CHAPTER ONE

¿Qué es la materia? / What's the Matter? Material *Rareza* and *Memorias de Leticia Valle*

> [E]l agua no tiene una superficie, sino sólo un límite mal determinado. Ese pilar del puente de hierro [...] manifiéstase, al considerarlo con cuidado, como una forma temblorosa, cuyas partículas se tambalean como las delicadas hojas de un ramo de flores.
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> —Hans Reichenbach, *Átomo y cosmos: Concepción física actual del universo*[1]

Growing up strangely in a molecular world

These passages from German empiricist philosopher Hans Reichenbach's 1930 book (Spanish translation 1931, English translation 1932) exemplify the vivid language used by science writers as they introduced paradigm-shifting ideas to nonspecialist audiences. Reichenbach connects invisibly small structures to a striking natural scene: alongside a delicately trembling branch of berries, the structures and forms that support and define daily life suddenly lose their form. This radical reimagining of everything from lakes to bridges may produce confusion and uncertainty, but for the many writers who attempted, in the first half of the twentieth century, to convey the immediacy and importance of the particulate composition of everything from elderberries to stars, the potential for revolutionary ways of relating to a world seen anew hangs heavy in their prose.

The quivering, trembling vagaries of matter do not only loosen the boundaries between bodies and objects or dissolve apparent solidity—a radical enough proposition in itself. They also call up a host of questions

1 *Átomo y cosmos: Concepción física actual del universo*, trans. Javier Cabrera (Madrid: Revista de Occidente, 1931), 14. "[T]here is no surface [to the lake], but only a vague frontier zone." "[The bridge] reveals itself to the closer observer as a quivering structure, whose particles tremble in confusion, like the fine ramifications of a panicle of elderberries." Hans Reichenbach, *Atom and Cosmos: The World of Modern Physics*, trans. Edward Allen (New York: Macmillan, 1957), 22.

that make materiality itself seemingly difficult to locate. The senses are quickly called into question, since what can be touched or seen may not prove materially substantial. Microscopic particles call attention to the uncertainty of the definitions of those objects that seem to impose firm borders and ignore the busyness and vibrancy inside them and permeating them. These qualities quickly introduce questions of energy, vitality, and the relation among parts and supposed wholes. Making sense of the material world becomes a particular sort of problem, and scientific discourse is poised to suggest and embrace new narratives, metaphors, and perceptual approaches.

In this chapter, I analyze a novel that is full of blurred material boundaries and interpenetrations between objects and bodies that are difficult to square with the otherwise quotidian events described in the story. Reading it in light of contemporary scientific texts on materiality provides an alternative way to understanding scenes that otherwise might seem mystical or fanciful. This alternative interpretation gives us particular insight into how materiality shapes gendered experience. Rosa Chacel's *Memorias de Leticia Valle* is a reflection by eleven-year-old Leticia on the strange feelings and events that have led up to an unnarrated incident generally read as her seduction–violation at the hands of her much older tutor, the town's archivist, Daniel.[2] Recalling her father murmuring of

2 Commenting in an interview with María Asunción Mateo on the inspiration for this plot, Chacel stated:

> En *Memorias de Leticia Valle* se ha supuesto que era mi autobiografía, pero ya te he dicho que es un retrato, que es distinto. Recuerdo que se me ocurrió escribirla de forma casual: estando un día con Timo y Valverde —yo escribía en aquel momento *Estación. Ida y Vuelta*— me insistieron en que leyera un texto de Dostoievski, y me negué porque no tenía tiempo. Me explicaron que era una historia de un hombre mayor que seducía a una niña, y entonces me acordé de otra historia similar que sucedió en un pueblo, de un maestro de escuela que también sedujo a una niña, con el consiguiente escándalo. Pero yo, que conocía a aquel hombre, y por cierto era muy atractivo, dudé de quién había seducido a quién. Porque me puse en lugar de la niña y pensé que yo hubiera hecho lo mismo que ella por atraerlo. Les dije a mi marido y a Valverde que en la historia de Dostoievski la niña se colgaba por el ruso. Y en la historia que escribí después, Leticia seduciría al profesor, y el que acabaría colgándose sería él. Sin embargo, yo nunca tuve un profesor tan fascinante como el archivero. (Mateo 74)
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> (It has been assumed that *Memorias de Leticia Valle* is my autobiography, but as I've told you, it's a portrait, which is different. I remember that writing it just happened to occur to me—I was writing *Estación: Ida y vuelta* at that time—[and] they insisted that I read a text by Dostoevsky, but I refused because I didn't have time. They explained it was a story of an older man who seduced a young girl,

