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## Gabriela Mistral's (Im)possible Return to Chile from a Neurosciences Perspective

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This article analyzes the ambiguity of an imaginary homecoming in *Poema de Chile* and *Lagar* by Gabriela Mistral, written while the Chilean poet was living abroad. In these works, her longing for Chile materializes through highly detailed perceptual scenes. Hinged on a neuroscience perspective, the analysis applies a vision of memory as a creative rather than reproductive process, the category of imagery and fmr observation of neural networks in memory and poetry creation. The hypothesis states that the creation of a poem, for Mistral and under certain circumstances, would translate into the activation of a multiperceptual mental imagery that allows her to travel through time and space to relive atmospheres, situations, and natural elements of her longed-for homeland. However, in Mistral's case this imaginary journey is quite ambivalent, since it carries the intuition of its own impossibility and converges in the subject's drive to disintegrate within the sensory elements remembered in the poems.

Keywords: Gabriela Mistral; neurosciences; memory; perceptions; imagery; impotentiality.

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# El (im)posible retorno de Gabriela Mistral a Chile desde una perspectiva neurocientífica

Este artículo analiza la ambigüedad de un retorno imaginario a la patria en *Poema de Chile* y *Lagar* de Gabriela Mistral, escritos mientras la poeta chilena vivía en el extranjero. En estas obras, su añoranza por Chile se materializa en escenas perceptivas muy detalladas. Anclado en la perspectiva de las neurociencias, el análisis aplica una noción de la memoria como un proceso creativo más que reproductivo, la categoría de la *imagery* y la observación con fmri de la activación de las redes neuronales en el recuerdo y la creación poética. La hipótesis afirma que la creación de un poema, para Mistral y en determinadas circunstancias, se traduciría en la activación de una imagen mental multiperceptiva, que le permite viajar a través del tiempo y del espacio para revivir atmósferas, situaciones y elementos naturales de su patria anhelada. Sin embargo, en el caso de Mistral, ese viaje es ambivalente, porque carga con la intuición de su propia impracticabilidad, confluyendo en la pulsión de desintegración del sujeto en los elementos perceptivos rememorados en los poemas.

Palabras clave: Gabriela Mistral; neurociencias; memoria; percepciones; imaginería; impotencialidad.

#### O regresso (im)possível de Gabriela Mistral ao Chile na perspectiva da neurociência

Este artigo analisa a ambiguidade de um retorno imaginário à pátria nos poemas *Poema de Chile e Lagar* de Gabriela Mistral, escritos enquanto a poetisa chilena morava no exterior. Nessas obras, sua saudade pelo Chile se materializa através de cenas perceptivas bem detalhadas. Ancorada numa perspectiva da neurociência, a análise aplica uma noção da memória como um processo criativo e não reprodutivo, a categoria de imagens e observação fmri de redes neurais tanto na memória quanto na criação poética. A hipótese afirma que a criação de um poema, para Mistral e em certas circunstâncias, traduziria-se na ativação de uma imagem mental multi-perceptual, que lhe permite viajar no tempo e no espaço para reviver atmosferas, situações e elementos naturais de sua tão almejada pátria. No entanto, no caso de Mistral, esta viagem é ambivalente, pois carrega a intuição da sua própria impossibilidade, convergindo no impulso do sujeito para se desintegrar nos perceptivos relembrados nos poemas.

Palavras-chave: Gabriela Mistral; neurociência; memória; percepções; imagens; impotencialidade.

When Thomas brought the news that the house I was born in no longer exists,

Neither the lane nor the park sloping to the river, nothing,

I had a dream of return. Multicolored. Joyous. I was able to fly.

And the trees were even higher than in childhood, because they had been growing during all the years since they had been cut down.

Czesław Miłosz, *The Wormwood Star* 

## **Introduction: Remembering Through Poetry**

N AN UNDATED LETTER, PRESUMABLY Written after 1953, Chilean poet Gabriela Mistral¹ writes,

I belonged to that ridge of ridges, my Elqui homeland, better known to me than my verses or the map of my hands, and it overflowed me in feelings of truth and alertness. None of that will return. Now, as I write stanzas for my Recado sobre Chile, I can smell in the cold air, I can capture over the crisp snow, an aroma split through the pines, in which I tenderly and desolately recognize the chamomile my mother used to tie up for her tea.² (quoted in Vargas Saavedra 229)

This fragment encompasses two fundamental aspects of Mistral's later poetics, that reverberate in *Lagar* (1954) and *Poema de Chile* (1967). On the one hand, we find a totalizing, almost obsessive presence of the homeland in the poet's memory, along with a consciousness that returning to that thriving plenitude is impossible. On the other hand, we discern the prospect, for the

Gabriela Mistral was born as Lucila Godoy Alcayaga in 1889 in Vicuña, a small town in northern Chile's Elqui Valley, whose arid and mountainous landscapes, covered in small orchards, left a lasting impression on her existential vision. She worked as a school teacher and director in girls' schools throughout Chile until 1922, when she traveled to Mexico to collaborate with the Revolutionary Government's Educational Reform. Since then, she lived in South America, Europe, and the United States, working as a consul, cultural ambassador, and collaborator in pedagogical projects, as well as writing poetry, essays, and articles. Her volumes of poetry include *Desolación* (1922), *Ternura* (1924), *Tala* (1938), *Lagar* (1954), and the posthumous *Poema de Chile* (1967). In 1945, Mistral became the first Ibero-American woman to receive the Nobel Prize in Literature. She died in 1957 in New York and is recognized today as one of South America's greatest poets and intellectuals.

<sup>2</sup> All the translations in the essay are by Thomas Rothe, including all the quoted prose and poems by Mistral.

poet, of following delicate paths toward a perceptual-emotional homecoming through the mere exercise of writing. In particular, the very act of composing verses of what would eventually become *Poema de Chile* seems to bring to life, for a Mistral installed in a winter setting of the Northern Hemisphere, the smell of Elqui chamomile flowers.

