Defne & Wise man discuss the Meaning of *Meaning*

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Foreword

For many years, I have immersed myself in the pursuit of understanding what meaning truly is, engaging in countless readings and deep contemplation. My initial fascination with philosophy stemmed from a desire to grasp the underlying principles of the natural sciences. As I sought to unravel the essence of these sciences, I found myself drawn inevitably toward the nature of mathematics, compelled to probe its abstract foundations in the hope of gaining deeper insights. However, when I turned my attention to the elusive concept of meaning itself, it became clear that neither the sciences nor mathematics could fully address my questions. This realization led me to the philosophy of language, where I embarked on an intellectual journey to decode how meaning is constructed and conveyed. I delved into the works of numerous thinkers, with Ferdinand de Saussure's pioneering ideas serving as a critical reference point in my exploration.

As my quest expanded beyond language, I found it necessary to venture into the realm of neuroscience, collaborating with researchers dedicated to understanding the brain's complex mechanisms. By investigating how the brain processes information and generates meaning, I sought to bridge the gap between abstract philosophical concepts and the tangible workings of the human mind. These interdisciplinary explorations—spanning philosophy, science, mathematics, and neuroscience—culminated in the realization that no single field could offer a complete answer. Instead, it was the synthesis of these diverse perspectives that led to the formation of the ideas contained within this book, which stands as the result of years of inquiry and reflection.

In the first chapter, the nature of knowledge and perception is explored in depth. It begins by examining the idea that we acquire knowledge through our senses—by observing the world around us and drawing conclusions based on sight, touch, sound, and taste. The initial perspective suggests that qualities such as color, warmth, hardness, and taste are learned directly

from external experiences. However, the discussion soon takes a turn, challenging this straightforward view. It is proposed that what we perceive is not simply a reflection of the outside world, but rather a product of the brain's interpretation. Sensory input is transformed into electrical signals, which the brain processes to create our experience of color, sound, taste, and other qualities. These sensations, it is argued, do not exist independently in the external world but are constructed by the mind. The conversation then delves into a deeper philosophical inquiry: the idea that knowledge precedes observation. Concepts like numbers, infinity, and even emotions are not discovered through sensory experience but are mental constructs that shape our understanding of the world. Without these inherent concepts, the brain would be unable to interpret sensory data or make sense of external reality. This section ultimately suggests that our perception of the world is filtered through the knowledge we already possess. Far from being passive observers of reality, we actively construct our experience of the world, shaped by the frameworks of understanding we carry within us. This thought-provoking exploration raises questions about the very nature of reality and our role in perceiving it.

The second chapter delves into the arbitrary nature of language and symbolism, questioning the assumption that words inherently carry meaning. The conversation begins by discussing a familiar word like "cat," which many associate with a specific image of a small, furry animal. However, it quickly becomes clear that words are just symbols composed of letters, and their connection to meaning is arbitrary. Through examples like the idiomatic phrase "It's raining cats and dogs," the dialogue highlights how meaning is often assigned culturally, and without context, words can be misinterpreted. The discussion then expands to show that different languages use entirely different words, like "bird" in English and "kuş" in Turkish, to represent the same concept, further emphasizing that there is no inherent relationship between a word and its meaning. The conversation also explores non-verbal symbols, such as a red color bead or a musical note, demonstrating that lines, shapes, and colors also derive their meanings from human interpretation. This section reinforces the idea that meaning is not an intrinsic property of words or symbols but is instead created through the associations and agreements formed within a culture or group. It challenges the reader to rethink how meaning is constructed and understood.

In the third section, the focus shifts to exploring the abstract nature of meaning and its relationship to perception. The discussion begins by questioning whether visible objects like trees or books have inherent meanings or if these meanings exist only in the mind. It is argued that

while we perceive objects through our senses, the images and meanings we associate with them are actually constructed in the mind. The conversation goes deeper, emphasizing that meanings are not concrete or absolute but are shaped by differentiations. For example, recognizing a horse involves focusing on distinguishing features, not general characteristics. This concept extends to language, where meaning is derived from differentiating one word or symbol from another, rather than from any inherent property. This leads to the idea that meanings are fluid and constantly shift as new distinctions are made, reshaping our understanding. The discussion also touches on how definitions are inherently relational. Words and concepts can only be defined by referring other concepts, and no concept can be fully understood or defined in isolation. Meaning, therefore, is not pinpointed; it is part of an interconnected system that evolves over time. The section concludes by illustrating that some fundamental concepts—such as colors, tastes, or sounds—are indefinable and must be experienced directly, underscoring the limitations of language in capturing the essence of certain abstract meanings.

In the last chapter, This section delves into the concept of learning through social interaction and contextualization. The conversation begins by questioning whether a young monkey, given the same education as a human, could grasp abstract concepts like rational numbers, justice, or acceleration. It is suggested that human minds are uniquely predisposed to learn such concepts, which are not learned from scratch but recalled through social interactions, as Plato argued. These concepts, passed down through generations, are inherited rather than individually created. The dialogue then explores how learning happens through dialogues—sequences of cause-and-effect exchanges between the learner and the knower. It is shown that meaningful learning is context-dependent, and knowledge must be presented within real-life scenarios for it to be fully understood. The example of a candy seller illustrates how learning math in school differs from applying it in a real-world context. The seller's decision to disregard the 10 cents shows that meaningful learning goes beyond theoretical knowledge and is shaped by real experiences. Further, the concept of "contextualizing actions" is introduced—where attention is drawn to specific aspects of a situation, helping learners grasp concepts more deeply. Using the example of a shoemaking game, the conversation demonstrates how a series of connected contextualizing actions enrich the understanding of shoemaking. The learners' attention is directed to different aspects like shoe size, gender, and price, gradually building a fuller understanding of the process. The section concludes by emphasizing that learning is a dynamic, contextualized process, and meaningful knowledge is constructed through dialogue and interaction within real-world contexts.

Acknowledgments

I would like to express my deepest gratitude to my family for their endless support.

My sincere thanks go to Dr. Mary B. Nakhleh, an exceptional person, for patiently listening to my absurd ideas throughout my doctoral studies, trying to understand me, and guiding me in the right direction.

I am also immensely grateful to Dr. Lloyd Barrow and the late Dr. George Bodner, two remarkable individuals who provided guidance and whose academic support I always felt during my Master's and Ph.D. studies.

Contents

Introduction

This book draws inspiration from the timeless dialogues of Plato and is presented in a conversational format. The narrative unfolds through a series of rich and thought-provoking exchanges between Defne, a PhD student, and a seasoned philosopher. Defne, though modest in her knowledge, possesses a deep curiosity and a genuine desire to explore the concept of meaning. The philosopher, with his vast wisdom, offers guidance as they venture into profound discussions about the nature, location, and acquisition of meaning.

