodiment gives a person the ability to know in a way that is shaped by the unconscious. The most important link that connects Merleau-Ponty’s philosophy to psychoanalysis is also the concept of the embodied subject (Piravi Vanak, 2010). The

embodied subject¹ is a subject who can perceive the world entirely with his body and with it shapes the world.

• Emotion

Over time, there have been many definitions of the concept of emotion. For example, Kleinginna & Kleinginna (1981) extracted 92 different definitions from psychology dictionaries and well-known texts. In Table 4, we will review the views of thinkers on the nature of emotion and its types. Also, given the field of this research, six of these theories will be mentioned from among the existing theories in the field of emotion, the last of which, which will be fully discussed in the theoretical foundations section, is considered the basis of this research.

To address emotional awareness, we must first clarify what emotion is and how it is constructed. This will allow us to differentiate between the concepts of emotion and emotional experience, and ultimately between awareness and emotional awareness. Lisa Feldman Barrett's theory of constructed emotions, which is the basis of this research, stands in contrast to the classical view of emotion and represents a paradigm shift in neuroscience.** In the classical view of emotion, which has been described by philosophers such as Plato, Hippocrates, Aristotle, Buddha, Descartes, Freud, and Darwin, and more recently by thinkers such as Steven Pinker, Paul Ekman, and the Dalai Lama, our emotions are the result of evolution that have long been beneficial for survival and have now become a stable part of our biological nature. According to this view, we have emotional circuits in our brains that consist of specific sets of neurons, and each circuit creates a distinct pattern of physical changes for each emotion, like a fingerprint. In this way, emotions are innate and universal. However, there is a great deal of scientific evidence that suggests that this view cannot be correct. (Barrett, 2017) A single set of neurons does not create a brain event such as fear. Rather, a combination of different neurons can create a feeling of fear. In neuroscience, this principle is called degeneracy. This means that a large number of neurons can produce similar results, and a single brain region or network can be involved in many different mental states. This fact, that most neurons are multipurpose and play more than one role, contradicts the classical view of emotion (ibid.).

Barrett's research and meta-analyses have shown that in many different contexts, within the same individual and between different individuals, the same emotional category can elicit different physiological responses. Even for a specific emotion, there is no stable fingerprint. Therefore, it can be concluded that emotions are not associated with specific parts of the brain. So how are emotions constructed? It is important to note that the macrostructure of the human brain is largely predetermined, but the micro-wiring aspect is not (Barrett, 2017). As a result, past experiences help to shape our future experiences and understandings (current experiences help to shape future experiences). Our experiences are created by environmental input from our five senses, as well as the brain's input from what is happening inside our bodies. Since the human brain cannot directly experience the world, it experiences what is happening in the world only indirectly through bits of information from light, vibrations, and chemicals, and converts them into sights, sounds, smells, and so on. The brain must interpret the meaning of these sparks and vibrations, and its main clues are the individual's past experiences, which the brain has created in the form of simulations in a vast network of neural connections. Therefore, the brain uses past experiences and mental concepts as a guide to simulate and predict. These predictions are the brain's best guesses about what is happening around it. The brain then uses its classified concepts to give meaning to its internal and external sensory experiences and the events that it has experienced. If the active concept in the brain for meaning-making is emotional, an instance of emotion is constructed and becomes part of the individual's emotional concepts (ibid.) (Fig. 2). The "concept" and "emotional concept," "experience" and "emotional experience," and "awareness" and "emotional awareness" are all distinct from one another. When we discuss an emotional concept and its processing in people's minds, this processing of meaning is not the same as the processing of lexical meaning in linguistics. Rather, it is more subjective, focusing on emotional or affective meaning. Given the uniqueness of each individual's learning experiences, the emotional weight of concepts can vary and convey different meanings or intentions for one person compared to another (Essazadegan, 2009). This means that

Table 4. Overview of the definition of emotion, existing theories in this field, and categorization of emotions based on the views of philosophers. Source: Authors.