Gabriela Mistral's nomadic life engenders this coexistence of opposing forces, exposed as a constant friction in her creative writing. After leaving for Mexico in 1922, Mistral only returned to Chile three times on short visits, in 1925, 1938, and 1954. She spent half of her life abroad, living and working in various countries in Latin America, Europe, and the United States. This movement illustrates an interior elliptic trajectory that allowed her to maintain distance from the country she both longed for and repudiated. As Jaime Concha has noted, Mistral spent "thirty-four years abroad, in activities that can only euphemistically be called a 'voluntary exile" (37), implying that she anticipated and suffered the practical and emotional consequences of depending on Chile's shifting foreign policies. However, the impossibility of returning to her home country cannot be limited to professional or ideological reasons. To a certain extent and from abroad, Mistral considered Chile's rural landscapes the embodiment of her childhood, with utopian characteristics that could easily shatter upon any attempt to return permanently. In several essays, Mistral admits that her compositions emerge from images, sounds, and smells of that time in her life, but she also explains that she cannot ignore a sense of loss in her writing, which muddles her sensorial journey to the original source. In a revealing stanza from the poem "Elqui Valley" ("Valle del Elqui"), included in the collection *Poema de Chile*, the speaker asks herself:

And, if my childhood suddenly returned, leaped and clung to me, my body would collapse and melt and, like loose sheaf in a field, I would be gathered and bound, for, how can I relive such days with this ash-colored head of hair?<sup>3</sup> (Mistral, *Poema de Chile* 88)

In the original Spanish: "Y, si de pronto mi infancia / vuelve, salta y me da al pecho, / toda me doblo y me fundo / y, como gavilla suelta, / me recobro y me sujeto, / porque ¿cómo la revivo con cabellos cenicientos?"

The sense of a whole childhood, triggered by a sudden perceptual memory, collides with an awareness that the speaker cannot relive, in her present, the pleasant moments of her past. The subject, who appears to succumb when confronted with this intense predicament, displays the difficulty of establishing a straight and steady link between reality and memory, a dilemma at the core of Mistral's later literary works.

In this article, we seek to analyze both ends of this alchemy, arguing that Mistralian writing constructs a bridge for the subject to return to her homeland with the same gesture that reduces its foundation. We believe that this psychological and existential duality, along with its literary reflections, can be suitably addressed from an interdisciplinary perspective, that spans insights from the cognitive sciences and neurosciences as well as considerations from psychoanalysis and philosophy. Our hypothesis is that the creation of a poem would translate, for Mistral, into the activation of a multiperceptual mental imagery (a mental recreation of experiences that resemble the actual ones) that allows her to travel through time and space; thus fully experiencing atmospheres, landscapes, and natural elements of her homeland and childhood. In other words, since the very act of remembering with creative ends —as we will be able to demonstrate thanks to neuroscience studies—enhances a poet's ability to make free associations between perceptions, memories, and yearnings, we suggest that poetic writing is performed to trigger a powerful sensory remembrance in the literary creator.<sup>4</sup> In this way, we are able to look at perceptual memory also as an effect of writing, rather than solely as its source or means. However, in Mistral's case, the memorial journey on the wings of mental imagery is quite ambivalent, since it carries the intuition of its own impossibility and converges in the

Our main claim stems from the idea that the author is the "first reader" and experiencer of her own works, through which she opens her inner world to the community of readers. In this sense, we align ourselves with Fernando Pérez's view of Mistral's poems as a transition from functioning as a crypt or a funeral monument to having an intentionality of message and song (117). That is to say, there exists a shifting triangulation between poet, poetized matter, and reader, in which the presence of the author, with her history and obsessions, experiences points of saturation, as it is the case with some of Mistral's melancholic fixations we are exploring in this essay. Far from willing to reduce poetry writing to a solipsistic and private undertaking, still, in this opportunity our aim is to concentrate on the relevance of the creative process and its product (the poem) first and foremost for the author, leaving the exploration of the relevance to the implicit or actual readers to a work based on reception theory-oriented studies.

subject's drive to disintegrate within the sensory elements of the poems. In the first part of the paper, we will focus on this ambiguity, emphasizing memory's role in creating different versions of perceptual and emotional remembrances and exploring the subject's drive to transcend the limits of her individuality in reminiscence. In the second part, we will address the neurocognitive process of reliving sensations in literary creation to consider Mistral's poems as the cause and means of a simulated —and ambiguous, if not self-destructive— return to the past.

## An Im(possible) Return: The Role of Memory

As mentioned above, both Poema de Chile and Lagar are characterized by a deep-rooted antinomy. The desire to return to Chile —especially the Elqui landscape of Mistral's childhood and, to a lesser extent, other regions of the country where the poet lived as a young adult— coexists with the suspicion or consciousness that fulfilling this wish would be impossible and even damaging for her. Indeed, although the poems evoke pleasures of lively sensations and deep connections to the land, the speaker reveals quandaries of feeling emotionally unable to live in Chile, a sense of guilt for having abandoned her country, and a fear of not being recognized by the places that witnessed her birth and where she yearns to leave her mortal remains. Thus, the wandering of a mother, a child, and a deer through Chile in Poema de Chile, or the brief epiphanies of Chilean landscapes condensed in a piece of fruit in Lagar, constitute Mistral's personal attempts to make amends with her homeland, though always risking failure as in an unstable relationship that harbors shadows of dissolution. As we know, the other side of vital appetite is the cupio dissolvi: here, we can see an energetic ambivalence that is also genetic, since it reflects the existential and psychological entanglement at the core of Mistral's literary creation. This contradiction is diagnosed by Grínor Rojo in the following terms:

Gabriela Mistral never returned to Chile because she could not return, because spiritually that was a decision she did not feel capable of making. In the intersection between the grief of exile and the impossibility of ending it—because something from within resisted that desire to once again breathe the air of her homeland—we find the deepest root of her constant dilemma. (317)

Adding to this perspective, we suggest that the composition of poems linked to Chile becomes a way for Mistral to both foster and dissipate the tension accumulated in the "dilemma" nurtured by the distance from her homeland.

To comprehend this paradoxical situation, let us consider the concept of potentiality that Giorgio Agamben takes from Aristotle. For the Italian scholar, potentiality is the mode of existence of a privation, the presence of an absence. This relation between the subject and the potential act retained in its impotentiality constitutes "perhaps the hardest and bitterest experience possible" (*Potentialities* 99). Connecting Agamben's reflections to the work of Mistral, one may venture that she manages to "live" in an imaginary Chile as long as she has the potentiality of *not* returning. This paradox obeys an indisputable logic found in the arc of desire: the subject can only inhabit a fantasy until the latter becomes an accessible reality. When this happens, the anxiety of a dream falling to pieces may paralyze the subject and desire can turn into fear.