Throughout these dialogues, Defne does not merely absorb information passively; instead, she brings forth questions that are likely to resonate with readers themselves. With a sense of intellectual rigor, she scrutinizes the philosopher's responses, often challenging his ideas and engaging in a deeper inquiry. In this way, she transforms from a passive listener into an active participant, shaping the dialogue with her own perspectives and reflections.

The choice of this conversational style is not accidental. It serves to invite readers into the heart of the discussion, making complex ideas more accessible and relatable. By framing the exploration of meaning in a dialogue, the book seeks to provide an engaging and enlightening experience, one that encourages the reader to think critically and connect with the material in a meaningful way.

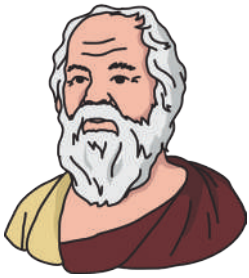
I hope you enjoy reading,

Yılmaz Sağlam, Professor of Science Education

CHAPTER 1

What is the source of knowledge?

Wise man:



What is the source of the knowledge you possess?

Defne:

Observation.

Wise man: Can you explain?

Defne: We gain knowledge by observing our surroundings. Our observations are the source.

Wise man: Can you give an example?

Defne: Look at that hawthorn tree. Four yellow canaries are perched there. This is knowledge—I can see them, hear them, and count them.

Wise man: Is color innate or learned?

Defne: Learned.

Wise man: How?

Defne: We see yellow during walks in nature or in picture books. That's how we learn it.

Wise man: And warmth, coldness?

Defne: Also learned.

Wise man: What about sweetness and bitterness?

Defne: The same. I learned sweetness from fruits, bitterness from peppers. Observations teach us.

Wise man: Do smells work the same way?

Defne: Yes. Spoiled food teaches bad smells; strawberry jam teaches good smells.

Wise man: And hardness, softness?

Defne: We touch wood—a table, a tree—and learn it is hard. We observe, and we conclude [9].

Wise man: So, knowledge comes from our senses?

Defne: Yes, through touch, sight, hearing, taste, and smell. We observe the events or objects around us, recognize common traits among these things, and draw conclusions from them [1,2,3]. We notice patterns and draw conclusions [9].

Wise man: What process is this?

Defne: Inductive reasoning [9]. That is, Knowledge flows from nature to humans through observation [9].

Wise man: Has it influenced anything?

Defne: Yes, it inspired positivism and empiricism in the European Enlightenment [10].

Wise man: Is hardness an inherent property of wood, or do we assign it to the wood?

Defne: Hardness is an inherent property of wood. All wooden objects are hard.

Wise man: So, you're saying that hardness is something we observe. Do you think colors are the same way?

Defne: Yes. I see objects as colorful because of their colors.

Wise man: Do you think the same applies to things like warmth, coldness, bitterness, sweetness, and smell?

Defne: Yes, I think so. I perceive these qualities based on the objects around me.

Wise man: If a vanilla scent is pleasant, would someone else find it pleasant too?

Defne: They might, or they might not. It varies from person to person.

Wise man: But you mentioned that a pleasant scent is an inherent property. If that were true, wouldn't everyone find it pleasant?

Defne: I'm not sure. It is confusing.

Wise man: Does this apply to other qualities too? For example, could warm weather feel cool to someone else?

Defne: Yes, it could.

Wise man: Could a sweet fruit taste less sweet or even sour to someone else?

Defne: Yes, that's possible.

Wise man: After eating a sweet fruit, water might taste a bit bitter.

Defne: Yes, that happens. It can also occur when we're sick.

Wise man: If the sweetness of water were an inherent quality, shouldn't we always taste it as sweet?

Defne: Yes, that would make sense.

Wise man: Imagine there's only one rose left in the world and all humans are gone. Would the rose still be beautiful?

Defne: Yes, it would still be beautiful. Beauty is a quality of the rose itself. Even without people, it would remain beautiful.

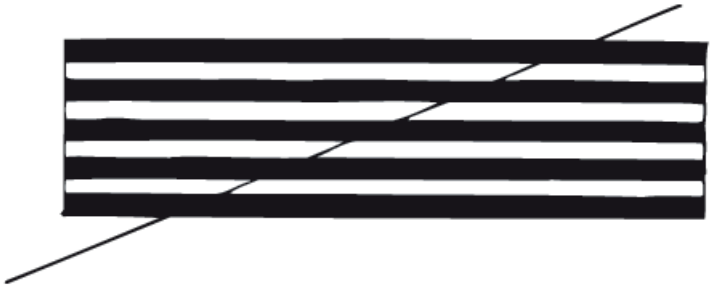
Wise man: Would animals find it beautiful?

Defne: Probably not. Animals are likely attracted to the rose's taste, not its beauty.

Wise man: So, the rose doesn't get its beauty from itself. It finds beauty through human appreciation. Without humans, beauty doesn't exist.

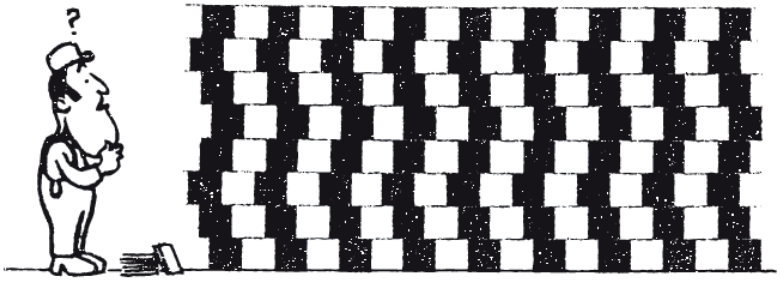
Defne: It seems that way.

Wise man: Take a close look at the shapes below. *(Image source number 8)*



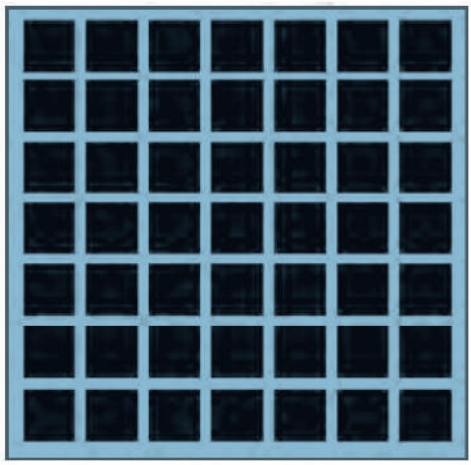
Is the slanted line really broken?

Defne: (Checking if the line is straight with a ruler) In reality, a truly straight line should intersect the staff lines. However, when I look at it, it appears to be broken. (*Image source number 8)*



Are the rows of tiles really crooked?