Theory or Theorist	Description	Key Points
James-Lange theory	Emotions are the perception of bodily changes	Specific emotions are associated with unique patterns of physiological arousal (Dalglish, 2004).
Cannon-Bard theory	Stimuli simultaneously cause physiological and emotional responses.	Arousal and emotion are created by a neural impulse (Cannon, 1931).
Schachter-Singer two-factor theory	Emotions are based on physiological arousal and cognitive labels	Arousal occurs when emotion is felt (Schachter & Singer, 1962).
Facial feedback theory	Activating facial muscles associated with emotions directly affects emotional states.	Facial expressions can express emotions (Davis et al., 2010).
Frijda	Emotions are short-term states that are usually caused by something.	Physiological responses that accompany emotions may only last a few seconds (Frijda, 1988).
Lazarus' cognitive appraisal theory	Emotion is the result of appraising information from the environment and from within the body (Scherer et al., 2001).	This theory divides emotions into two categories: pleasantness or unpleasantness, and amount of arousal (Nasar, 2011).
Reeve	Emotions are states of feeling that energize and direct behavior.	They are short-term and intense (Reeve, 2009).
Izard	Emotions are composed of neural circuits, reaction systems, and an emotional process.	They influence cognition and behavior (Izard, 2010).
Gartner	Emotions are one of the psychological processes that can be recorded by sensors and devices.	He classified emotions into ten categories: anger, sadness, joy, cheerfulness, neutrality, pleasure, fatigue, fear, resentment, and disgust (Gartner, 2012).
Barrett	Emotions are part of the categorized and purposeful concepts of our mind.	Each emotional word, such as anger, is a collective name for a variety of different things that have been categorized under the emotional concept of anger, and each one has been designed to prescribe the best course of action in the given situation. He believes that it is our brain that creates the experience of emotions, but a group of emotional concepts such as sadness, fear, or anger do not have a specific brain region, and each instance of emotions is a general brain state that needs to be studied. In his view, emotions are not inherent but are culturally and environmentally dependent, and it can be said that each person is an active creator of their own emotions (Barrett, 2017).

emotional concepts can have different meanings for each person. Emotional lived experience also constitutes a large and important part of people's daily lives (Shahisadrabadi et al., 2019). Experience in its general sense has two main concepts: 1. the phenomenological concept, which is described as "that which a person is exposed to"; and 2. The epistemological concept, which involves direct and non-inferential knowledge (Moosavian, 2021). In contrast, emotional experience refers to content-rich events that appear at the level of psychological description but must be causally generated by neurobiological processes, and any theory of emotional experience must attend to both content and process. The content that makes up emotional experience is the feeling or emotion that people experience at the time, and the process refers to the neurobiological processes that explain how emotional experience happens (Barrett et al., 2007). As mentioned, emotional awareness, which plays a central role in this research, is also different from awareness. Awareness, in the phenomenological sense, is not a separate entity that mysteriously interacts with a

mechanical body. Rather, being aware means being embodied (Kaufér & Chemero, 2019). However, emotional awareness, which is also referred to as emotional self-awareness in some sources, refers to the awareness of one's own emotions and the identification and understanding of emotions. This factor is not only the recognition of emotions and their differentiation but also the reaction of individuals to emotions. Emotional awareness, as the ability to accurately recognize one's feelings, emotions, and personality traits, helps individuals understand the relationship and cause of emotions and gain information about the why and how of arousal in different situations. This factor helps individuals to have the ability to identify their multiple emotions and to be able to distinguish them from each other. This ability leads to self-understanding in relation to and adaptation to the environment (Dafeian, 2022).

Discussion

Based on the studies conducted, it was concluded that the perception of the environment can be considered as its

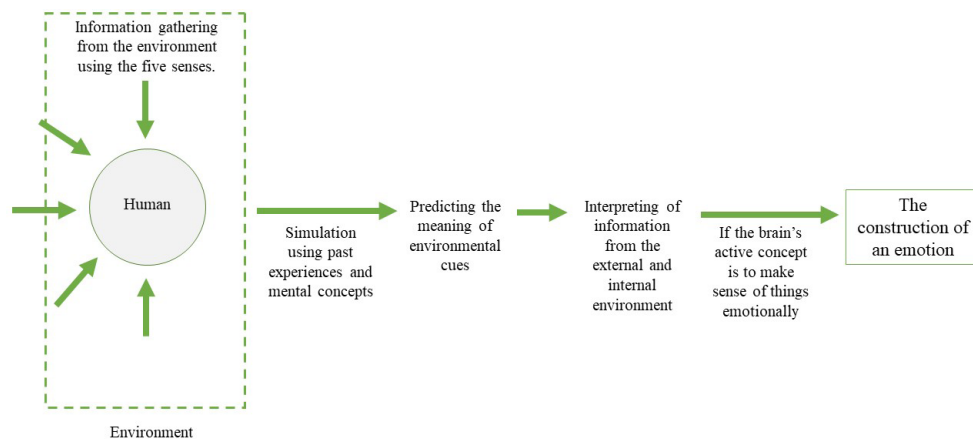


Fig. 2. How emotions are shaped. Source: Authors.