the episode (which ends in her being sent to live with an aunt and uncle) "¡Es inaudito, es inaudito!" she remarks that this is what she had always wanted to tell him, to name something about herself that was just that, unheard of, unspeakable, but she had not known the words to say it. Leticia conceives of porous subjectivities, describing experiences of projection—or transportation—into the subjectivities of those around her as both affective and material. The first-person narration is marked both by a unique voice that seems more mature and eloquent than an eleven-year-old protagonist might be able to muster and by attention to seemingly mundane details and daily events. Leticia seems to be able to observe ways in which the material world and people around her invade and shape her, and, moreover, she seems able to manipulate this process.

By reading the young protagonist's narration of her aesthetic and affective experiences, particularly the currents of interest and affection among her, Daniel, and Daniel's wife, Luisa (who is also Leticia's music teacher), we gain insight into ways that her self-reported strangeness reveals the construction of gender through encounters that take place on different scales—one perceptible and narratable, another that slides into the barely sensible. Society, unable to conceive of her interpenetration with the people and world around her as anything but corporeal, insists on registering her relationship with a much-older tutor not only as sexual but as culminating in a scene of seduction or rape. All the while, Leticia's gender is at stake: we have her pronouncement that "yo no era una niña," (I wasn't a little girl) while she hears from adults that "todo lo mío era inaudito" (everything about me was unheard of) (Chacel, *Memorias* 18, 7).

> and then I remembered a similar story that had taken place in a village, of a schoolteacher who also seduced a young girl, and the resulting scandal. But I knew the man, who was, by the way, very attractive, and I had my doubts about who had seduced whom. Because I put myself in that girl's place, and I thought that I would have done the same as her to attract him. I told my husband and Valverde that in Dostoevsky's story, the girl hangs herself because of the Russian man. And in the story I wrote later, Leticia would seduce the teacher, and he would be the one who would end up hanging himself. However, I never had a teacher as fascinating as the archivist.)

As the author's comments reveal, she did not set out to write a scientifically inflected novel on gender—she is interested in the narrative arc of local scandal and its echoes in a story by Dostoevsky. In this chapter and throughout, I focus not on the author's intention or her reading of scientific publications but on how scientific discourse that was popular and circulated widely can be seen as shaping literary representations of gender.

All that is unspeakable and unheard of in Leticia, I will argue, is tied to her being "not a little girl" and to her perception of the material world.

I suggest that fascination with the atomic model brought the possibility of openness between people and objects to the fore of the popular imagination, setting up a reading of material things in fiction not as carriers of fixed significance (i.e., the gift of a blanket passes on an erotic intention) but as the productive translators of uncertain meaning (i.e., Leticia feels something that is changed by seeing and feeling the blanket she will give to Luisa). The type of communication made evident by popularly propagated understandings of matter—relation and communication through material contact and invisible (e.g., vibratory) contact through objects and "ether"—suggests a blueprint for reading the flow of details in the novel that skirt narrative in favor of a nearly palpable accretion of words, gestures, glances, etc., that constructs Leticia's unheard-of non-little-girlness. In what follows, I introduce the author and the context in which she wrote and lived, including her relationship to the avant-garde and how her innovative prose style has been read, before delving into the rich and suggestive scientific discourse on materiality that circulated in the popular press. These texts explored themes including perception and the senses, permeability, and solidity in relation to the atomic or molecular composition of things. I conclude this section on science with an overview of medical science on sex and gender from this period. While the discussion in that field have different preoccupations, I show that what defined gender was very much up for debate. I then carry forward the images, portrayals of the world, anxieties, and excitement captured in the scientific works on materiality to my reading of Chacel's novel. A section on eroticism and the protagonist's non-narrative approach to "making sense" establishes parallels with these scientific texts and introduces my scientifically attuned reading of Leticia's strange childhood.

Rosa Chacel

María Asunción Mateo's biographical sketch of and interview with Chacel, *Retrato de Rosa Chacel* (Portrait of Rosa Chacel), sheds light on the movements and contacts the author felt to be central to her writing and thinking. Upon marrying Timoteo Pérez Rubio in 1922, Chacel and her husband traveled to Rome, a prelude to later European travel and to her eventual exile in Brazil and Argentina after the Spanish Civil War. In Paris, Chacel became friends with Max Ernst and Pablo Picasso, among others. In South America, she was to become friends with Norah Borges, and Victoria Ocampo would publish the first chapter of *Memorias* in *Sur*

even before Chacel's arrival in Buenos Aires.[3] Regarding that very first trip abroad, Mateo writes that