Agamben concludes that "beings that exist in the mode of potentiality are capable of their own impotentiality; and only in this way do they become potential. They can be and do because they are in relation to their own nonBeing and nonDoing" (*Potentialities* 102). This notion of potentiality's constant and crucial coexistence with its own negation leads us to sustain that Mistral's writing reveals the defects and uncertainty of any attempt at return. For the poetic persona, the possibility of living or imagining herself in a virtual place recreated in *Poema de Chile* and in various poems in *Lagar* is jeopardized by a permanent concern of losing her recovered soil, as well as her incapability or even unwillingness to remain "there". Therefore, the (im)potentiality of a real return is what enables the imagined return, but inseminates the latter with the spectre of its own fragility.

Throughout *Poema de Chile*, one can perceive that the speaker is aware that her connection to her lost homeland could be, in fact, quite labile. The speaker reiterates the expression "I had them and I have them"<sup>5</sup> in reference, for example, to deserts, the town of Montegrande, mountains, medicinal herbs, and landscapes of southern Chile. A declaration that, due to its significance and constant recurrence in the poems, could actually signal the

<sup>5</sup> In the original Spanish: "me lo/as tuve y me lo/as tengo".

contrary: an insecurity of possession. The "jolt of abrupt emotion" (Mistral, *Pensando a Chile* 30) that overcomes Mistral when remembering her home valley is stalked from behind by a thick fog that blurs its borders and dulls its colors. In *Poema de Chile*, the speaker evokes the doubt of being a lost and forgotten daughter. The poem "Mountains of mine" ("Montañas mías") begins with two emblematic stanzas:

In the mountains I was raised among three dozen peaks.

I never, never seemed, even when they heard me flee, to have lost them, not by day not by the star-filled night, and even when fountains reflect my snow-colored hair

I did not leave them and they left me like a forgotten daughter.

And even when they pester over my distance and ill-temper,
I had them and I have them nonetheless, nonetheless, and their gaze follows me and they somewhat swayed and they somewhat sheltered me.<sup>7</sup> (Mistral, *Poema de Chile* 62)

This version of the poem, unpublished until 2010, is interesting because it differs from the original of 1967 in one decisive aspect: while the poem selected by Mistral's trustee, Doris Dana, reads "I never left them nor they

<sup>6</sup> In the original Spanish: "mazazo de la emoción brusca".

<sup>7</sup> In the original Spanish: "En montañas me crié / con tres docenas alzadas. / Parece que nunca, nunca, / aunque me escuche la marcha, / las perdí, ni cuando es día / ni cuando es noche estrellada, / y aunque me vea en las fuentes / la cabellera nevada, / no las dejé y me dejaron / como a hija trascordada. // Y aunque me digan el mote / de ausente y renegada, / me las tuve y me las tengo / todavía, todavía, / y me sigue su mirada / y ellas como que mecían / y como que me guardaban".

left me / like a forgotten daughter"8 (Mistral, Poema de Chile Pomaire Edition 37), rendering the landscape as persistently loyal to the nomadic daughter, the version included in *Poema de Chile* edited by Diego Del Pozo destabilizes this consistency with the contrary: "I did not leave them and they left me / like a forgotten daughter".9 Magda Sepúlveda, who analyzes Doris Dana's version, proposes an interesting etymological thesis that associates the "trascordada" (forgotten woman) to the "demonym that the poet invents so as to indicate her origin in the transversal valleys [and] connect it to the mountainous ring in an unbreakable link with her birthplace" (151-152). This rationale is based on a vision of the subject's total adherence to the beings that inhabit her past and inform her identity, consistent with the version of the poem in question. However, we would like to contribute another possible interpretation of the adjective "trascordada". In its most literal definition, this word means "forgetful" (desmemoriada) and even, in its passive sense, "forgotten/confused with another" (olvidada/confundida con otra),10 that manifests the shadow of guilt that follows Mistral for having left her native valley, therefore exposing herself to be forgotten by the mountains, that "leave" or abandon her, just as she supposedly abandoned them. From this perspective, the poem's compulsive repetition of the temporal adverbs "never" and "nonetheless" resemble a plea or incantation which the speaker summons against the possible evidence of the contrary ("seemed") or the gossiping ("And even when they pester / over my distance and ill-temper").

We can think of the different versions of this poem as expressions of the progressive adjustments that memory exercises regarding the author's existential and psychological context. This hypothesis is sustained by the changing conception of memory in recent decades: the idea of memory as a sort of static depot that stores intact recollections has turned into a conception of an organic and

<sup>8</sup> In the original Spanish: "[nunca] las dejé ni me dejaron / como a hija trascordada".

In the original Spanish: "no las dejé y me dejaron / como a hija trascordada". Given that the number of syllables in this verse does not vary from one version to the other, the change may respond to a grammatical correction or, as we suggest, a transformation in Mistral's perception of the relationship with her past.

According to the dictionary of the Royal Spanish Academy, "trascordarse" means "to lose memory" (perder la memoria) and, in reference to a thing, "to be forgotten or confused with something else" (ser olvidada o confundida con otra). Etymologically, the word derives from Latin and is formed by the prefix "trans" (across, beyond, through) and "cor, cordis" (heart). The root of "corazón" (heart) informs the radical implications this situation provokes for the subject of the poem.

permanently changing memory, now associated with a delocalized neurobiological substrate that participates in cognitive mechanisms characterized by permanent reprocessing (Manzanero & Álvarez 52). As Antonio Duarte specifies, memory is a flexible process that does not reproduce remembrances, but rather recreates them according to an abductive principle. This consists of adopting a provisional supposition that interprets a probable state of things, as the transformed physical and emotional context of the moment in which one remembers something. Therefore, the universe of memories would harmonize with the motive for which the subject accessed the long-term episodic memory. Duarte argues that,

the past is not mechanically reproduced, rather we identify ourselves in it, primarily due to the reworking of our imaginations. Reminiscing, remembering episodes from life, is an issue of performing constructive mental journeys through time [...] strictly speaking, remembering is no different from imagining. (6)

Therefore, we can argue that each memory journey, that, in the case of Mistral, coincides with a poem or a different version of the same poem, possesses its own trigger most likely related to the lived, emotional, and physical circumstances of the moment when she wrote the poem. This implies a dynamic of restructuring and reinterpreting some elements of a specific memory and its emotional tones.

