Scripts of Realization For the Dualist

A Scientific Reflection

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Graduation Project

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June 2022

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Abstract

Explanatory Gap, a term coined by Joseph Levine, describes the scientific explanations' inability to account for the qualitative characters of phenomenal states, such as feelings (Levine, 1983). The way we understand abstract concepts is metaphorical in nature and these metaphors govern our thoughts, as well as actions (Lakoff & Johnson, 1981). Our phenomenal states are abstract concepts and how we linguistically refer to these states shapes our understanding of them. The way we speak about emotions and ideas provides a mental framework for these concepts and this framework divides the mind and the body by implicitly locating emotions in the body and ideas in the mind through conventional metaphors. Levine states that our intuition about our phenomenal states are resistant to change and until we solve this, we won't be able to pass the mind-body dualism (Levine, 1983). Consequently, the explanatory gap gets reinforced through our use of daily metaphors and figurative speech when we hear to "follow our heart" or when an idea "crosses our mind" because these phrases reflect an implicit mind and body separation.

Human cognition is "poetic and figurative by nature" (Gibbs, 1994, p. 1), just like our metaphors. If metaphors do lend a perspective on how we understand abstract concepts, then the metaphors I gave as an example above would give a glimpse of how we conceptually locate substances of the mind and body in distinct mental spaces. Building from this thought, I believe that if we can linguistically reconstruct our conventional metaphors in a way that doesn't implicitly locate emotions and ideas in fixed distinct places, this can lead to a new structured way of thinking that eliminates the mind-body dualism from our thought frameworks. In this paper I will be reflecting on my research that led me to develop my *Scripts of Realizations For the Dualist*.

Introduction

(1) I am happy because dopamine and serotonin are being released in my brain.

I have just stated my awareness of my subjective emotional state and a part of its scientific explanation. You can guess what I might feel, but the explanation of serotonin and dopamine doesn't give you an insight to the qualitative experiences of my happiness. I want to rewrite this sentence :

(2) *I am happy because I have finished my graduation project.*

Reading sentence (2), perhaps you understand the subjective reason for my happiness. Sentence (1) could give an insight into the functional processes involved in my happiness, however it doesn't explain why my subjective experience of happiness feels the way I feel it, nor the reason for my particular experience. What are your feelings? Is there any cortisol in your bloodstream resulting in stress? What led to that cortisol to be released? If you are happy, what is the instance that led your neurotransmitters to be fired? Does the scientific explanation account for your subjective mental state of your feelings?

Joseph Levine would say that *firing of cortisol doesn't explain why stress feels the way it does*. Additionally, Thomas Nagel would describe this as the "subjective character of experience" which is "not analyzable in terms of explanatory systems" (Nagel, 1974, p. 436). And this is the explanatory gap or the "hard problem of consciousness" (Chalmers, 2017, p. 2) we are left with, the gap between the functional and the subjective explanation of a mental state. This gap also reflects the mind and matter separation highlighted by Descartes in his meditations.

In *Meditations On First Philosophy,* Descartes participates in a thought experiment to find out what it means to have knowledge of the world. After concluding that he exists, because he "is a thinking thing" (Descartes, 2008, p. 20), Descartes then tries to understand the world

outside of his thoughts, the material world. He arrives at the conclusion that the mind and the body are separate substances that interact with each other. Descartes also mentions the subjectivity of mental states and that the properties of a "thing" don't make that "thing". "For there is no connection between the tugging sensation and the decision to eat, or between the sensation of something causing pain and the mental distress that arises from it" (Descartes, 2008, p. 28). If we interpret the Explanatory Gap from this dualist perspective, mental states become matters of the mind and physical properties become matters of the body. Feelings are actually cognitive processes that result from the connection of many physiological and mental processes. Descartes himself also accepts that "the whole mind seems to be united to the whole body" (Descartes, 2008, p. 32). I believe that thinking about concepts in the mind-body framework provides the basis for the explanatory gap to appear. I wonder if there wasn't any dualist thought framework we think in, would there be a gap in our understanding?