> [Chacel] ha contado en muchas ocasiones que para este primer viaje metió en sus maletas dos libros muy preciados y que significarían mucho a lo largo de su carrera literaria: *Retrato del artista adolescente*, de James Joyce ("Esto es la novela", diría al concluir su lectura), en traducción de Dámaso Alonso, y un tomo, el primero, de las Obras Completas de Sigmund Freud. (23)
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> (Chacel has recounted on many occasions that for that first trip, she packed two treasured books that would mean a lot to her over the course of her literary career: *A Portrait of the Artist as a Young Man*, by James Joyce ["This is the novel," she would say upon finishing it] translated by Dámaso Alonso, and the first volume of the Complete Works of Sigmund Freud.)

This nod to Freud, alongside the content of Chacel's own novel, has likely led critics to focus largely on Freudian readings of young Leticia. In *Under Construction: The Body in Spanish Novels*, Elizabeth Scarlett argues that "Chacel takes on another *maestro*, Sigmund Freud, whose discovery of the unconscious mind she claims to have intuited when she was seven years old."[4] Scarlett goes on to contrast Freud's use of "permeability of boundaries of the self to maintain that the female ego is forever incomplete" with Leticia's balance between permeability and personal autonomy (85). I argue that the narration of this permeability, when we understand it with scientific narratives on materiality, also evidences nonnormative and incompletely articulated sensibilities that skirt and run through categories such as gender and sexuality. Instead of adhering closely to Freudian concepts and categories in my reading, I trace other possible scientific genealogies of the permeable self and the unconscious mind.

Memorias de Leticia Valle allows us to delve into Chacel's focus on the generally unobserved and perhaps unobservable currents of daily experience. Interestingly, Chacel's admiration for James Joyce is less widely commented upon than is her reading of Freud, though she is quite adamant about Joyce's importance in her literary formation. She also cites surrealism, "la simultaneidad del cine" (the simultaneity of film) (Mateo 71), and her

3 See María A. Mateo, *Retrato de Rosa Chacel* (Barcelona: Círculo de Lectores, 1993), 25, 77–78.

4 Elizabeth A. Scarlett, *Under Construction: The Body in Spanish Novels* (Charlottesville: University Press of Virginia, 1994), 78.

"atención total al proceso de la ciencia" (complete attention to scientific progress) (Mateo 73). These varied influences reflect her broad interest in cultural developments. Chacel would define herself as "una renovadora de la forma, pero no de la lengua" (an innovator in form but not of language), and her attempt to capture lived experience through Leticia's narration results in a texture and tone that is both innovative and not unrelated to Joycean modernism (Mateo 72). This chapter contemplates both these characteristics of Chacel's prose and the unseen and often overlooked psycho-social processes taken up by the novel. However, besides sidestepping a Freudian interpretation, I also question whether sexuality is too limited a template for understanding the dynamics of the novel and if indeed setting aside the sexual in favor of less defined categories of perception and experience might shift us from understanding the novel as a relatively straightforward if surprising tale of seduction to seeing what insight it offers into how social understandings of gender, sexuality, and eroticism come to be felt by individuals. In the next section, I look at some of the scientific progress that might have interested Chacel, particularly the myriad of texts that look to explain the nature of matter to a lay audience. In breaking down matter into its smallest component parts for readers, scientific authors emphasized the lines of continuity among human and nonhuman forms, which shape our experience even if they are difficult to perceive with our senses.

¿Qué es la materia?

Numerous lectures, articles, and books published in the first decades of the twentieth century asked what precisely matter was: ¿Qué es la materia?[5] The topics of matter and materiality raised any number of questions that might seem far afield. Contained within the clarifications of atomic structure that these studies take up are questions of sameness, difference, and relation. The patterns of inquiry that emerge in popular scientific writing on matter are a reminder that the categories of materiality, perception, relation, and desire are inextricable. The insistence that we (and the stars!—recall Reichenbach's title, *Atom and Cosmos*) are all made up of the same stuff overlaps with questions of how we perceive that stuff outside of us, and what happens if it is imperceptible. These reflections on sense perception often trouble the line dividing us from what we are sensing, even as we feel its effects in our bodies. An underlying anxiety about the loss of the distinction between

5 See, for example, Blas Cabrera's "¿Qué es la materia?" Curso de Conferencias desarrollado en la Escuela Especial de Ingenieros Agrónomos, Sesión inaugural, 1934; or Hermann Weyl's *¿Qué es la materia?*, trans. Blas Cabrera (Madrid: Revista de Occidente, 1925).

our bodies and what they perceive also emerges in discussions of force and form—what is it that animates some matter while leaving other matter inert? And what gives it a certain shape and not another?