The variability of perspectives ends up permeating numerous poems, giving voice to Mistral's impasse as an individual and as an artist facing the passage of time and disconnection from her country. In the poem "When I Visit the Elqui Valley" ("Cuando voy al Valle del Elqui"), the speaker imagines returning to her home village only to find that her friends no longer recognize her. In a playfully mischievous gesture, she turns into a grape for the girls to harvest:

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and they crush me not understanding,
and take me to the winery
without knowing this is my body
and into their houses I enter." (Mistral, Poema de Chile 77)
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<sup>11</sup> In the original Spanish: "y me exprimen no entendiendo, / y al lagar me van llevando / sin saber que así me entrego / y a sus casas voy entrando".

She even slips into their dreams, but the friends insist she is absent: "they still hum / the proverb that I won't return". The speaker asks herself:

What keeps me going back and visiting the shacks when over and over their chants ring through heat spells and cold drafts the line that I never unpack?<sup>13</sup> (78)

In popular Chilean speech, the following phrase is commonly used to describe a person who has traveled abroad and failed to communicate with their family and friends: "No me llamaste, ingrato/a" (Ungrateful, you never called). In this particular cultural contest, absence produces a debt that cannot be repaid: although often said with affection, the phrase scolds the person who did not keep in touch. Likewise, in the poem "Elqui Valley", natural elements taunt the speaker for her supposed betrayal. The subject declares that she is leaving the valley, "erasing her face" (89), to avoid the reproachful stare of the hills, "gray with resentment" 5 against her, and to follow mountain trails where

hawthorns and carob trees abduct me with their cries, sharpening each spine or stabbing branches into my body<sup>16</sup> (89)

Here, we can outline both the poet's sense of guilt, that renders the plants aggressive and the mountains resentful, and the ambivalence of her memory, that implies her punishment for having "forgotten" the land where she was born.

<sup>12</sup> In the original Spanish: "siguen canturreando / el refrán de que no llego".

<sup>13</sup> In the original Spanish: "¿A qué sigo yo viniendo / y por la peñas arribando, / si me sigo y sigo oyendo / en verano y en invierno / el cantar de que no vengo?".

<sup>14</sup> In the original Spanish: "hurtando el rostro".

<sup>15</sup> In the original Spanish: "grises de resentimiento".

<sup>16</sup> In the original Spanish: "espinos y algarrobos / me atajan con llamamientos, / aguzando las espinas / o atravesándome el leño".

In this dynamic relationship between belonging and exile, the speaker's metamorphosis into a grape in the poem "When I Visit the Elqui Valley" gains special relevance, as it helps us to understand a second way of representing the ambivalence of memory processes in Mistral's poetry. In our view, the metamorphosis corresponds to a subject's drive to transcend the limits of her individuality in remembrance and take on the form of objects and atmospheres that she holds dear. This movement allows Mistral to bond with the sources of her longing, welding with them like hot metals that combine to form a different compound. Both in *Poema de Chile* and *Lagar* this gesture is associated with disintegration, understood as dispossession, self-destruction, surrender to death. The poems dedicated to Elqui Valley not only display a longing for Mistral's birthplace to coincide with her grave, but also an active force to dilute and lose the speaker within the perfumed mist of orchards, flocks of birds or patches of southern fog: "Have no fear if the fog comes. / I may come with it, I may come in it" 17 (343). The scholar Fidel Sepúlveda outlines a broader ecological vision in Mistral's poetry, arguing that there is "a system of correspondence and capillarity which links every existing thing in proximity and distance. [...] This inundated reality, diverging from its course, constitutes an infinite ontological niche" (61), where the subject mirrors and submerges herself even when the dominant drive is negative and self-destructive. On the other hand, Vilma Muñoz identifies that, in Poema de Chile, there is "an exterior manifesting itself in each poem, an impersonalized force that covers everything like a torrent" (59). In light of these two comments, we find it productive to follow Giorgio Agamben's analysis of the figure of the Genius to reveal the speaker's bond to a submerged potency that entices her toward drowning to death, but which also allows her to fully offer herself to the natural elements and landscapes she loved. For Agamben, Genius both exceeds and withdraws from the principle of individualization that defines our identity: it is an impersonal and pre-individual element of life that nurtures our existence without completely belonging to us. The Italian philosopher explains the concept in the following terms:

Genius is what we sense in the intimacy of our physiological life, a place where we find both the most personal and the most impersonal or unusual, the most familiar and the most foreign or unmanageable. [...] To live with Genius

<sup>17</sup> In the original Spanish: "No tengan miedo si viene la niebla. / Tal vez vengo con ella, en ella".

implies, in this sense, to live in the intimacy of a foreign being, to constantly uphold a relationship with an area of the unknown. (*Profanaciones* 11)

When the speaker in Mistral's poems imagines and senses her own disintegration into remembered things, she allows herself to be invaded by this wild, impersonal, and undetermined part of herself, that is channeled by Genius and ends in the infinite sum of elements.

The poem "The Distribution" (El reparto), included in *Lagar*, stages the process in which the speaker's dispossession literally rips her apart and delivers to a universe mediated by Genius. The speaker offers her eyes, knees, arms, and all her senses to other women who may need them. According to the verses, she does not need these organs in her "homeland", her mythical childhood where her entire body shall become an "wide pupil without lashes" (Mistral, *Lagar* 20); in other words, an organ with all its senses, opened to the extreme, submitted to the pleasure and joy of recognizing each object. While the speaker does not conceal the bare craving of her perceptions, bluntly characterized as "thirst" and "hunger", she is willing to disassemble them, in both the (apparently) bloodless massacre of her own body described in the first part of the poem and the relief of subjectifying cohesion through the dispersal of her limbs in its last part. The poem describes the entire process as follows:

May I finish this way, consumed distributed like loaves of bread and delivered south or north never again will I be whole.