How Metaphors Reflect the Way We Structure Our Thoughts

Our thoughts are unconsciously controlled by the systematizations of our native languages (Whorf, 1952) and metaphors, which are part of our languages, aren't just byproducts of figurative speech (Lakoff & Johnson, 1981) or merely ornamental (Ortony, 1975). Metaphors are important tools for us to transfer knowledge ((Lakoff & Johnson, 1981, Ortony, 1975). The nature of human cognition is metaphorical and knowledge emerges as a result of embodied physical and social experiences (Lakoff & Johnson, 1981) as well as the capabilities set by one's language (Whorf, 1952). One's native language plays an important role as it provides predefined thought structures to think about abstract concepts. If language is relative, as the Sapir-Whorf hypothesis (Lucy, 2002) suggests, then the mental images languages provide for its speakers might also be relative.

Researchers have done linguistic studies examining how we infer abstract knowledge from our subjective physical or linguistic experiences (Casasanto 2009; Boroditsky, 2011; Boroditsky & Ramscar, 2002; Jostman et al., 2009). Boroditsky & Ramscar have studied people's understanding of time as it's related to their spatial thinking patterns (Boroditsky & Ramscar, 2002). Boroditsky's more recent research shows that people speaking different languages can understand the same concepts differently, based on the word-concept mapping they have for these concepts (Boroditsky, 2011). In her research, Boroditsky talks about "how language shapes even the most fundamental dimensions of human experience: space, time, causality and relationships to others" (Boroditsky, 64). Boroditsky has seen that speakers of a language where writing direction is from right to left, like the Arabic language, organize time from right to left, compared to speakers of other languages organizing time from left to right, as it's their writing direction. Jostman et al. have found out that the "abstract concept of importance is linked to bodily experiences of weight" (Jostman et al., 2009, p. 1173), thus exemplifying how we make sense of abstract concepts through our physical experiences. These studies show that language, along with subjective experiences, enables or limits or creates a difference in our understanding of concepts, and shapes our cognitive abilities. They exemplify how language and its inherent figures of speech reflect how we understand the world around us and how we act upon this understanding.

From a cognitive linguistic perspective, building from theories of Lakoff & Johnson, Boroditsky and others, I think that Levine's explanatory gap is re-established and reinforced through our figurative languages in our daily lives because the metaphors we use to make sense of emotions and mental states inherently express a mind-body dualism that is embedded in our languages.

Metaphors help us to understand concepts with the help of other concepts that are known to us (Brown, 2003; Lakoff & Johnson, 1981; Ortony, 1975). One example Lakoff & Johnson give is the "Argument is war" metaphor. They inspect how we talk about the concept of argumentation through linguistic phrases and they reveal that our conceptual framing of argumentation borrows from our conceptualization of war. And to "attack" or "defend" a position or to "win" an argument reveals our conceptual framing of argumentation in terms of war. Additionally if a culture had conceptualized an argument as a "dance", their structural framework of an argument would differ and maybe for someone who doesn't have that metaphorical framework, what's being done wouldn't even look like an argument (Lakoff & Johnson, 1981, p. 5). The language of emotions and how we feel relies mainly on metaphors. Lakoff& Johnson claim that "this is typical of emotional concepts, which are not clearly delineated in our experience in any direct fashion and therefore must be comprehended primarily indirectly via metaphors" (Lakoff& Johnson, 1981, p. 85). Metaphors aren't random either, especially spatial metaphors like "good is up" are rooted in our "physical and cultural experiences" and "a metaphor can serve as a vehicle for understanding a concept only by virtue of its experiential basis" (Lakoff& Johnson, 1981, p. 18).

In this view, we can say that metaphors about emotions mostly locate emotional states in bodily sensations due to the physical experiential basis of emotions. It is understandable why our phrases for emotions locate them in our bodies rather than in our brain or the mind. But the truth that these metaphors fail to reflect is that emotions don't arise only from the physiological changes. Metaphors highlight some parts of a concept, while hiding other aspects of the same concept (Brown, 2003; Lakoff & Johnson, 1981). By highlighting the bodily aspect of emotions, emotional metaphors hide the mental aspect of emotions. Figurative speech is something we

learn simultaneously as we are learning to speak about things. We learn the metaphors that are embedded in our culture (Lakoff & Johnson, 1981). The metaphors we have been taught to understand abstract ideas creates the conceptual thought framework to think about those ideas. If we have a certain thought structure to think about a subject, how can we conceptualize that subject beyond the scope of the structure we think in?