Defne: (Checking if the line is straight with a ruler) The lines are indeed straight. However, when I look at them, they seem to be broken. (*Image source number 8)*



Do you see elusive spots between the black square corners?

Defne: Yes, I see grayish spots. But I suppose these spots do not actually exist.

Wise man: Yes, that's correct. Our perceptions are always a result of the brain's interpretation. Therefore, we make sense of our surroundings using the knowledge we possess. We perceive colors through our understanding of color, cold objects through our knowledge of coldness, hot peppers through our understanding of spiciness, and hard objects through our concept of hardness. We perceive our environment thanks to this innate knowledge. Remember, knowledge always exists prior to observation [11, 12].

Defne: How can this be? The idea that we possess such knowledge without any education from birth seems quite unbelievable to me. It's difficult for me to acknowledge this.

Wise man: Can you recall what you learned in biology class and explain how we see canaries?

Defne: Certainly. Sunlight is a mixture of many colors. When sunlight strikes a canary, the yellow light is reflected while the other colors are absorbed by the bird's feathers. The reflected yellow light travels in a straight line to our eyes. It passes through the cornea at the front of the eye and then reaches the lens. The lens, acting like a thin-edged magnifying glass, bends the incoming light and directs it onto the retina at the back of the eye. Here, a small image of the canary is formed. However, this image is quite small and is also inverted.

Wise man: How is this small image at the back of the eye transmitted to the brain?

Defne: I'm not sure. Isn't vision occurring here?

Wise man: No, vision always occurs in the brain. Loss of vision in individuals with brain damage is due to this reason. Is the image somehow transmitted to the brain as if it were a picture on paper?

Defne: Of course, not (laughing). However, I don't have any guess about how this image is transmitted to the brain.

Wise man: The small image of the canary at the back of the eye causes a response in the nerve endings in that area. This response results in an electrical current that travels to the brain's visual center. Thus, it is not the image itself that reaches the brain, but rather the electrical current caused by the image. Our brain interprets this electrical current using its color knowledge and converts it into an image. Thus, you perceive the canary. In other words, our brain reconstructs the image of the canary by interpreting the incoming electrical signals (electrical codes) [6]. Therefore, the perception of a colored canary is evidence of the existence of the concept of yellow in our mind, rather than the actual presence of a yellow canary [4].

Defne: I'm confused.

Wise man: So, the brain does not operate like a camera or a computer [6]. Objects in what we call the external world are converted into low-voltage electrical codes through our sensory organs and transmitted to our brain. While the brain remains in a dark and enclosed space, it uses this data to construct a "reality." Thus, the sounds you hear, the scenes you see, the tastes you experience, and the pains you feel are not things that truly exist; they are merely sensations produced by the brain. Therefore, the so-called external world is nothing more than each of our unique perceptions. This created reality is not the external world but a unique world constructed by the brain itself.

Defne: Are you suggesting that colors are actually produced by us, and that the color yellow does not exist in the external world? It's hard to believe this.

Wise man: Do you know how the telegraph, which is no longer used today, worked?

Defne: I know it was used for communication before the invention of the telephone. But I don't know how it worked.

Wise man: Imagine traveling back in time and wanting to send a message from one city to another. Instead of using pigeons, we use the telegraph. An electrical line is set up between the two cities, with a transmitter at one end and a receiver at the other. Additionally, a battery is included as the power source. Suppose the message is: "Tomorrow is the rose festival. You are all invited." When the transmitter operator presses the telegraph key, the circuit is completed and an electrical current flows through the wire. This current causes a clicking sound or a series of sounds at the receiver's end. Messages are transmitted using short and long clicks. For example, a short click followed by a long click signifies the letter "A." The Morse alphabet determines which sound represents which letter or punctuation mark. Therefore, the operator sending the message must know the Morse code and ensure that the correct clicks reach the recipient. Similarly, the receiving operator must know Morse code and be able to interpret the sounds into letters and punctuation marks to receive the message.

Defne: It's quite an indirect method of communication. But it's also clever.

Wise man: What happens if the transmitting operator does not know Morse code in this communication example?

Defne: In that case, the correct clicks will not be transmitted to the other end.

Wise man: What happens if the receiving operator does not know Morse code?

Defne: In that case, even if the correct clicks are heard, the operator would be unable to interpret them into letters or punctuation marks. Consequently, the message cannot be received in either case.

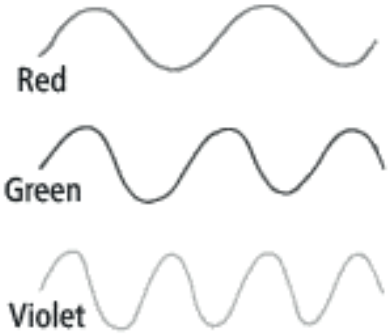
Wise man: This situation is similar to the process of vision. The image formed in the retina of the eye causes an electrical response, which then travels to our brain.

Defne: For our brain to assign meaning to this electrical current, it must possess some kind of knowledge.

Wise man: Through the knowledge of colors in our brain, we perceive the colors of nature. Given this, would you say that we see with our eyes or through our brains? Which expression is more accurate? [5]

Defne: I think it's more accurate to say that we see through our brains. The actual process of seeing happens in the brain. The color knowledge I have allows me to see yellow, and thus see the canary.

Wise man: Colors are actually composed of electromagnetic waves with wavelengths between **400-700 nm** [8]. These waves, which are a type of spreading energy, do not differ from other waves (infrared rays, X-rays, ultraviolet rays, radio waves, gamma rays, and microwaves) except in their wavelength and energy. Therefore, light waves within the 400-700 nm wavelength range do not have their own inherent colors. They are like other waves. However, our brain assigns colors to these light waves within this range. The interpretation only happens within this range. Therefore, color is a construct of the brain. There is no color in the external world.



Relative wavelengths of red, green, and violet light [7]**.**

Wise man: Now tell me. Is a rainbow a natural phenomenon occurring outside of us, or is it a spectrum of colors constructed by our minds?

Defne: As I understand it, there are no colors outside. Different wavelengths of light that reach our eyes cause different electrical signals on the nerves at the back of our eyes. Our mind assigns colors and thus shapes to these signals, constructing the rainbow. Therefore, there is no rainbow outside. The rainbow is a product of our mind. Is this also true for the sounds we hear?