My body's relief will be like the removal of branches that pull me down and break from my core, like a tree.

Ah, breath, oh sweet payment, turning into vertical descent!<sup>19</sup> (Mistral, *Lagar* 21)

<sup>18</sup> In the original Spanish: "ancha pupila sin párpados".

<sup>19</sup> In the original Spanish: "Acabe así, consumada / repartida como hogaza / y lanzada a sur o a norte / no seré nunca más una. // Será mi aligeramiento / como un apear de ramas /

Her body is scattered far and wide like a wafer or a primordial human sacrifice, while the tension of opposites finds an outlet —though no sort of conciliation— in the deprival and disappearance of one's own self, in the stillness of a non-form located on this side of life.

## Neurons, Orchards, and Grapes

We will now turn to consider the powerful ambivalence of Mistral's homecoming through poetry writing from the point of view of neurosciences. Giacomo Rizzolati's well-known research on "mirror neurons" in the early 1990s has become one of the most notorious and controversial aspects of paradigm shift for some approaches in the humanities, in particular theories of the body that engage with second-generation cognitive sciences and the phenomenology of embodiment. Over the last decade, mirror neuron theory has been subject to nuanced delimitations by introducing new research and different methods of neuro-imaging, that contribute to a necessary more complex understanding of what happens in the human brain when we observe actions. However, this theory is revolutionary for literary studies, as it demonstrated that even imagining a gesture or motor operations through reading implies a simulated re-enactment of the same action in the reader's brain (Kosslyn & Thompson 976). As studies have shown, this is due to the fact that linguistic comprehension involves a sensorimotor dimension, since the systems of language and movement are somatotopically connected in the brain (Boezio 6). On the other hand, neurocognitive poetics have investigated

que me abajan y descargan / de mí misma, como de árbol. // ¡Ah, respiro, ay dulce pago, vertical descendimiento!".

<sup>20</sup> Based on experiments of micro-electrodes applied to the cerebral cortex of macaques, later expanded to less-invasive procedures on humans, it was established that, when observing another being execute an intentional motor action, the monitored subject activates the same neural networks that would be activated upon actually performing the action. However, the scientific and media attention surrounding the discovery of mirror neurons should not eclipse the existence of another class of neurons, that also integrate the cognitive process of aesthetic perception, involving essentially bodily movements and sensations: these neurons are activated when observing an object that can participate in a potential action. The philosophy of art theorist Chiara Cappelletto defines them as "Cézanne neurons" since they "visually respond to the roundness of his apples: the rounder they appear, the more we want to grab and bite into them while looking at the painting" (128). This means that artistic representation, but also literary representation (especially considering the work of Marcel Proust, for example), prompts the spectator or reader to imagine entering into physical and sensorial contact with the represented objects.

the imbrication between fiction and poetry in emotional states, establishing that the processes of aesthetic reception use primitive neural circuits related to basic instinctive reactions like fear-anger-desire-play, requiring, as a consequence, deep levels of the psyche, even from the evolutionary point of view (Jacobs 1). The implicit conclusion of all these studies is that "on a cognitive level, the limit between real and fictional dimensions is more labile than commonly thought" (Boezio 8).

Given the relevance of this approach to the topic we are addressing, we will now engage with neuroaesthetics and second-generation cognitive sciences to posit a link between our hypothesis — *i. e.* the idea that poetic imagination and composition can be considered a vehicle for the author to once again feel her longed-for country, so that her poems turn into perceptual and emotional journeys— and the notion of imagery, a concept that emerged in cognitive sciences in the 1980s, which has seen a recent surge in the progress of neuroimaging. Likewise, we will draw upon several basic concepts from neurosciences and the results of case studies to comprehend the cognitive process of writing poetry and read Mistral's poems from this perspective.

If we take the definition offered by scholar Ronald Finke, mental imagery is understood as "the mental invention or recreation of an experience that in at least some respects resembles the experience of actually perceiving an object or an event, either in conjunction with, or in the absence of, direct sensory stimulation" (2). Imagery is characterized for being multisensorial and comprises notions of the location of objects in space as well as their movements related to the subject's point of view. For the purpose of this article, it is also important to highlight that imagery involves a process in which "images are generated from underlying memory representations" (Conway 337), meaning that imagery reformulates representations of memory, basing them on the codification of predominantly concrete, perceptual, and unintentionally learned experiences. This implies that imagery's code, in comparison with verbal and conceptual codes, is more unstable and malleable, and risks diverting from the original referent, since memories are reformulated with a certain margin of invention. The arrival of new research methods, as neuroimaging through Functional Magnetic Resonance Imaging (fmri) and Multivariate Pattern Classifiers (MVPC), led to visualizing what areas of the brain are activated under specific stimuli or in association with specific cognitive operations, and to studying

the behavior of implicated neural networks. Particularly, neuroimaging techniques applied to studies of imagery enabled the observation that "the neural basis of visual mental imagery is tied to the endogenous activation of cortical areas subserving visual perception", reaching the consensus that "the retrieval of visual representations from memory leads to the reactivation of cortical areas that were initially activated during the perceptual encoding of those representations" (Handy et al. 8). The same was observed for other perceptual modalities, such as kinetics, that codifies spatial positions, the movements of remembered elements and the subject's relationship to them (Olivetti et al. 123). Therefore, this research established that imagery and perception both share neural mechanisms and representational formats. In short, imagery is a multisensorial, internal representation that functions as a weak form of perception and, when it occurs, activates the same neural networks and functions (progressively, depending on the internal hierarchy of these functions)21 involved in direct perception, while simultaneously interacting with memory and recombining memories (Pearson et al. 592).