Lakoff& Johnson talk about ontological metaphors and how they are "necessary for even attempting to deal rationally with our experiences" (Lakoff& Johnson, 1981, p. 26). Ontological metaphors, according to Lakoff& Johnson, help us understand abstract concepts as substances, entities or containers. Mind is a concept that is understood with the help of ontological metaphors. Seeing the "mind as a machine" is a further elaboration of the "mind as an entity" metaphor (Lakoff& Johnson, 1981, p. 27). Just like understanding the mind as a machine, we can easily understand the mind as a container of ideas. The sentence "I have an idea in my mind" would exemplify how we could structure the mind as a container. "We use ontological metaphors to understand events, actions, activities and states" (Lakoff &Johnson, 1981, p. 30). Just like the mind as a container for ideas, we can see the heart, symbolizing the body, as a container for emotions. We can exemplify this with being "heartbroken" or being "heartless". These examples show that we locate emotions and ideas in distinct conceptual containers through the way we speak about them. Most of the time, we don't consciously think about how our phrases shape our thoughts. "Ontological metaphors are so natural and so pervasive in our thought that they are usually taken as self-evident, direct descriptions of mental phenomena" (Lakoff& Johnson, 1981, p. 28). To say an idea comes to mind is never questioned twice, we understand the process behind it clearly, which means we share the same concept for it. This also applies to the phrases that locate emotion in the body. If we indeed make sense of things to the extent of our conceptual

system and our given conceptual system offers two distinct containers for emotions and ideas, can we operate in this thought framework and not separate the mind and the body? Furthermore, if we don't even realize that these figurative ways of speaking create mental meanings for us, how can we really expect to understand that "Pain is the firing of C-Fibers" (Levine, ,1983, p. 355)? In this sentence, pain is one abstract concept, a mental state, we understand through the help of metaphors. C-Fiber is another abstract concept that would need to be understood in terms of another concept. Furthermore, C-Fiber represents an "intellectual concept", a "concept in a scientific theory" (Lakofff& Johnson, 1981, p. 18-19). Scientific theories are almost often based on metaphors (Gentner, 1982; Lakoff& Johnson, 1981; Taylor& Dewsbury, 2018) and metaphors play a crucial role in scientific contexts (Brown, 2003). Since we don't have a grounding experience (Lakoff& Johnson, 1981) of how "intellectual concepts" are equal to mental concepts, we have an "Explanatory Gap" (Levine, 1983). The concept of C-Fiber doesn't fit our personal experience in any way. It's not grounded in our personal experience. Pain is already an abstract concept which we understand metaphorically. And since there is no similarity in our mental image for the concept of pain and the C-fiber, we can't understand one in terms of the other. The explanatory gap is there because we can't understand the meaning of the sentence with our already existing conceptual thought frameworks and additionally we are dealing with an intellectual concept.

Metaphors also have the power to create new perspectives for us (Lakoff & Johnson, 1981). Maura Flannery applied this thought into action when she adopted quilting as a metaphorical term for scientific inquiry (Flannery, 2001). Her aim has been to associate scientific inquiry with more communal and less dominating aspects of quilting and to make the process of scientific inquiry more "inclusive, responsive and human" (Flannery, 2001, p. 642).

This research does show that new metaphors that make sense can be used for existing thought processes to liberate them from existing thought patterns.

The Aim: How Do We Unite the Mind With the Body?