Wise man: When we strike a porcelain cup with a spoon, a vibration occurs in the cup. The vibrating porcelain causes the air molecules to vibrate as well. These air molecules collide with each other, propagating this vibratory movement through the air until it reaches our ears. The vibrations first pass through the outer ear, then travel through the auditory canal to reach the eardrum. Air molecules striking the eardrum cause it to vibrate. These vibrations are then transmitted to the tiny bones in the middle ear, which amplify the vibrations mechanically by 20 times. The stapes bone

transmits these vibrations to the oval window. The oval window passes the vibrations to a fluid-filled, snail-shaped structure. The fluid inside this structure creates waves that stimulate the hair cells. These hair cells convert mechanical vibrations into electrical signals. These signals are transmitted to the brain via auditory nerves, where the sound is constructed.

Defne: So, you're saying that sound waves, like color waves, create a stimulus on the nerve cells in our ears, and this stimulus is conveyed to the brain as electrical signals?

Wise man: Yes, that's right.

Defne: The brain constructs the sounds from these signals.

Wise man: Yes. Therefore, there are no sounds outside. What reaches us is merely a movement of air or vibration. Sound is constructed in the brain and originates there for the first time.

Defne: Is this also true for the music we hear?

Wise man: Yes. Our perception of sound vibrations as music is an interpretation by our brain. Whether music sometimes makes us feel sad or sometimes exhilarates us is entirely a matter of our brain's interpretation.

Defne: People's different attitudes toward music are probably due to this reason.

Wise man: Some of us might enjoy jazz while others prefer country music. This diversity is a result of our mental differences.

Defne: Yes, it seems so. Are smells the same way?

Wise man: When we smell a rose, the scent molecules in the air enter through our nostrils. These molecules reach the olfactory epithelium located at the top of the nasal cavity. The olfactory epithelium is where the process of smelling begins and contains olfactory receptor cells. These cells are sensitive to specific scent molecules. Each olfactory receptor cell contains a receptor protein that matches a specific scent molecule. When scent molecules bind to these receptor proteins, an electrical signal is generated in the cells. These electrical signals reach the brain, where the smell is first perceived. Our brain constructs the scent.

Defne: So, once again, electrical signals reach our brain.

Wise man: Just like in color and sound, smell does not reach our brain directly. What reaches our brain are only electrical signals. The scent molecules emitted by the rose have no inherent smell. Our brain attributes a specific scent to these electrical signals caused by the molecules.

Defne: I don't understand.

Wise man: Scent molecules are generally volatile organic molecules, often composed of atoms like carbon, hydrogen, oxygen, nitrogen, and sulfur. Therefore, they do not have an inherent smell.

Defne: So, there is no scent outside. We perceive the scent. Can I say that?

Wise man: Yes.

Defne: Is taste the same way?

Wise man: When we chew or taste a food, the chemical compounds in the food mix with saliva and reach the surface of the tongue. The taste buds on the tongue contain specialized taste receptor cells. These cells detect the chemical compounds in the food through receptor proteins specific to these compounds and convert the stimulus into electrical signals. These signals are transmitted to the brain through nerve fibers from the taste buds. The brain receives these signals and constructs the taste. The brain builds a taste (bitter, sweet, sour, etc.).

Defne: Is touch the same way?

Wise man: Yes. When we touch an object, receptors in the skin are stimulated and these stimuli are transmitted to the brain via nerve fibers. The brain receives these electrical signals and constructs a sensation (hot, cold, hard, soft, rough, sharp, etc.). The sensation originates in the brain. This sensitive function of our brain allows us to recognize objects in our daily life and interact with them appropriately. As you can see, we do not have a direct contact with the external world. What reaches us from the outside is only electrical signals. We create our own world by converting these electrical signals into color, scent, taste, touch, and sound. The lush green trees, beautifully fragrant flowers, sweet fruits, babbling rivers, and singing nightingales are not outside somewhere but in our minds. They are constructions of our minds and have no reality.

Therefore, we are born with knowledge. We perceive the external world not by tasting, hearing, seeing, smelling, or touching it, but through concepts that exist innately in our minds. In other words, humans are not born with a blank mind but with fundamental concepts that allow them to hear, smell, see, touch, and taste. Without this knowledge, babies could not perceive the external world. If we had to learn everything later, we would not be able to perceive the scent of a flower we encounter for the first time.

Defne: You may be right about tasting, seeing, touching, hearing, and smelling. But many things, like numbers, I learned through observation later.

Wise man: Do you think humanity discovered numbers by looking at objects?

Defne: I think so.

Wise man: How did this discovery happen?

Defne: By observing birds, we felt the need to count them and discovered numbers.

Wise man: In fact, it was the opposite. First came mental development, then practical application. Humans first learned numbers conceptually and then could count objects. Numbers are not found in nature. Numbers are mental constructs. Do you believe that we discovered the number four by stumbling upon something like the number 4 in nature?

Defne: Certainly not. Such a thing is impossible. Numbers do not exist in nature.

Wise man: Do you think concepts like compassion and love exist in nature?

Defne: Certainly. You can see compassion and love in a deer nursing its fawn.

Wise man: Is it because these concepts exist within you that you can see them? Or do you acquire these concepts through observing them?

Defne: I learn by observing them. We see what exists in the external world. Nothing that exists only in our minds can be found in the external world.

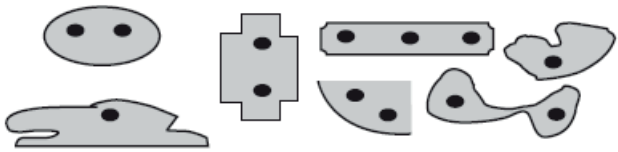
Wise man: Then, how did we learn the concept of infinity? Do you believe we have encountered an infinite number of trees, houses, or sheep on Earth?

Defne: Day and night follow each other infinitely.

Wise man: Despite no real measurement of perfection, how did we conceive laws in the natural sciences that provide perfect results? In this world where every entity has an end, how did humans come to the idea of infinite life? How did we come up with the concept of a perfect circle? How did we conceive a frictionless environment in physical laws? How did these things, which do not exist in the external world, come to exist in our minds?

Defne: However, historical scientific developments do not support your claim. In 1831, Darwin observed animals and plants on an island during a sea voyage and proposed the well-known theory of evolution. So, he observed first and then developed the idea. This contradicts your assertion.

Wise man: Darwin had knowledge of evolution theory long before he proposed it. For example, his grandfather's book, *Zoonomia: or the Laws of Organic Life*, discussed the concept of evolution. Many philosophers had discussed evolution before him. Therefore, Darwin had this idea long before. Thus, Darwin did not discover the concept of evolution by observing nature. Instead, he learned about the theory of evolution and then observed nature to find evidence supporting the theory. Thus, during the development of theoretical knowledge, scientists first develop ideas, formulate hypotheses, and then conduct observations to support these ideas with data. Below are some microorganisms. Which one or ones do you think belong to *Oraminex? (Image source number 13)*



Defne: How could I possibly know that? What is Oraminex?

