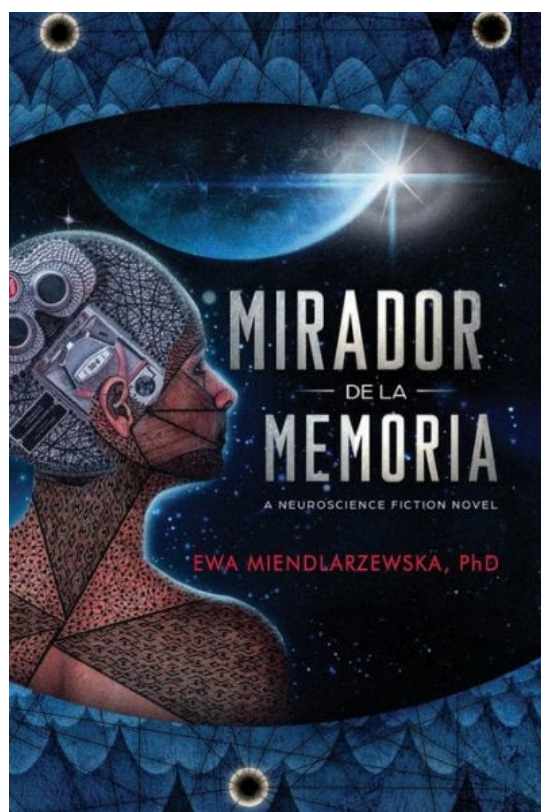


## Ewa Miendlarzewska: Project Unison: Mirador de la Memoria: A NeuroScience Fiction Suspense

Favre Dragana

Figure 1: Book cover



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“Mirador de la Memoria”, a science-fiction novel by Ewa Miendlarzewska, is an ode to cognitive neuroscience. Throughout the story, the main character, Dr Kochanowska, a successful neuroscientist in her sixties, faces her deepest fears – loneliness, amnesia and failure – by questioning her values and her drives. But her love for science stays constant and determined; emotional shock and spiritual reveries don’t threaten the pillar on which she constructs her faith. The reader witnesses a rich assembly of coping mechanisms that this grown woman uses when con-

fronted with fears. Threats come from her surroundings. They come from the exterior world, embodied by a couple of characters: a young psychologist-interviewer and an innovative artificial intelligence device capable of recognising and classifying human emotions. And they come from the inner-exterior, realised as the voices of her colleagues, whose minds are, together with hers, transferred into a connected network. She cannot rely on her own mind, whose recent retrograde memory is disturbed.

By guiding the main character to recall events from her life, Miendlarzewska gives us a real *roman à thèse*. The writer is a full-time academic researcher in the field of neurofinance, and in the interactions of emotions and reward motivation with learning processes. We follow her in her reflections on the practical applications of cognitive neuroscience in the years to come. She introduces us to the possible utilisation of sleep cuing for the consolidation of memory and for problem-solving/decision-making, and to the concept of dream engineering combined with cognitive psychotherapy. In order to confront her loneliness, which the author depicts as the central problem of the 21st century, she proposes an update of dating applications. She suggests a matching algorithm, development of the previously mentioned affective AI-equipped robots (AAI = affective artificial intelligence), and finally, a complex network of interconnected human minds.

As a reader and as a neuroscientist myself, I was pleasantly overwhelmed by the creations of the author’s imagination and her elegant enhancement of today’s neuroscientific facts. In today’s science fiction, it is not always easy to find a plausible neuronarrative. In fact, such narrative is often supported by technical details that are in fact detrimental to the psychological aspect of the characters. Here, the main characters are two sensible women, one at the end of her career and another at the start of hers – both clearly alter-egos of the author. These two women bravely name, rename, and question their emotions. There are three words with high valence that are often mentioned: love, happiness and (un-)loneliness. Here, I allow my psychiatrist and analytical psychotherapist background to take over.

Reading this novel was a dare for me – I am, after all, someone who works in the area of dream interpretation and emotional crises interventions. Miendlarzewska’s approach relies on consciousness, even if it occasionally “betrays” her main characters. She relies on objective reality.

Even when she speaks of Kundalini yoga or reminisces about her erotic and sentimental experiences, her alter ego is all *logos*. *Eros* is praised almost as science but it is not lived equally. At one point in the book, it's not even possible to distinguish between the affective robot and the scientist. They are both over-attentive to all sensorial inputs; they both respond according to the information they are given. The young interviewer follows their model; the others instruct and guide her. Free will suffers from claustrophobia, but has no insight into this ordeal. Consciousness bites its tail, I dare to conclude, enjoying this unforeseen twist.

Humans try to be happy, but their happiness reminds me of dystopian stories. But in this story there are neither scary tyrants nor vicious robot uprisings. Instead, the author uses a much scarier monster – unreliable memory. Whether it is dementia, selective (eu(epi)genics-like) and/or therapeutic memory inhibition, or dream inception and manipulation, a woman/man is bound to confront her/his identity. “Who am I without my emotional scars, some of them originating from early childhood?” is the first question that the psychotherapist in me wonders about. “When?” is another ethical problem. And then, “Who/how am I in togetherness?” How can one progress in her/his individuation process if her/his coping mechanisms, insights and questioning of her/his own shadows and drives is diluted? Mutual assistance, such as the microbiotome mentioned in the book, is “quorum sensing.”

In this late 21st century world, love is sought as a remedy to loneliness. The hidden cause/motive of loneliness, its secondary benefits and its roles as an anxiolytic are all thus neglected. To erase rather than to take responsibility may be beneficial in some debilitating conditions, such as those caused by stressful or painful events. But even if we disregard the bioethics of their definition, there is a risk we might promote symptomatic treatment before facilitating resilience, before adapting to novelty and learning, and integrating new “emotional survival” skills.

“Happiness is a brain state”, meaning it needs to be constantly stimulated in order to stay level. As the affective robot states pragmatically, “it costs.” The central nervous system is not known to be a great bohemian. At the same time, rewards aren't what motivate the robot to learn. It is pain (disappointment) that enhances it, as the author's alter ego suggests. She gives us brainstorming, various evolutionary hypotheses of how silicone and fleshy intelligence will evolve in the near future.

Dreams are tools for rewriting the past and guiding the future. By reducing them to their teleological selves, dreams are cut from their compensatory functions and, as we often see with our patients, from their origins in the hidden corners of patients' minds.

Still, time stays linear, time does not betray. At the end, 14 days are needed for two humans to remember, to connect, to establish a relationship. As we see in the treatment of existential crisis, time and timing are the two key components, together with transference and “good, old” precious human contact.

Manipulating consciousness is not without consequences on the processes occurring beneath, in the so-called unconsciousness. When the usual modes of expression of unconsciousness (dreams, acting-out) are blocked or derailed, and objective reality does not suffice as a protective wall, we risk the accumulation of psychic energy and its translation into not-always fluent coping mechanism languages. Except, of course, if we disregard their existence and return to the hypothesis of free will – the hypothesis which says that we are solely children of consciousness. As Miendlarzewska discusses in her novel, decision-making could be an illusion. For many of my psychiatrist colleagues from other psychotherapeutic schools, unconsciousness is a non-existent concept. Personally, I have no fear of conscious artificial intelligence. What really makes me uneasy is the idea of the collective unconsciousness, as embodied by Miendlarzewska's affective robots. Ewa Miendlarzewska, what about a sequel?