In the light of Flannery's research, I wonder; can we eliminate dualist ways of thinking from our thought patterns by creating new metaphors that make sense to us? "We are physical beings, bound and set off from the rest of the world by the surface of our skins and we experience the rest of the world as outside us" (Lakoff& Johnson, 1981, p. 29). Our first metaphorical understanding comes from a definitive inside-outside differentiation we experience through our bodies. Furthermore, "metaphorical concepts can be extended beyond the range of ordinary literal ways of thinking and talking into the range of what is called figurative, poetic, colorful or fanciful thought and language. Thus if ideas are objects, we can dress them up." (Lakoff & Johnson, 1981, p. 13). If our first spatial understanding of inside and outside comes from our body, and if mind and body are containers, can these containers be housed in the body? Can the emotions and ideas change containers, as long as they are still in the same housing facility, which can be our bodies? Perhaps then we can extend our conventional metaphors in a way that unites our dualist frameworks rather than creating new metaphors. Maybe the key is creating a coherent story through conventional metaphors beyond the existing conceptual spaces we have.

My aim has been to achieve this: if metaphors can be extended, can I merge the metaphors that locate ideas in the mind and emotions in the body in a coherent story that doesn't draw a clear line between where these two concepts come from? An interesting attempt to close the explanatory gap might be linguistically re-conceptualizing the mind and the body dualism in a way that eliminates the distinct mind-body containers in our metaphors. I believe that extending conventional metaphors could lead to new ways of understanding and thinking. Once

we start applying this in our language, if the ways in which we think are re-structured, then maybe we won't contrast emotions to ideas and place them in separate place holders.

<p align="center">Comparable Works</p>

To give my work some external context, I'd like to mention two comparable works that investigate the contradictory relationship between ideas and emotions, and how we conceive where these concepts are located at.

Heart and Brain Comics - The Awkward Yeti

Nick Seluk's *Heart and Brain* is a webcomic series that depicts scenes of conversations between the heart and the brain. In his series, Seluk depicts the heart often as the emotional, intuitive character while the brain is the rational and logical character who is trying to control the hearts' requests. In this view, the brain becomes a symbol to represent rational ideas while the heart represents the emotional counterpart. The heart often does the opposite of what the brain wants and there is a mismatch of their intentions. These comics are intended to be funny. At the same time they also investigate the meanings we associate with our brain and our heart. Below (Fig. 1 and 2) are two scenes from Nick Seluk's webcomics.
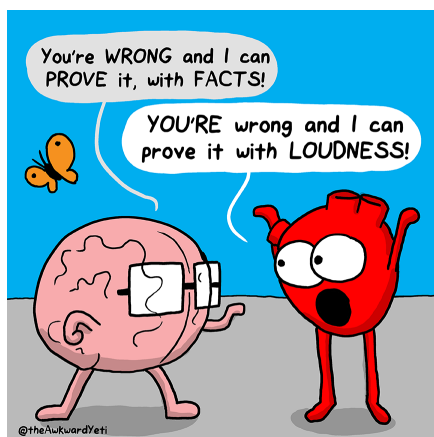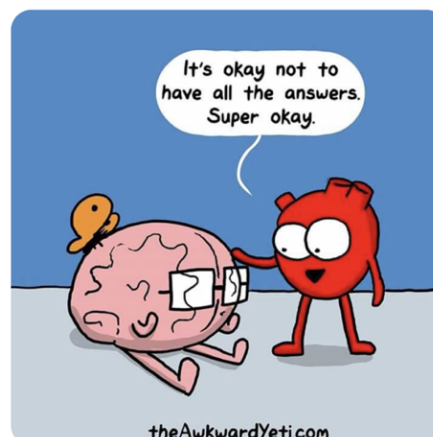
Figure 1
Loudness

Figure 2
Answers

No Thoughts In My Mind, No Feelings In My Heart - Eda Sütunç

The neon text installation (Fig. 3) created by Eda Sütunç in 2020 is another similar approach to my work in terms of context. The neon text piece that reads "No thoughts in my mind, no feelings in my heart" is a part of her installation *Robotic Meditation,* where the audience is invited to sit on a chair, looking at this neon sign. Eda called this neon text a digital mantra and the audience is invited to have a robotic sound meditation in this installation. As she explains it, this installation provides the audience "methods of cleansing from dichotomous, binary ways of thinking" (Sütunç, 2020). Although our format choice is very different, Sütunç is also offering her audience an alternative way to think about the conventional dichotomy of emotions and ideas.