active exploration. It was also stated that if the audience of the environment intends to pay attention to it and the experience of the environment is conscious and from the perspective of his body -that is, he experiences it as an embodied subject- a lived experience takes place through a lived space. This means that this place has affected the emotions of its audience. Examples of the impact of places on the feelings and emotions of their audiences are also listed:

- Positive feelings towards natural elements and surroundings (Ulrich et al., 1991)
- Human preference for large, protected spaces (Appleton, 1975)
- The impact of five factors on place liking: naturalness, maintenance, openness, historical significance, and order (Nasar, 2011)
- The impact of the size of a place (Franz, 2005)
- The impact of the scale of a space (Shaftoe, 2008)
- The impact of changes in spatial sequences (Konig et al., 2014)
- The importance of urban nodes and change and rotation during movement (Hamzi Hijazi et al., 2016)
- The importance of urban nodes and changing the scenario of sequences (Li et al., 2016)
- The impact of enclosure and openness (Tavassoli, 2011)
- The importance of individual characteristics alongside environmental characteristics (Paikan et al., 2021)
- The importance of physical components such as form, materials, texture, furniture, ceiling height, architectural details, and openness or closedness of space (Zamani et al., 2023)

Since we experience the environment as embodied

subjects, and according to Husserl, our instrument of perception is our lived body, according to the definitions presented, being present in the architectural environment is like being immersed in space through embodiment. From Merleau-Ponty’s point of view, people perceive the environment with their moving bodies, and it is the body that provides meaning for the mind. The concept of the embodied subject refers to an individual who perceives, experiences, and interacts with his or her surroundings using his or her various senses. In other words, an individual who is known as an embodied subject is able to receive and interact with information from his or her surroundings using his or her senses. This interaction increases the individual’s emotional awareness and enables him or her to better coordinate with and more effectively interact with his or her surroundings based on his or her previous experiences.

When a person is placed in an environment and encounters it, he or she can have two approaches: paying attention to the environment and trying to explore it (being active) or being present without paying attention to the environment (being passive). If a person experiences the environment actively and as an embodied subject, this experience leads to an increase in his or her awareness. This is because consciousness is in the embodied world and, to the same extent as the body, is filled with consciousness as it knows the world (Smith, 2013). Merleau-Ponty sees the subject’s consciousness, cognition, and embodiment as an interwoven set. On the other hand, we know that the brain is formed from the expansion of intermediary networks between sensory neurons (perception) and motor neurons (action). In this way, our brain, which is a huge computing

center, organizes cognition, action, and the interaction of cognition and action (Morin, 2012). Therefore, what is necessary to strengthen intelligence and awareness is to create a sense of attention in the audience for the lived experience of the event (Fig. 3). Now, how can we implement the first type of approach and the active presence of the embodied subject in the environment? It was mentioned that the way the human brain deals with information received from the environment is through simulation using past experiences, mental concepts, and prediction. The brain's predictions can be correct or incorrect. So, if at the stage of prediction and simulation, the brain's prediction does not match the sensory data and a prediction error occurs, it causes the brain to learn new things and this creates a new and surprising experience for the brain, which leads to increased awareness. Therefore, space becomes tangible for its audience when it becomes unclear to the individual and attracts attention. It can be concluded that to consciously recognize a phenomenon or the environment, humans need to change it. This creates attention in the audience and paves the way for conscious perception, and awareness is the result of this process of perception. Also, due to the newness of this experience for the individual, after recognizing the environment, the range of the individual's experiences will be richer than before and the concept received from this experience will be added to his mental concepts. If this concept is emotional, in this process a new emotional concept is added to the individual and increases his emotional granularity because a new emotional concept has become experienceable for him, which also increases the individual's range of emotional awareness because we build emotional experiences based on our knowledge. On the other hand, as the individual's emotional awareness increases - meaning creating a surprising emotional experience through prediction error - a new emotion is added to his emotional granularity and the individual's mental health improves (Fig. 4). This is because emotional granularity is related to the correct reading of the individual's internal emotional states, and for someone who can identify their internal emotional state at that moment among

various emotions, their emotional intelligence and mental health gradually increase (Barrett, 2017). Of course, to achieve this goal, it should be noted that environmental information should be somewhere in the low to high range so that their scarcity does not cause boredom and fatigue, and their abundance does not lead to mental confusion and fatigue (Berlyne, 1974).

In summary, if the experience of the environment is with attention and with the intention of active exploration of the environment, embodied perception occurs through movement differentiation and change so that it attracts the attention of the audience of that environment, and conscious perception occurs. This error in the brain's prediction of the environment, which has led to a surprising experience, causes the learning of a new experience that leads to the creation of a new emotion or the regulation of the previous emotion and its transformation into a new emotion. Since this process increases the emotional granularity of each person as the audience of that environment, it will lead to an increase in their mental health.