We would like to complement this approach with a study that has explored brain functions during poetic creation, applying magnetic resonance imaging (fmri) to famous poets during their creative process, in parallel with control groups and tasks. This study, led by Siyuan Liu in 2015, focused on the phases of producing and revising poems. Liu sought to demonstrate that the productive phase of the creative process could be related to a rise of intrinsic and spontaneous motivation, observable in the neural activity in the mediumprefrontal cortex (associated with intentionality, unconscious decision, and integration of information, among other activities), and to the mitigation of top-down attention -self-conscious and "quality control" of the creation's product— at the level of the dorsolateral prefrontal cortex (associated with planning and manipulation of information of the memory of work, among other activities of higher order cognitive control) (Liu et al. 3364-3366). The results of this study confirmed "[the] longstanding notion that spontaneous creative behavior takes place in a state of cognitive disinhibition or defocused attention that permits lateral thinking and the formation of remote associations"

<sup>&</sup>quot;Because high-level areas are physically (and synaptically) closer to memory-encoding structures in the medial temporal lobe than are earlier visual areas, it makes sense that the activity patterns associated with perceived and imagined images should more closely resemble one another in high-level than in early visual areas." (Pearson et al. 595).

(3364), although the researchers admit that, in real life, the two phases studied alternate much more flexibly and spontaneously. Additionally, these experiments detected that the brain's auditory, somatosensory, and motor regions attenuated their connection with the dorsolateral prefrontal cortex and connected more intensely with regions associated with the limbic system, normally related to emotional processes. For the researchers, this could contribute to the spontaneous production of much more vivid sensorial-motor images and innovative play with the sonorous dimension of the creative phase. This view of the workings of the brain during the creation of poetry would certainly be quite familiar to Mistral, since she herself describes her writing technique as involving two successive stages: "[my technique] consists of this: to take advantage of the heat of the so-called "inspiration" and write fast; but then, once cold, to put at least two subtle or refined or novel verses [...] I always correct a lot." (*Doris, vida múa* 309-310).

From a literary perspective and reversing the viewpoint with which the results of this study have been interpreted, we argue that, in the case at hand and, possibly, in similar circumstances, poetry can be written to enter an uninhibited and simultaneously intensified cerebral state, in which the author can indulge in memories, emotions, and sensations, since the subject's conscious control of self and production experiments a temporary inhibition. This phenomenon coincides with imagery, considering that one of imagery's most relevant functions, especially in autobiographical works, is to "facilitate memory retrieval" (Conway 342). This implies that multisensorial representations produced in the process of imagery do not necessarily adhere to past events, but rather, in coherence with the reconstructive (as opposed to reproductive) vision of memory, blend with features of other psychic and emotional instances. In short, we want to suggest that the creation of a poem, under the circumstances and for the corpus that we took into consideration, would translate into the activation of a multiperceptual imagery that allows Mistral to travel through time and space to reconstruct and relive atmospheres, situations, or natural elements of her longed-for homeland during several intense moments.

How can we identify neural dynamics of perceptual-emotional creation and remembering in our corpus? In general, many of the poems in both books tend to evoke memories rich in sensorial detail and emotional value for the author. For example, in "Fruits" ("Frutas"), included in *Poema de Chile*, the first four stanzas of this five-stanza poem read as follows:

The Central Valley, like must, is burning with apple trees, peaches and the arms of harvesters blending with smells, colors and ferments.

The fruit canopies call through blood-red greens and the orchards and vineyards confess in pungent odors and flat strawberry patches amongst the chaos release a tender transcendence from its subtle density.

Everything moves in a mist that slows the pace of our steps to see and breathe in the hidden or confessed and discern the jumbled faces and backs of the farm hands.

The trunks appear alive from the boys and girls who relinquish and climb zigzagging like lizards.

And the baskets come and go with the weight and arc of our mothers' womb and the apricot skin fresh pears and pineapples are wondrous things. 22 (Mistral, Poema de Chile 188-189)

Through a fragmented perception of fruit trees, bodies, the movement of farmhands and harvesting tools, the poem produces synesthetic condensations that expand complimentary sensations and colors: for example, the verse "The fruit canopies / call through blood-red greens" produces a sharp contrast between the green of the leaves and the blood-red of the apples. The perception literally advances through "pushing" ("golpes"), but simultaneously creates a suffocating mist of pungent smells. We can read this poem as an imagery that activates neural networks associated with the senses, especially those of sight, smell, and kinesthesia, that allows the poet —and her reader with him— to step into the lively moment of the remembered/imaginary harvest. In regards to kinesthesia, the sense of movement is not limited to the speaker's actions, rather it extends to the observed objects and actions: the expression "lagarteos" describes the movements of the boys and girls busy in the harvest, but also alludes to the rapid and zigzagging movements of the lizards that live in the sunny agricultural areas of Chile's Central Valley. The same can be said of the verse "And the baskets come and go / with the weight and arc / of our mothers' womb": the baskets moving from the fields to the warehouse enable us to perceive "the weight and arc" of the bodies growing accustomed to the loads they carry. According to our discussion, imagery, even when it is predominantly visual, has a kinesthetic and bodily scope that implies an "internal rehearsal of motor acts without overt movement" (Olivetti et al. 123) and, in this case, the subject's brain —and that of the reader as well—rehearses the motor action in a mediated form. The poem ends almost unexpectedly with a stanza in which the speaker leaves the burning fruit trees and enters the wild where "wild herbs" grow (Mistral, Poema de Chile 189). Aside from the speaker's disdain for the Chilean state system and the social ambition it harnesses, this ending marks not only an

<sup>22</sup> In the original Spanish: "El Valle Central está, / como los mostos, ardiendo / de pomar, de duraznales / y brazos de cosecheros / a trabazones de olores, / coloración y fermentos. / Los tendales de la fruta / llaman con verdes sangrientos / y a golpes de olor confiesan / los pomares y el viñedo, / y frutillares postrados / sueltan por el entrevero / un trascender que enternece / por lo sutil y lo denso. // Todo se mueve en un vaho / que nos pone el andar lento / por ver y por aspirar / en lo emboscado o confeso / y atisbar rostros y espaldas / volteados de cosecheros. // Los troncos parecen vivos / de mozuelos y mozuelas / que trepan y que despojan / a saltos y lagarteos. // Y los cestos van y vienen / con el peso y el arqueo / del vientre de nuestras madres / y son maravillamientos / la piel del albaricoque, / La pera, la piña al viento".

ideological distance, but also delves into the ever latent "non-belonging" that prevents the speaker from extracting joy out of the poem she created. It is as though the speaker suddenly woke up from a vivid dream —the imagery— to resume her path of exile.