Figure 3
Robotic Meditations

Choice Of Format

Deciding on the right format as an output has been a challenge. I wanted to choose a format that would let me describe two abstract concepts and where they are located in our bodies. I choose to write a script because it lets me to linguistically outline my thought framework while leaving a visually undefined space for readers' own imagination to intervene. I have chosen the format of a play as a script because the formal elements of a play, like the narrative description of the environment that comes before the dialogue, allowed me to describe a visual space for two abstract concepts without illustrating it. The setting that's laid out in the descriptions is not a conventional way we would imagine the mind. Usually, people don't imagine the mind "wandering in and out of the organs" (Avgen, 2022). In addition, the parentheticals used in the play, when the heart is "confused", lets me to posit the heart and mind as having separate thoughts that are contrasting with each other.

In his description of what is a dialogue, Albert A. Anderson differentiates dialogue from other forms of exchange, stating that "dialogue employs a dialectical method dedicated to examining and questioning assumptions, especially the ones we usually take for granted" (Anderson, 1998). Dialogue enables a way to find a common ground of knowledge through two agents communicating. By locating the heart and the mind as two agents of the opposite side of the same conversation, I wanted the heart and mind to conceptually arrive at a mutual understanding. The addition of the dialogue allowed me to create a conversative space that aims to reveal a knowledge that isn't inherently the starting point of the dialogue. Last but not least, since I believe that language structures our mental spaces, the form of a script, which is created through language, seemed plausible to state how language can reveal differences in our imaginations.

The Result: Script As the Final Format

As a result, I have written *Scripts Of Realization For the Dualist,* a script comprising six short scenes. In these scenes the heart and the mind of a protagonist is having a dialogue with each other to arrive at a new realization. The first five scenes inspect a conventional metaphor through a dialogue between the mind and the heart. In order to inspect these metaphors, I tried to expand more on the conventional metaphors such as "listen to your heart". In the second scene of the *Scripts Of Realization For the Dualist,* I am inspecting this metaphor:

```
                HEART
        (pulls the mind to itself)
    Help! She is listening, what do I say?

                MIND
          (calmly)
    Wouldn't it be weird if she actually listened to you
    and heard you?

                HEART
          (whispering)
    I didn't know she could either! What should I do? You
    are the one with the ideas.

                MIND
    If I am the one with ideas, and I am inside you, don't
    you think you can have ideas inside you too?

                HEART
          (thoughtful)
    But then the idea is neither yours nor mine alone.

                MIND
    Exactly, so let her listen to you. She will hear me.
```