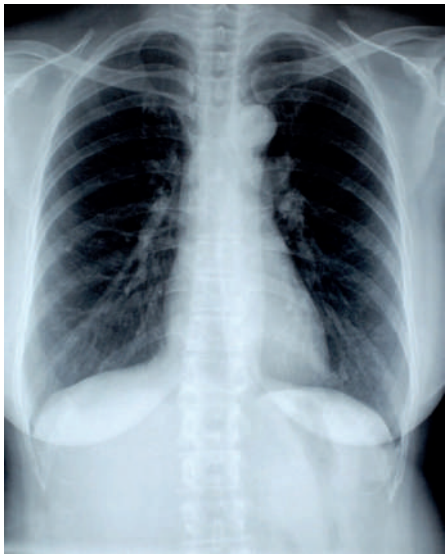
Wise man: So, you imply that knowing what Oraminex is must precede any attempt to identify it?

Defne: Yes, precisely. If I understand its definition, I can recognize it.

Wise man: And would this remain true, even if you were given ample time to observe?

Defne: Yes, no matter how much time I have, the principle remains the same. We observe the external world not directly through our eyes, but through the lens of the concepts we already possess. In other words, we see and understand the world only to the extent of our knowledge.

Wise man: Consider this X-ray of a patient's lungs. Do you discern any illness here? If so, what might it be?



Defne: How could I say that? I'm not a doctor.

Wise man: What do you think a doctor would say if they looked at this film?

Defne: They would give a clear diagnosis about the person's condition.

Wise man: What if I gave you a long time to observe?

Defne: I still don't think I'd be able to make a diagnosis.

Wise man: So what is the difference between you and a doctor?

Defne: Doctors have medical training.

Wise man: There's a difference in knowledge between you. What do you see below?[18]

$$(x - h)^2 + (y - k)^2 = r^2$$

Wise man: What do you think this equation means?

Defne: I'm not sure. It's complex…

Wise man: If we showed it to a mathematician, they would immediately say it's a circle equation.

Defne: I suppose so. Knowledge must come first. I see and perceive the external world based on what I know.

What Did I Learn?

In this section, I learned the following about **knowledge:**

- I interact with the external world through my sensory organs (eyes, ears, skin, tongue, nose).
- My sensory organs transmit inputs from the external world to my brain via electrical signals.
- Therefore, the external world cannot be accessed directly.
- My brain reads these electrical signals and converts them into sound, images, taste, touch, and smell.
- I see and perceive the external world based on my knowledge.
- The source of knowledge is not the environment. Knowledge always exists before observation. Without knowledge, we could not make observations. We would not be able to perceive colors, pain, sweetness, music, etc.
- The sensory experiences I attribute to the external world are constructions of my brain. Thus, I am amazingly creating my own unique world.
- The existence of the external world, therefore, remains unknowable. Further, the true nature of the external world can never be known or understood.

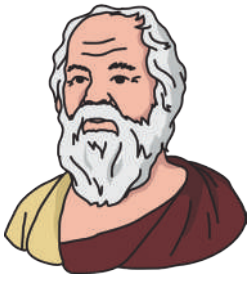
CHAPTER 2

Could written words be the source of our knowledge?

Define:

Do you think words could be the source of our knowledge?

Wise man:



Words are merely symbols, and their connection to meaning is arbitrary[16].

Define: How can you say that words have no meaning? Everyone, for example, knows what the word "cat" means. When someone says "cat," people will talk about a small, cute, soft-furred creature with many other characteristics. So, the word "cat" has a similar, common meaning for everyone.

Wise man: The word "CAT" is made up of the letters C-A-T and is merely a symbol. It has no direct connection to a living cat that gives it meaning. For example, what do you think the phrase "It's raining cats and dogs" would remind a child reading it for the first time?

Defne: I guess they would imagine cats and dogs falling from the sky.

Wise man: But this phrase actually refers to very heavy and intense rain. So, the child would not be able to discover the meaning of heavy rain just by reading, thinking about, or hearing this phrase. Words are simply symbols. Their connection to meaning is arbitrary or random[16]. For instance, the word "bird" in English and "kuş" in Turkish have roughly the same meaning, but they differ in both spelling and pronunciation.

Wise man: Meanings are represented by different words in different languages. This shows us that the relationship between a symbol and its meaning is arbitrary.

Defne: It seems so.

Wise man: For example, what does the symbol shown below mean?

Defne: It means approval.

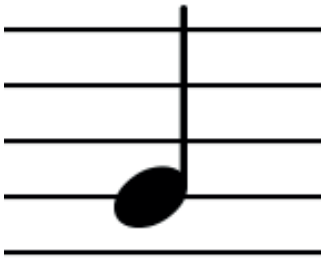
Wise man: What do you see now?

Defne: A red bead.

Wise man: What would a painter say?

Defne: The color red also represents warmth in a painting.

Wise man: What do you see now?



Defne: This is a musical note. G note.

Wise man: How long is its duration?

Defne: One quarter.

Wise man: So, we assign meaning to symbols made of lines, colors, shapes, or words made of letters. They don't have inherent meaning.

Defne: It seems so.

What did I learn?

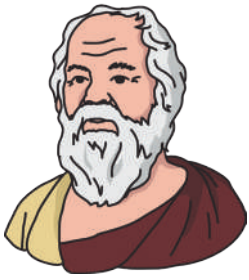
In this section, I learned that:

• There is no inherent meaning in words or symbols. Rather, we are the ones who assign **meaning** to them.

CHAPTER 3

What is meaning, and where is it located?

Wise man:



Where is meaning located?

Defne:

From what I've learned in the previous sections, I am convinced that meaning does not exist in the external world. It's also clear that meaning is not in words or symbols. Therefore, our surroundings and books cannot be the sources of it. I have no idea at all.

Wise man: Meaning is found in our minds and is an abstract entity.

Defne: But concepts like books, tables, the sun, and trees are visible objects. I can see and touch them.

Wise man: Do you think the word "tree" and the object "tree" are the same?

TREE

Defne: When we say "tree," we think of something with green leaves and a brown trunk, like the one above. We can see it, sometimes smell it, and touch it.

Wise man: When we see a tree, is what we see an object that exists in the external world, or is it an object we create in our mind?

Defne: I learned the answer to this question in the first section. All the objects we see are images constructed in our minds. There may or may not be such objects in the external world. We have no certainty about that.

Wise man: How does our mind create these images?

Defne: The meanings in our mind interpret the electrical signals sent to the brain, which leads to the formation of the image.