Conclusion

As it was mentioned before mental health is a state of well-being that enables people to cope with everyday stress, understand their abilities, learn, and work well, and one of its main parameters is emotion. This research emphasizes that the concept of emotion is presented in a paradigm different from the classical theory of emotion. This has led to a difference in the process of formation and reaching results in it. In recent years, research has been conducted based on the classical theory of emotion on the interaction between the environment and emotions. What differentiates this research from others is the research method (Zamani et al., 2023, Paikan et al., 2021). According to the classical theory of emotion, each emotion is displayed on the face with a specific pattern of movements called "facial expression", and by measuring the facial muscles with electrodes during an emotional experience, the individual's emotions can be objectively and accurately evaluated (EMG face) or in another

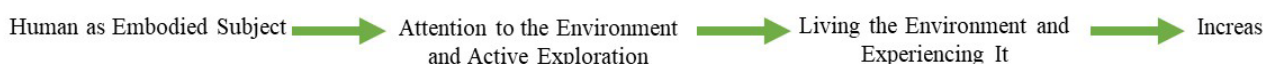


Fig. 3. The process of increasing the awareness of the embodied human being. Source: Authors.

research method, by following the effect of emotional experience on the body and measuring changes in heart rate, blood pressure, temperature, and skin secretions were performed. Other researchers, based on this theory, consider a specific area in the brain for each emotion (for example, the amygdala is associated with fear) and conduct their research using methods such as functional magnetic resonance imaging (fMRI) (Barrett, 2017). In these studies, it is believed that by using tools to measure bodily changes or brain scans, it is possible to identify people's emotions, and the results of their research are also based on this (McDonald, 2014, Hogertz, 2010). However, after decades of testing and research, Barrett (2017) introduced a new paradigm in neuroscience and stated that EMG studies of the face show that people move their facial muscles in different ways, and there is no fixed method for when they experience a sample from a category of emotions. Each emotional experience involves different physical changes, and no area of the brain contains a fingerprint for any particular emotion, and a brain network can be involved in many different mental states. He showed that a type of emotion, such as fear or joy, does not have a specific fingerprint, and proposed the theory that each person's emotions are created and experienced in the process of simulation and by using the individual's past experiences, by giving meaning to their perceptions from within the body and the surrounding environment (Fig. 2). Emotion in this

research was explained based on this theory. Accordingly, how the audience experiences the environment and the perceptions of his body from his five senses are effective on his emotional experience. Knowing what emotion the person is experiencing in that environment and at that particular time is also called emotional awareness. To increase emotional awareness, it is very important to create a sense of attention in the audience for the lived experience of the event. The characteristic of "experience as lived", is an inherent part of the structure of conscious experience. Experience is something that I have agreed to pay attention to. The context of lived experience is also the lived space, and what is meant by the experience of the embodied subject in the environment is the realization of this lived experience. The person's experiences are considered from the perspective of his body, and it is through the lived body that we can experience and understand the environment. The lived space or lived place is the situation in which the lived experiences of a person are formed, and what creates this aspect is the effect that this space has on the emotions of its audience. As mentioned in the explanation of the process of emotion construction, environmental perceptions from the five senses, plus the brain's perception of what is happening inside our body, create our emotional experiences. The brain uses past experiences and mental concepts as guides for simulation and prediction. These predictions are the brain's best guesses about what is happening around it.

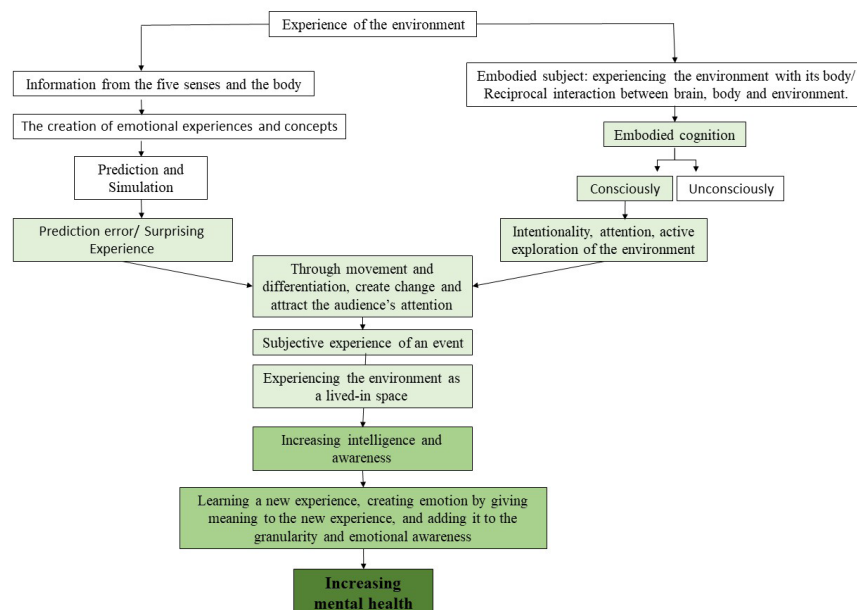


Fig. 4. The effect of the embodied experience of the environment on increasing emotional awareness and mental health. Source: Authors.