The last scene of the script aims to provide a new structure that extends beyond the conventional metaphors we are used to. In order to do this, I tried to imagine the connection of the heart and the mind through extending conventional metaphors. I imagined the protagonist as a house, and the mind and the heart became parts of this house. In this house, the mind becomes a smart system while the heart becomes a chamber:

```
            PROTAGONIST
         (thinking out loud)
   How do I imagine myself? Am I a house?

   I, myself, must be a house. A house that comes with a
   smart home system. This smart system must be my mind,
   which records and regulates everything. It could
   theoretically give access to my heart chamber, open
   its doors, or block it. The residents of my home are
   feelings and thoughts. Sometimes these residents live
   in specific rooms, sometimes they go in and out of
   every room.  When my heart is broken, the smart system
   locks the heart room so no feelings or thoughts can
   enter or escape. My ideas wander in this house freely,
   just like my emotions, floating in and out of any room
   I have, being recorded in the mind…
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Reflection

From research to the artwork development process, this project has taught me a lot. At first, I was fascinated with the explanatory gap. Once I found my starting point, I started researching why I believe that the gap exists as Levine describes it. I made the association that this understanding might be related to how we speak about the things we know, especially abstract concepts, such as emotions. When I decided that I wanted to say something about how our figurative speech reinforces the understanding of the gap, I thought I could write a new metaphor that doesn't reflect this gap inherently. This was wishful thinking. After trying to write new metaphors, I have realized that I am already very immersed in the way I have been speaking about things and since how I speak reflects how I imagine these topics, I could not create a new metaphor from scratch.

At the beginning of my paper, I have stated that the explanatory gap gets re-established through our figurative languages, and I still believe this. But the biggest part I have been missing

at the start of my process is that the conventional metaphors are conventional for a reason; they are relatable to many and already internalized by many. So new metaphors can't provide some new thought frameworks without time and transfer through culture. Additionally, science is metaphorical. In addition to our daily life metaphors, there are the intellectual concepts of science which are metaphorical but not inherently relatable to many. With the help of Lakoff& Johnson however, I have realized that maybe I can create new stories from already existing metaphors. I have followed this direction and I believe I was able to extend beyond our conventional metaphors, but not for the intellectual concepts such as "C-Fiber". My biggest lesson to learn was that the explanatory gap will still be there, even with the extended metaphors, because the intellectual concepts which are abstract by nature will not be relatable to us physically.

The second biggest issue of this project was to choose the right artistic format. Before creating my script, I have tried other literary ways such as poems and quotes. Once I had some output in the form of poetry and quotes, I realized that it would be harder to present these formats in a scientific way during my thesis presentation. Afterwards I tried going towards the direction of creating comics like Nick Seluk's webcomics, however I realized that when I draw these concepts, I draw them in the way that I visualize them in my mind, which was very similar to what Seluk has done. I decided that I don't want to visualize the concepts I am talking about so that the audience can visualize them as how they see it with their imagination, and that maybe my textual description can challenge their visual imagination and offer them an alternative way of thinking. Writing a script worked well for this purpose because I could describe the scene and the conversation while the audience could imagine the visual setting themselves.

The last hardship was to decide on how to present the final format. I thought about the best ways of presenting an artwork in a scientific context. The classroom setting of the presentation space already had an academic feeling to it, the space wasn't presented as a gallery setup, so I anticipated that the expectations of my audience in this space would not have been the same as when they enter a gallery space. I have been suggested to have professional readers read my script. I believe if I incorporated two actors for two characters, then their physical relation to each other in the space would affect their abstract relation to each other and how the audience perceives their physical relation in their minds. In my script, I have described how the heart and mind can unite, exchange ideas and that they are located in the same place, just different compartments. Coming from this view, I believe that positioning the heart and the mind in two different readers would break the freedom of the audience's imagination to combine the heart and the mind. Thus I decided to read two excerpts from my script myself after introducing my topic.