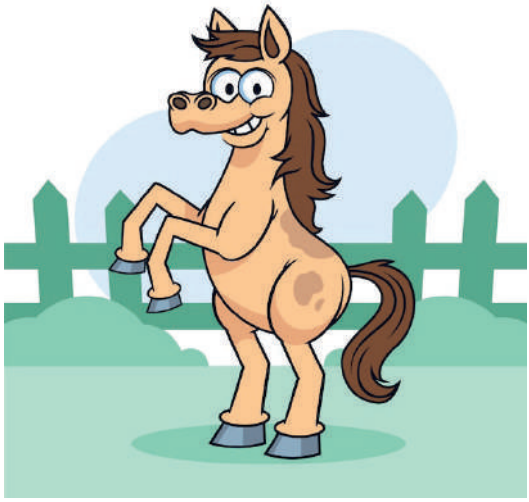
Wise man: Therefore, the meanings of objects like books, tables, the sun, and trees exist in our minds, making these meanings abstract.

Defne: It seems so. Yet, in school, I learned that objects like books, tables, the sun, and trees are concrete concepts.

Wise man: The meanings in our minds are abstract entities. They enable us to touch, smell, taste, hear, and see. Meaning doesn't represent the common characteristics of a group of objects, but rather the distinctive features that separate one object from another within a system[17].

Defne: Sometimes you're hard to understand.

Wise man: What do you see below?



Defne: That's a horse.

Wise man: I'm surprised you so quickly recognized it as a horse.

Defne: I don't understand why you're so surprised.

Wise man: Below is a picture of a real horse. Don't you think these two images are quite different from each other?

Defne: I think they look alike. In our minds, there is a copy of the living beings from the external world. There is a copy of the horse in my mind too. I recognized the horse because the horse in my mind matches the horse in the first image.

Wise man: If that were the case, you shouldn't have been able to recognize it as a horse.

Defne: Why?

Wise man: Because the first image doesn't look like a real horse. When compared to a real horse, for example, if you compare the proportions of the body and the head, you'll see that the horse in the first image is quite different from the one in the second image. Also, in the first image, the horse's eyes are popping out, whereas in the second image, the horse's eyes are small and almost invisible.

Defne: It seems so.

Wise man: Moreover, I doubt you've ever encountered a smiling horse before.

Defne: You're right.

Wise man: Yet, despite all of this, you immediately recognized it as a horse.

Defne: I did. Because there are certain general features in the image that I know belong to a horse. For example, a single hoof, a long mane, a long hairy tail, short upright ears, and a long head are common features of horses.

Wise man: Are these features general, or are they distinguishing features?

Defne: General features that all horses have.

Wise man: All horses also move, their bodies are covered with short hair, and they can see and hear. Yet you didn't mention any of these features.

Defne: Yes, I didn't mention them.

Wise man: Therefore, a single hoof, a long mane, a long hairy tail, short upright ears, and a long head are not general features of horses, but distinguishing features that set them apart from other animals.

Defne: It seems so.

Wise man: Our mind focuses on the distinguishing features that separate one group of objects from another. The meaning related to horses in our mind includes these distinguishing features. In other words, our mind

records the features that separate horses from other groups of animals. This meaning allows us to recognize and differentiate horses from the living creatures we see in the external world. Therefore, we don't copy the external world. The meanings in our minds exist by differentiating themselves from other meanings. Can you read the text below?

The menaings of wirtten words in our mnid are not excat coipes. Rethar, each one is ditingshieud from ohters by the cosdirenation of frist and the last ltteer.

Wise man: Our mind does not replicate each word exactly. If it did, you wouldn't be able to read this text. Instead of replication, our minds encode the first and last letters of words, distinguishing them from others. When reading, we focus on those letters to anticipate the words, enabling faster reading but also making us prone to errors with similar words.

Defne: I must admit, I'm very surprised by this. Is it the same in other languages, like in Turkish?

Wise man: Yes. Below is a sentence written in Turkish, and Turks were able to read it as soon as they saw it, even though many of the words were scrambled.

Zihinimz, kelmilelri bir büütn olaark deiğl, her bir kleiemyi dieğr kelmielreden ayraın özlleikelri kaydeder.

Defne: This shows that despite our linguistic differences, our minds work within a universal law.

Wise man: I suppose so. These meanings in our minds are usually represented by a word or a symbol.

Defne: Yes. I learned that in the previous section.

Wise man: But meanings don't have an absolute meaning.

Defne: You're being confusing again. You just explained what meaning is, and now you're telling me meanings have no meaning. You can easily find a definition for every concept in dictionaries.

Wise man: What do you think "two" is?

Defne: It's a natural number that comes after 1.

Wise man: How else would you define it?

Defne: It's a natural number that comes before 3.

Wise man: In both of these definitions, you always referred to another concept. In this case, you couldn't define the number 2 without referencing 1 and 3. I want you to define the number 2 without referencing any other concept.

Defne: I'm not sure if I can do that. I think I need to think about it for a bit.

Wise man: Let me ask you an easier question then. How would you define the letter "u"?

Defne: It's the 21st letter of the alphabet, coming before the letter "v."

Wise man: Can you define it without referencing the alphabet or the letter "v"?

Defne: I'm certain of the existence of the meanings in my mind as a whole, but when I try to capture them one by one, I can't seem to do it. It feels impossible to me that a concept could have meaning on its own.

Wise man: The search for the meaning of a concept always leads to another concept or meaning, not to the meaning itself. In other words, meanings always reference other meanings. According to Jacques Derrida (1930-2004), meaning tries to find its place within a system by differentiating itself from other meanings[19]. But this attempt to find a place is pointless. They try to exist together with other meanings. That's why meaning has no absolute place in the world of meanings. Therefore, it's without existence.

Defne: It seems so.

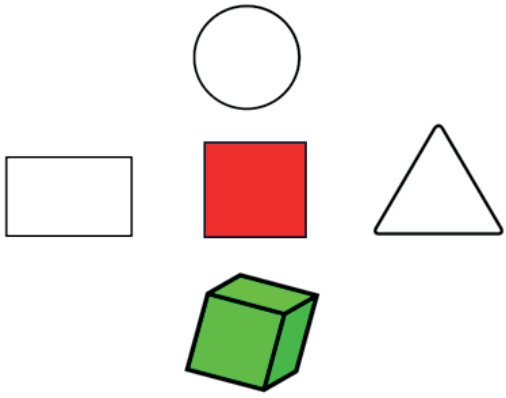
Wise man: What do you think a square is?

Defne: I'll make a definition based on what I remember. I might be missing something. It's called a plane figure with four equal sides and four corners.

Wise man: In this definition, you still referred to other concepts.

Defne: No, I gave the definition of the square itself. This definition describes it exactly, not something else. This time, it seems I might have captured its meaning.