Moving to *Lagar*, the poem titled "Little Box of Raisins" ("Cajita de pasas") reproduces both the triggering of memory in conjunction with a direct sensory stimulation and the subsequent imagery. The speaker receives a box of grapes from her home country:

I open it with caution and fear of sounding alarm; I fold the sweet mint lining that blinds and embalms them and with a scream I lift thirty strangled raisins...

Strands of bees and cicadas emerge from this vector with the stinging of ten suns and dried, but bathed in nectars. Ana and Rosa harvest my grapes their backs bent under the sun.

Crawling over vine shoots where I once cut, they cut, and brush my child fingers that wander among the bush...

Those who arrive touch it all and are left without the grace: they see no slopes or vineyards; the Valley falls not on their face.

They celebrate the grapes, I celebrate sunspots, live grape clusters in my body my blood already docked...<sup>23</sup> (Mistral, Lagar 36-37)

This object arriving from afar not only triggers the poet's perceptual memories, but also an imagery that takes her back from the present to her childhood in Elqui. As soon as she removes a grape from the box, the speaker is overcome by a wave of heat and sunlight, the deafening buzz of cicadas and sweet tastes that fill her palate. In this late summer setting, the poem also shows episodes that seem like memories from the speaker's childhood: during harvest, a girl who may have been Mistral cuts her fingers on a pair of shears. The imagery, specifically rooted in what is presented as a personal and detailed memory, also reconstructs the position of the girl's body in the vineyard on a cognitive level. This confirms the relevance of proprioceptive or kinesthetic memory over purely visual memory, within a general framework of an embodied cognition approach that looks to tackle the issues at hand.

However, the last stanza manifests the complex psychological dynamic unleashed by the imagery, thus verifying that, when read as a memorable journey and in light of the poetic narrative, the poem also functions as a powerful detonator on a psychological level. The speaker establishes a clear line between how visitors to the valley perceive the area and the images that the Valley only reveals to her. While these outside spectators or "tourists" gather superficial impressions, the speaker relives a total bodily experience: the sun reverberates throughout her skin, she celebrates her transubstantiation into a cluster of grapes, and her bloodstream knows she has arrived home. In other words, the imagery results in a more vivid and powerful experience than that provided by a real journey to the alluded places. The clear paradox displayed in these verses outlines that the more the experience is rooted in and limited to the imagination, the more intense it becomes, as if the speaker considered a real journey dispensable. Likewise, we cannot ignore the arrogance in the speaker's final protest: she not only invalidates the experiences of visitors but also the valley's current existence.

<sup>23</sup> In the original Spanish: "Me la destapo con tientos, / y con miedo de azorarla; / volteo el forro de mentas / que las ciega y embalsama / y con un grito levanto / a las treinta sofocadas...// Van saliendo los sartales / de abejas y de cigarras / con sollamo de diez soles / y enjutas, pero enmieladas. / Cepa mía vendimiaron / Ana y Rosa al sol dobladas. / En sarmientos lagarteando, / donde yo corté, cortaban, / y toparon con mis dedos / de niña entre la maraña...//Los que llegan palpan todo / y se quedan sin la gracia: / ladera y viña no ven; / no cae el Valle a sus caras. / Ellos festejan racimos, / yo festejo resolanas, / gajos vivos de mi cuerpo / y la sangre mía arribada...".

We wonder if the speaker's confidence in detaching herself and the "real" valley (which only she can reveal) from the "tourists" conceals some deeper meaning.

In an attempt to explain this situation, we can associate this type of imagery with what Sigmund Freud called "fantasy" in his paper "Creative Writers and Day-Dreaming," presented in 1907:

A strong experience in the present awakens in the creative writer a memory of an earlier experience (usually belonging to his childhood) from which there now proceeds a wish which finds its fulfillment in the creative work. The work itself exhibits elements of the recent provoking occasion as well as of the old memory. (426-427)

In the fantasy condensed within Mistral's poetic creation —the fantasy which poetic creation allows her to experience from activating specific neural networks, according to our hypothesis— we find coexisting remnants of the past and details of the present, in an assortment that produces a new emotional-perceptual state uniting both the desire and energy of frustration (for Freud, the motive of a substitute satisfaction is always current dissatisfaction). Freud's position is corroborated by neuroscientific observations of the imagery, that, for each poem, recreates a new version of the past in conjunction with a variable present, generating a mutated representation of said memory. As Martin Conway poses,

it may be that images usually correspond both to an experience and to the representation of the event of which that experience was a part. In this way then people may experience difficulties in deciding on the basis of a retrieved image whether the scene depicted by the image did in fact occur. (342)

In this sense, Czesław Miłosz's epigraph to this article is particularly illuminating: the poet writes that, in a dream of returning to his childhood home, "the trees were even higher than in childhood, because they had been growing during all the years since they had been cut down" (385). While the trees remembered in the poem no longer exist in real life, they are not the same trees from the poet's childhood because in his creative and affective memory they have continued to grow on their own. The poetic image of the trees growing autonomously in the soil of remembrance not only parallels

the theory of memory's malleable and abductive nature posed by Duarte, but also aligns with the intuition that both the heritage of memory-based perceptions collected in the imagery and the very subject who experiences them evolve in different ways. With the passage of time, experiences that transform individuals inevitably separate them from their origins, while fantasies surrounding their homeland prosper in an apparently independent manner. In this sense, the external space incorporated into the subject's body ("live grape clusters in my body / my blood already docked...") can be considered a process of subjectification and individualization of real and physical factors. In brief, along with the ecstasy of regaining sensations and the apparently immediate encounter with the plenitude of childhood, the subject perceives an irreparable, potentially overwhelming *mise en abyme* in the recollected world, and even in her multiple selves present throughout time.