I think I was able to create a coherent final format that reflects my research in an artistic way in the given time frame. I see my project as an initiation of opening up new thought spaces for myself, and hopefully for others.

Further Development

I believe that *Scripts Of Realization For the Dualist* can be appropriated to various other artistic mediums such as performance, video art or web based text art. It can even be turned into a performance lecture that could be presented in conferences. Additionally, I can test the effectiveness of my scripts by asking people to describe how they imagine the connection of the heart and the brain and whether emotions and logic contrast each other in their mental framework. Then I can make them read my script and evaluate their response on whether they

were thinking about the connection the same way as I described it. This could give me valuable insight and data on whether my script indeed offered a new way of thinking or not.

Conclusion

We live in preexisting realities with learned conventional metaphors. In our cultural stories we are faced with narratives that place the antagonist to *follow their heart*, *be rational,* or *don't act emotionally* and so on. These metaphorical phrases, expressed in situations one finds themselves in, divide the mind and body linguistically by containing things that come from the body and the mind to two distinct spaces. Furthermore, they have been transferred from earlier generations to us, which means that with time and transference we have internalized their meanings. Our figurative speech does reinforce the explanatory gap by locating emotions and ideas in two distinct mental spaces. However I have found out that changing the way we speak about abstract concepts, changing our metaphors alone isn't going to eliminate the explanatory gap. The explanatory gap is not just there as a mere reflection of how we speak. We might minimize the explanatory gap if we eliminate how we mentally locate ideas and emotions in distinct mental spaces. To close it however, we will need much more than just updating our figurative languages.

Works Cited

Anderson, A. (n.d.). Why Dialogue? Ancient Philosophy.
        https://www.wordtrade.com/philosophy/ancient/whydialogue.htm

Avgen, L. (2022). Scripts Of Realization For the Dualist.

Brown, T. L. (2003). Making truth: Metaphor In Science. University of Illinois Press.

Boroditsky, L., & Ramscar, M. (2002). The Roles Of Body And Mind In Abstract Thought.
        Psychological Science, *13*(2), 185–189. https://doi.org/10.1111/1467-9280.00434

Boroditsky, L. (2011). How Language Shapes Thought. *Scientific American*, *304*(2), 62–65.
        https://doi.org/10.1038/scientificamerican0211-62

Casasanto, D. (2009). Embodiment Of Abstract Concepts: Good And Bad In right- and
        left-handers. Journal of Experimental Psychology: General, 138(3), 351-367.
        https://doi.org/10.1037/a0015854

Chalmers, D. (2017). The Hard Problem to Consciousness. In S. Schneider & M. Velmans (Eds.),
        The Blackwell Companion To Consciousness. John Wiley & Sons.

Descartes, R. (2008). Meditations On First Philosophy (M. Moriarty, Trans.). Oxford University
Press.

Flannery, M. C. (2001). Quilting: A Feminist Metaphor For Scientific Inquiry. Qualitative
        Inquiry, 7(5), 628-645. https://doi.org/10.1177/107780040100700507

Gentner, D. (1982). Are scientific analogies metaphors? In D. S. Miall (Ed.), Metaphor:
        Problems and Perspectives (pp. 106-132). Harvester Press.

Gibbs, R. Jr. (1994). The poetics of mind: Figurative thought, language, and understanding.
        Cambridge University Press.

Jostmann, N. B., Lakens, D., & Schubert, T. W. (2009). Weight As An Embodiment Of
        Importance. Psychological Science, 20(9), 1169-1174.
        https://doi.org/10.1111/j.1467-9280.2009.02426.x

Lakoff, G., & Johnson, M. (1982). Metaphors We Live By. University Of Chicago Press.

Levine, J. (1983). Materialism And Qualia: The Explanatory Gap. Pacific Philosophical
        Quarterly, 64(4), 354–361. https://doi.org/10.1111/j.1468-0114.1983.tb00207.x

Lucy, J. A. (2002). Sapir–Whorf hypothesis. International Encyclopedia of the Social &
    Behavioral Sciences. Retrieved August 17, 2022, from
    https://www.sciencedirect.com/science/article/pii/B0080430767030424

Nagel, T. (1974). What Is It Like To Be A Bat? *The Philosophical Review*, *83*(4), 435.
    https://doi.org/10.2307/2183914

Sütunç, E. (n.d.). Robotic Meditation. Eda Sutunc.
    https://www.edasutunc.com/robotic-meditation

Taylor, C., & Dewsbury, B. M. (2018). On the Problem And Promise Of Metaphor Use In
    Science And Science Communication. Journal of Microbiology & Biology Education,
    19(1). https://doi.org/10.1128/jmbe.v19i1.1538

Ortony, A. (1975). Why metaphors are necessary and not just nice. Educational theory, 25(1).

Whorf, B. L. (1952). Language, mind, and reality. ETC: A review of general semantics, 167-188.