Wise man: First, take a look at the shapes below.



Now, let's closely examine the definition you just made. In your definition of a square, when you said it consists of sides, you implicitly indicated that it's not a circle. When you said it has four sides, you suggested that it's not a triangle. When you mentioned that the sides are of equal length, you implied that it's not a rectangle. And finally, by calling it a plane figure, you pointed out that it's not a cube. In this way, you defined it. While defining the square, you implicitly referred to other concepts. You defined the square by referencing and differentiating from the circle, triangle, rectangle, and cube and highlighted how it differs from them. Therefore, you still couldn't make an absolute definition.

Defne: It seems so.

Wise man: Therefore, meanings don't have absolute meanings. They always try to exist through their differences from related concepts. What they are not is more important than what they are. That's why they never truly have a place of their own. Each meaning or concept can only have meaning within the overall structure of language. The meaning of any concept comes from its distinction from other concepts. For this reason, meaning doesn't have an absolute fixed point or position, and it never will. Moreover, concepts exist on unstable ground. Meaning continuously shifts, transforms, and differentiates[19]. In other words, within the entirety of the system, it constantly undergoes shifts. It's in a state of continuous change due to new learning or forgetting. Each new differentiation destroys or disrupts the previous one. Meaning is elusive and its boundaries can never be fully defined.

Defne: What kind of destruction is this?

Wise man: How do you think young children interpret a flying grasshopper when they see it for the first time?

Defne: To them, it could be a bird.

Wise man: When they learn from school, a book, or their mother that a grasshopper is an insect, they realize that not every flying creature is a bird. In this way, the concept of "bird" undergoes a change or a shift in meaning. Now, a bird is something that is not a grasshopper.

Defne: It seems like this is a destruction that happened through new learning.

Wise man: Indeed. Remember, meaning is subjective, timeless, without existence, abstract, and can be forgotten or remembered. Some meanings are indefinable.

Defne: You're being unclear again. I think every concept can be defined. We've done it countless times before.

Wise man: Can you define colors for me? For example, what does "red" mean?

Defne: I don't think that's possible. You have to see it.

Wise man: Can you describe the taste of something bitter?

Defne: It's impossible to explain. You'd have to taste it yourself to understand what it means.

Wise man: Do you think the same goes for the sound of a roar, the feeling of a sting, or the smell of a rose?

Defne: Yes. How could I explain them to you? You can't have an idea about them without experiencing them.

Wise man: These fundamental concepts, which allow us to taste, smell, feel, see, and hear from birth, are indefinable. We don't learn colors; we innately know them. We don't learn smells; we innately know them. We don't learn tastes; we innately know them. And we are never able to define them.

What did I learn?

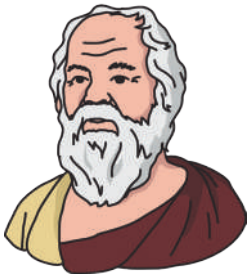
In this section, I learned the following about meaning:

- Meanings do not have **absolute meanings**. Meanings are without existence.
- Meaning has no absolute, **a fixed point** or a certain position and never will.
- The search for the meaning of a concept will always lead you to another concept or meaning. Meanings always refer to **other meanings**.
- The foundation of meaning is **unstable**. New learning or forgetting can cause shifts or distortions in meaning.
- The meanings in our minds exist as a whole. We can feel this. However, when we try to capture them **one by one**, we see that we cannot.
- Meaning is **subjective, timeless, without existence, abstract, and can be forgotten or remembered.**
- The fundamental concepts that allow us to taste, smell, feel, see, and hear from birth are **indefinable.**

CHAPTER 4

What is the source of meaning?

Wise man:



What is the source of meaning in our mind?

Defne:

I learned that we are born with the knowledge of some meanings, such as colors and smells. However, I learned concepts like rational numbers, the concept of justice, acceleration, and many others later in life.

Wise man: Do you think if we gave the same education to a young monkey, it could learn rational numbers, the concept of justice, and acceleration like you did?

Defne: I don't think it could.

Wise man: According to Plato, while the human mind is ready to learn such concepts, this is not the case for animals[5]. He believes that every concept we learn is a form of recollection. Knowledge cannot come from nothing; it can only be remembered if it already exists.

Defne: You might be right.

Wise man: The knowledge you possess is always recalled or learned as a result of social interactions. Learning first appears in a social context and is later acquired by the individual through psychological effort[20]. Therefore, every meaning we possess emerges as a product of our social interactions. The meanings we have are not entirely our own, but once belonged to someone else. Concepts like rational numbers, justice, and acceleration are inheritances passed down from our ancestors.

Defne: What does social interaction mean?

Wise man: It's the dialogues we have with others.

Defne: What does dialogue mean?

Wise man: It's the exchange of speech between at least two people[21]. In this exchange, each statement is a response to the previous one and also the cause of the next one. These statements complement each other to form a chain of conversation. We call this chain a dialogue.

Defne: Maybe I can understand it better if you give me an example.

Wise man: Please take a close look at the two texts below.

Interaction I

Teacher: What is the reason hot air balloons can rise in the sky?
Student 1: It's because the pressure is lower at higher altitudes.
Teacher: No. Does anyone else want to share?
Student 7: The pressure inside the heated balloon increases. After a while, the internal pressure becomes equal to the external pressure.
Teacher: Correct.
Student 5: In this case, the gas density decreases.
Student 7: Since the density decreases, the balloon rises.
Teacher: Correct. Heat causes an increase in the kinetic energy of the gases, which results in an increase in internal pressure. Due to the rising internal pressure, the gas density decreases. This causes the balloon to fly. You explained it very well.

Interaction II

Teacher: What is the reason hot air balloons can rise in the sky? (A short film of a flying balloon is shown. In the film, it is observed that the air inside the balloon is heated by a flame, and the balloon slowly rises.)
Teacher: How did the balloon rise?
Student 2: Because of the flame.
Teacher: Good. How did the flame affect the air in the balloon?
Student 5: It heated the air inside the balloon. When the air heats up, the gas particles move faster.
Teacher: What happens when the gas particles in the air move faster?
Student 4: The gas particles hit the walls of the balloon more rapidly from the inside.
Teacher: So, you're saying the internal pressure increases. What happens next?
Student 2: Since the bottom of the balloon is open, some of the hot air inside escapes until the pressure inside equals the pressure outside.
Teacher: Good. What happens after that?
Student 1: The number of gas particles, or the amount of air inside the balloon, decreases. The air inside the balloon becomes less dense.
Teacher: Let's compare the air density inside and outside the balloon.
Student 1: The air outside will be denser compared to the inside.
Teacher: What does it mean for the density to be low?
Student 3: A similar thing happens in liquids. If we mix water with olive oil, the oil always rises to the top. Similarly, since the balloon's density is lower, it rises.
Teacher: Good. To summarize: The flame caused the air inside the balloon to heat up. The heated gas particles increased the pressure from the inside. However, since the bottom of the balloon is open, some of the gas particles escaped. This led to a decrease in the amount of air inside, and thus a decrease in density. The lower density caused the balloon to rise.