The poem's final scene, therefore, is overcome by the shadow of both ominous elements and a sense of possibility within impossibility: the experience can only be lived through a non-being, which is to say in fiction as opposed to reality. The imagery transports recovery and loss, that coexist and intertwine, implying a revitalizing yet lethal potential for the subject, similar to a cluster of uncontrolled cancer cells. Uniting the end of the poem with the compensatory fantasy described by Freud and its characteristic oscillation between the present impression, the past of childhood where desire is satisfied, and the projected future where that desire can once again be satisfied, <sup>24</sup> we can affirm that Mistral's future is indissolubly welded to her childhood, constantly reimagined and regenerated. In other words, her future is welded to a temporal impossibility. This paradoxical loop appears in the speaker's conscience in several poems from *Lagar*, as "She Who Walks" ("La que camina"), from the section "Mad Women" ("Locas mujeres"), where the subject is represented while

<sup>24 &</sup>quot;The relation of a phantasy to time is in general very important. We may say that it hovers, as it were, between three times —the three moments of time which our ideation involves. Mental work is linked to some current impression, some provoking occasion in the present which has been able to arouse one of the subject's major wishes. From there it harks back to a memory of an earlier experience (usually an infantile one) in which this wish was fulfilled; and it now creates a situation relating to the future which represents a fulfillment of the wish. What it thus creates is a day-dream or phantasy, which carries about it traces of its origin from the occasion which provoked it and from the memory. Thus past, present and future are strung together, as it were, on the thread of the wish that runs through them" (Freud 424).

she has been left alone like a tree or like an unknown person's stream thus marching between start and finish as without age or as in a dream. <sup>25</sup> (Mistral, *Lagar* 90)

The character, detached from time, roams in a sequential reversal (for the end precedes the beginning), which functions as a threshold or intermediate zone (like a dream or a point where time is abolished). In some ways, this exhibits the strange contact —beyond time—between the subject's individuality and her *genius*, as already discussed above. In this case, the *genius* represents the part of us that,

is not a chronological past which we have left behind once and for all and which we can, eventually, evoke through memory; it is present at every moment, in us and with us, in the good and in the bad, inseparable. The childish face of Genius, his long, shivering wings mean he ignores time and we felt him trembling close by as when we were children, breathing and flapping his feverish temples, like an immemorial present. (Agamben, *Profanaciones* 10)

By activating neural networks in the imagery triggered by the poem's flight of remembrance, Mistral reconnects with her land and her past in a rarefied, paradoxical, and prolific temporal circle, located on the most intimate limit in terms of impersonal potency. This proximity can end in the subject disintegrating into objects, as we discussed in the previous section, or in a process of dispossession anticipating her surrender to death. We will proceed to review this latter alternative in connection with neuroscientific perspectives.

Several poems in *Lagar* testify to the unsettling foresight of extinction, although, if interpreted from an abnormal temporality, the subject's gesture of drawing her future deposition from past particles actually makes sense. "The Dancer" ("La bailarina"), a moving, painful poem, speaks of something or someone who tirelessly swirls within the subject until it eventually thrusts away, in a centrifugal movement, her name, lineage, and childhood memories:

#### parents and siblings, orchards and farms

<sup>25</sup> In the original Spanish: "se va quedando sola como un árbol / o como un arroyo de nadie sabido / así marchando entre un fin y un comienzo / y como sin edad o como en sueño".

the rumor of her river, the roads, the story of her home, her own face and her name, and childhood games<sup>26</sup> (Mistral, *Lagar* 66)

The dancer swirls until she reaches the most "beautiful and pure" 27 state of nudity (66). Another feminine character chosen for her marginalization and vulnerability is the "emigrada judía" (Jewish immigrant) who has escaped erasing her visit "like a footprint in the sand" 28 (171). As the subject is eventually stripped nude before the sea, pieces of intensely perceptive and emotional biographical memory hang from her limbs: "the mints / whose smell bring me to tears"; "a wave of resin"29(171), and even movements acquired throughout her life, sedimented within her muscle memory: "My hand lost the movement / of making cider and bread" 30 (172). These traces of concrete memories —specific imageries of smells, sounds, faces, gestures, among others— become temporal gaps toward the past through which the subject paradoxically zigzags toward the imminent future of disposition and immobility. We would venture to say that, since Mistral wrote these poems near the end of her life, she may have used them to mentally simulate death, allowing herself to be pierced by imageries of erratic and unorganized memories. This would imply a drifting creative imagination in a state of disinhibition and non-focused attention, as described by Liu, but possibly subject to an extreme and inevitable chance by obliteration's force of gravity, like a celestial body on a collision course with a planet. This is how Mistral, riding the poem, crosses for the last time the skies of the discontinuous memories of her past before reaching her final dawn.

## Conclusions: Chile Aches in All My Bones...

The Chilean poet Rafael Rubio, in his poetic rereading of the relationship between Doris Dana and Gabriela Mistral and the death of the latter, describes Mistral's farewell to Chile in the following terms:

<sup>26</sup> In the original Spanish: "padres y hermanos, huertos y campiñas, / el rumor de su río, los caminos, / el cuento de su hogar, su propio rostro / y su nombre, y los juegos de la infancia".

<sup>27</sup> In the original Spanish: "hermosa y pura".

In the original Spanish: "emigrada judía / como huella en arenal".

<sup>29</sup> In the original Spanish: "las mentas / cuyo olor me haga llorar"; "una oleada de resinas".

<sup>30</sup> In the original Spanish: "Suelta mi mano sus gestos / de hacer la sidra y el pan".

I will never return to the old Chile. I will not return to its skies or valleys burnt by the sun of apathy. [...] I suffer my homeland in my arteries, Chile aches in all my bones, this country that rejects me burns, this long and narrow exile of anguish, where I wish to never place another step. (36)

Rubio's poetic invention perfectly captures the paradox that we have developed in this study, creating a dialogue between literary analysis and neurosciences: the im(possibility) of returning to Chile introjects into Mistral's physical and creative core, mobilizing her deepest memories and intertwining them with emotional nuances surrounding the poetic composition in imageries impregnated with perceptive richness.

We saw how Mistral could have approached the writing of some of her poems with the aim of abandoning herself in a more relaxed and spontaneous emotional and mental state, in which it was easier to reencounter her memories and sensations. Thus, she relived them by activating neural networks that are involved in a real perceptual situation, but also in the memory's active and changing reconstruction. These poems, constructed by multisensorial imageries, harbor an assortment of sensations, from the joy of reencounters, the fear of abandonment and the longing of dissolution, allowing the author to brush the emotion and perception of what irrevocably remained behind and feel it once last time to abandon it forever. In this way, we have followed a possible route to comprehend Gabriela Mistral's rich, intense, and painful creative and human adventure, lived under the sign of the potentiality within the impotentiality.

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