The brain then uses its classified concepts to give meaning to its internal and external sensory perceptions and the events it has experienced. If the active concept in the brain for meaning-making is emotional, an instance of emotion is created and becomes part of the individual's emotional concepts. It was mentioned that the brain's prediction in the process of the human mind's perception of the environment can be correct or incorrect. If this prediction is incorrect, the brain learns something new in this situation and will have a surprising experience. Now, if this new situation contains an emotional concept and the person experiences a new emotion at that moment, the individual's emotional awareness will increase with the increase in the range of concepts related to his emotion. What information the brain accepts from the environment and how it experiences the environment depends on its mental concepts (experiences). So, the wider the range of emotional concepts an individual has, the richer and more conscious his experience of the environment will be. On the other hand, in examining the concept of embodiment, we saw that if a human being consciously experiences the environment and in embodied perception, his attention is drawn to a distinctive situational experience through movement, this event becomes part of the audience's lived experiences and leads to conscious perception and growth of awareness.

Therefore, it can be concluded that if during the experience of the environment, a new event occurs that creates differentiation and attracts the attention of the audience, and in other words, a prediction error occurs in the process of perception, and if this new experience contains

emotional meanings, it will lead to the creation of a new emotion in the brain of the audience and adding it to his emotional granularity, which will increase his emotional awareness and subsequently his mental health (Fig. 5).

Endnotes

1. The concept of "subject" should be searched in the roots of contemporary thought, i.e. the era of Renaissance, whose pioneer is René Descartes (1596-1650 AD). Descartes founded the subject with his famous sentence: "I think, therefore I am". In Descartes' thought, the subject is born as an independent entity from the world around him and is separated from the world. In Descartes' thought, the subject means the subject of identification, which has the ability to think and act independently of metaphysical forces (Karimi & Navabakhsh, 2019). However, by introducing "the body-subject", Merleau-Ponty does not give primacy to the mind, nor to the body, and considers the body as our perspective for perception. According to Merleau-Ponty, Descartes' subject is "cut off" from the world. Instead of Descartes' thesis, he puts a new concept of the subject: the subject is inherently corporeal and without the body it cannot have any understanding and knowledge of the world (Mohajel et al., 2021).

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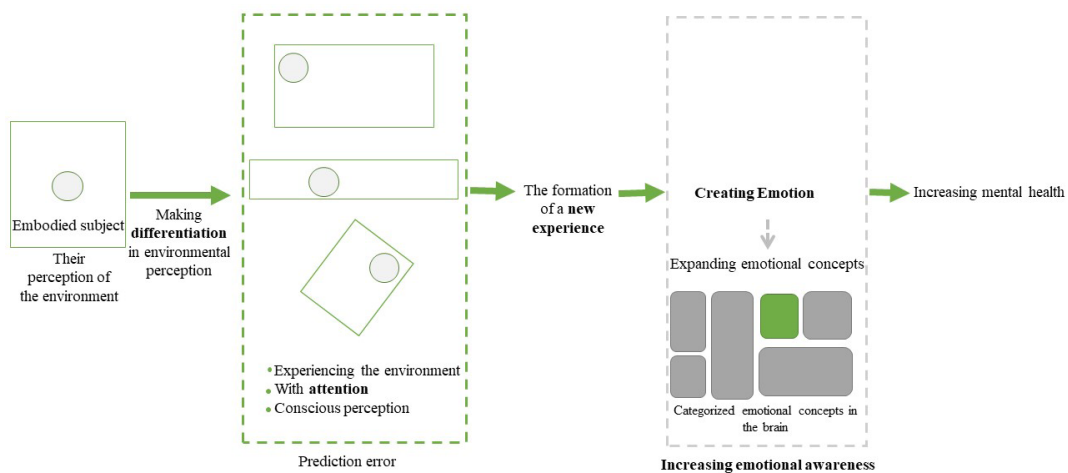


Fig. 5. Raising emotional awareness of the embodied person. Source: Authors.

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