Figures

Seluk, Nick. (n.d.). Answers [Webcomic]. The Awkward Yeti.
    https://theawkwardyeti.com/comic/answers/

Seluk, Nick. (n.d.). Loudness [Webcomic]. The Awkward Yeti.
    https://theawkwardyeti.com/comic/loudness/

Sütunç, Eda. (2020). Robotic Meditation [Installation]. Eda Sutunc.
    https://www.edasutunc.com/robotic-meditation

Appendix: Scripts Of Realization For the Dualist

(1) FADE IN:

INT. HUMAN BODY

We are inside the human body. We see the heart pumping blood.
Meanwhile, the mind is freely wandering in and out of the
organs. The heart is trying to mind its own business just when
the mind starts wrapping itself around it.

          HEART
Hey, do you mind slowing down? Don't
you have a home to go to?

          MIND
Such an odd question, do I mind? I am.
Besides, my home is everywhere.

          HEART
   (confused)
What are you talking about? Aren't you in the brain or
something?

Mind slides into the lungs, disappearing from the heart's view.

          MIND
I visit the brain quite often
when I'm not the kidneys, guts, or
even you.

          HEART
   (shocked)
Me? Of all the places I have looked
for you...

          MIND
Did you ever look for me inside of
you?

Heart has an epiphany.
Heart and mind unite.

(2) FADE IN:

INT. Office - Day

We are inside the protagonist's office. She is talking to her
friends about a decision she needs to make.

          PROTAGONIST
 I don't know what to do! I don't want to be seen as
 emotional but deep inside I can't let it go and just
 act as if nothing happened.

Her friend pads the protagonist's shoulder.

          FRIEND
Just listen to your heart girl, you will know what to
do!

The camera cuts to the inside of the protagonist's body. We see the heart in agony while the mind is freely wandering in and out of the organs.

                    HEART
            (pulls the mind to itself)
        Help! She is listening, what do I say?

                    MIND
            (calmly)
        Wouldn't it be weird if she actually listened to you
        and heard you?

                    HEART
            (whispering)
        I didn't know she could either! What should I do? You
        are the one with the ideas.

                    MIND
        If I am the one with ideas, and I am inside you, don't
        you think you can have ideas inside you too?
                    HEART
            (thoughtful)
        But then the idea is neither yours nor mine alone.

                    MIND
        Exactly, so let her listen to you. She will hear me.

Heart and mind unite.

(3) FADE IN:

INT. HUMAN BODY

We are zoomed in to the heart, seeing it in detail. The camera slowly shifts to the mind. The mind is in a relaxed state, hazing over the organs.

                    HEART
        Tell me something, are you logical?

Mind grabs the heart in a logical sensation.

                    MIND
            (back at the heart)
        Are you logical?

                    HEART
            (thoughtful)

>   I feel like I am, but she (the protagonist) says that
>   I am emotional.
>
>   MIND
>   I am emotional too.

Heart looks puzzled.

>   HEART
>   But I thought you were logical.

Mind starts caressing the heart.

>   MIND
>   Why do you think that logic doesn't contain emotion?
>   Wouldn't it be logical to be emotional in certain
>   situations?
>
>   HEART
>   That would be logical.
>
>   MIND
>   Then maybe emotions are logical.

Heart rests itself in the mind.

(4) FADE IN:

EXT. Park in a city - Day

The protagonist is sitting with someone on a park bench. She is
nervous for some reason, holding the bench firmly, her palms are
sweaty. The camera cuts to the inside of the protagonist's body.
We are looking at the heart.

>   HEART
>   (looking confused)
>   Is anybody ever without me?
>
>   MIND
>   How can a person be without you, if they are a person?
>
>   HEART
>   She just said that he is without a heart, how come?
>
>   MIND

Her feelings aren't reciprocated. The term is
metaphorical.

    HEART
That sounds logical. But I still feel broken.

    MIND
That is also logical.

Mind caresses the heart.

(5) FADE IN:

INT. House of Mind

      PROTAGONIST
   (thinking out loud)
How do I imagine myself? Am I a house?

I, myself, must be a house. A house that comes with
a smart home system. This smart system must be my
mind, which records and regulates everything. It
could theoretically give access to my heart
chamber, open its doors, or block it. The residents
of my home are feelings and thoughts. Sometimes
these residents live in specific rooms, sometimes
they go in and out of every room. When my heart is
broken, the smart system locks the heart room so no
feelings or thoughts can enter or escape. My ideas
wander in this house freely, just like my emotions,
floating in and out of any room I have, being
recorded in the mind.

An idea can leave the heart chamber, walk the halls
of thought to exit my house through my mouth. Or it
may stay in a room forever. The idea might walk the
hallways of reason, or it might not. My idea might
be emotional.
And if I contain my mind and my heart, then what is
contained in them separately, is contained in me
together.