Wise man: Which text, in your opinion, contains a dialogue?

Defne: Both texts seem to show a dialogue.

Wise man: In Interaction I, are the responses the cause of the next question?

Defne: The interaction consists of independent responses to the first question.

Wise man: In the second text, are the responses the cause of the next question?

Defne: Yes. In Interaction II, each student's answer seems to have led to the teacher's next question. Therefore, the statements from both the teacher and students follow each other in a cause-and-effect relationship.

Wise man: We call this a conversational sequence, and the resulting pattern is what we call a dialogue.

Defne: I think I understand what you mean better with this example.

Wise man: Meaning, therefore, is constructed by the learner through such dialogues between the knower and the learner. Learning always takes place through individual effort, where energy is expended by the learner. This construction process occurs on a psychological level. Therefore, a learning process that begins with social interaction concludes on a psychological level. Both levels are crucial for learning to take place. Additionally, learning occurs as a result of successive, interrelated contextualizing actions[22].

Defne: What does that term mean? I've never heard it before.

Wise man: In the dialogue between the knower and the learner, the knower draws the learner's attention to a specific point on the social level each time. This act of drawing attention is called contextualizing action.

Defne: I have no idea what you mean. How could context play a role in meaningful learning?

Wise man: Meaningful learning can only be achieved within its real context[23]. Imagine a candy seller who, like you, learned basic math in school. Let's say they sell each candy for $1.10. That day, a customer buys 11 candies. How do you think the seller would calculate the price, and how much would they charge?

Defne: Since the seller learned math like I did, they would do a multiplication: 11 x 1.10 = 12.10. So, the candy seller would charge $12.10.

Wise man: Your multiplication is undoubtedly correct, but unlike you, the seller would charge exactly $12, no more.

Defne: But wouldn't that be an incorrect calculation?

Wise man: To the seller, the 10 cent has no value. They've already made enough profit from selling 10 candies.

Defne: Yes, that makes sense.

Wise man: How do you think the seller came to this conclusion that the 10 cent is worthless in this situation?

Defne: After many sales, they must have learned when 10 cents is valuable and when it's not.

Wise man: In other words, the child has learned the meaning of money within its real context. Therefore, meaningful learning is not independent of its real context.

Defne: I think that's true. Since I haven't had such an experience, I haven't developed that kind of understanding about money. Let's return to what you meant by **contextualizing action**.

Wise man: Imagine children playing a shoemaking game in a corner of the classroom where several shoe boxes are placed. What do you think shoemaking might mean to a child?

Defne: It's probably a place where many shoes of different colors are bought and sold.

Wise man: The teacher is talking to the children playing the role of sellers. First, the teacher asks them to classify the shoes as adult or children's shoes. This is the first **contextualizing action**. In this action, the children are made aware of the relationship between shoe size and age. Then…

Defne: The teacher might ask them to separate men's and women's adult shoes.

Wise man: That's the second **contextualizing action**. In this action, attention is drawn to the relationship between gender and shoe type. Can you guess the next step?

Defne: I think the teacher might point out the numbers inside or on the bottom of the shoes.

Wise man: That's the third **contextualizing action**. Here, attention is drawn to the relationship between the numbers on the shoes and foot size. After that…

Defne: The teacher directs the students' attention to the labels on the shoe boxes, explaining that these numbers indicate the price of the shoes. This is the fourth **contextualizing action**. In this action, the relationship between the label and the price is emphasized.

Wise man: These dialogues continue in this way, followed by the students acting out the roles of sellers and buyers. All the students witness the buying and selling of shoes. By the end of the lesson, they will have developed an understanding of what shoemaking is. This is meaningful understanding. In this learning environment, along with the conversational sequences, **contextualizing actions** also took place. Through a series of interconnected **contextualizing actions**, the students' attention was drawn to different aspects of buying and selling. Each time, the students encountered an element of the shoemaking context. Therefore, the learning process is an enriching one. At the end of each **contextualizing action**, the students were asked to focus on one component of the shoemaking context. Each focus created a deeper understanding of the concept of shoemaking. First, the children's attention was drawn to the classification of shoes into children's and adult categories. Then the shoes were separated by gender. Then by length, and then by price. After that, buyers and sellers came into play. Through this series of interconnected **contextualizing actions**, the children developed an understanding of shoemaking. Since this understanding developed within a specific context, it was meaningful to the children. Shoemaking was no longer just the buying and selling of shoes based on color but the buying and selling of shoes differentiated by age, gender, foot size, and price. Thus, the meaning of shoemaking became richer. For the child, shoemaking is now the exchange of shoes that vary in color, type, size, and price.

Defne: Was there a similar situation in the dialogues given above?

Wise man: Yes. In **Interaction II**, notice how the teacher drew attention to the air inside the balloon, gas particles, temperature, and the heat generated inside the balloon. In this interaction, we encounter a series of interconnected **contextualizing actions**.

What did I learn?

In this section, I learned the following about dialogue:

- The source of the meanings in our minds is the **dialogues** we have with others.
- Learning begins with dialogues established on a **social plane** and is then constructed through individual effort on a **psychological plane**.
- Learning occurs as a result of successive, interconnected **contextualizing actions**.
- A contextualizing action is when the teacher **draws attention** to the components of a context that they consider important.

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Defne & Wise man discuss the Meaning of Meaning

Prof. Dr. Yilmaz Saglam

In this book, one of the most intriguing and timeless concepts—meaning—is thoroughly examined. The narrative is structured around a series of dialogues between two characters, in which they delve into profound discussions about what meaning truly is, where it can be found, and how it emerges. These conversations are a blend of thoughtful inquiry, sometimes grounded in the latest research, and other times rooted in pure logic and philosophical reasoning. The exploration is not only an intellectual journey but also a reflection on how we, as individuals, assign and understand meaning in our lives.

Through these dialogues, the book invites the reader to ponder, question, and perhaps reshape their own understanding of the world around them. While some moments are deeply analytical, others allow space for lightness and contemplation, offering a balance that keeps the reader engaged throughout. It is my hope that readers will find this book both intellectually stimulating and accessible, a journey where complex ideas are presented in a way that is both enjoyable and enlightening. May your experience with this book be not only an intellectual endeavor but also an enjoyable one, where the pursuit of knowledge and pleasure blend seamlessly. I wish you a delightful and thought-provoking read.

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