Materiality via monism: singular stuff

Monism—the idea of an underlying singular stuff that makes up the universe—was a widespread and oft-cited philosophical and scientific idea, with Ernst Haeckel as one of its great late nineteenth-century proponents. Much writing on monism eschews the specialized language of later texts, more along the lines of Reichenbach, that hoped to explain the world of atoms to a lay audience. Indeed, monists such as Haeckel took pains to explain to readers that their scientific ideas were in no way at odds with religious ones; this explanation animates his *El monismo como nexo entre la religión y la ciencia: Profesión de fe de un naturalista* (published in English as *Monism Connecting Religion and Science: A Man of Science*). Unlike vitalist approaches, which posited an animating force to matter, monism held that the single substance that composed the universe included both force and matter. In *El monismo como nexo*, Haeckel writes:

> Es evidente, que con esta palabra [*monismo*] expresamos nuestra convicción de que *existe un espíritu en todas las cosas*, y de que, todo el mundo cognoscible subsiste y se desarrolla bajo una ley fundamental, lo que equivale también á decir, en sentido más concreto, que admitimos la unidad esencial de la naturaleza inorgánica y de la orgánica, siendo esta última producto de la evolución lenta de la primera. (14)
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> (By this we unambiguously express our conviction that there lives "one spirit in all things," and that the whole cognisable world is constituted, and has been developed, in accordance with one common fundamental law. We emphasise by it, in particular, the essential unity of inorganic and organic nature, the latter having been evolved from the former only at a relatively late period.)[6]

As this passage makes clear, monism departed from contemporary vitalism, which concerned itself with the animating force that sets organic matter apart; vitalists further set themselves against mechanists by claiming

6 Ernst Haeckel, *Monism as Connecting Religion and Science: A Man of Science*, trans. J. Gilchrist (Project Gutenberg, 2005), n.p., https://www.gutenberg.org/ebooks/9199. All English translations of this work are from this unpaginated public-domain edition.

that "something always escaped quantification, prediction, and control."[7] Haeckel instead posits that the material and the spiritual are one, and that the human soul is only a small part of an "alma del mundo" ("world-soul") (*El monismo como nexo* 19). Thus, while Haeckel cites Julius Robert von Mayer and Hermann von Helmholtz as the discoverers of Law of Conservation of Energy, and Lavoisier's Law of Conservation of Matter, he explains that these two laws form, to his mind, a singular law of "the conservation of substance" following the monist inseparability of force and matter.[8] The singular nature of force and matter further implies the unity of the inorganic and the organic: "tampoco podemos reconocer una absoluta diferencia entre los reinos animal y vegetal, ni aun entre el animal y el hombre" ("[nor] can [we] recognise an absolute distinction between the animal and the vegetable kingdom, or between the lower animals and man") (Haeckel, *El monismo como nexo* 14). Not only is the human soul "una parte insignificante de esa grande y comprensiva 'alma del mundo', bien así como nuestro cuerpo sólo constituye una molécula del gran mundo orgánico" ("but an insignificant part of the all-embracing 'world-soul'; just as the human body is only a small individual fraction of the great organised physical world") (Haeckel, *El monismo como nexo* 19), but all matter can also be seen to possess certain "propiedades intelectuales" (intellectual properties), cells their own "vida individual psíquica" (individual psychic life).[9] But given that cells are made up of yet smaller molecules, Haeckel is then driven to speak of this "suma de fuerzas atómicas" (sum of atomic forces) as "[el] alma del átomo" (the soul of the atom) (*La evolución* 31). Reading of the psychic life of cells and the souls of atoms, we are led to imagine ourselves along the same lines, created from the same template as the minute parts we are learning of: personification cuts both ways as the atom gains a soul and we gain an atomic nature. Haeckel might have understood these descriptions as more literal than metaphorical, though his readers likely sensed a metaphor, and that metaphor comes back for us: once we have imagined cells and atoms to behave and interact with the world as we do, even thinking and feeling as we do, their other characteristics suddenly seem as though they might govern *our* actions and experiences. If atoms are spoken of as thinking and

7 See Jane Bennett, *Vibrant Matter: A Political Ecology of Things* (Durham, NC: Duke University Press, 2010), 63.

8 Ernst Haeckel, *El monismo como nexo entre la religión y la ciencia: Profesión de fe de un naturalista*, trans. M. Pino G. (Madrid: Imprenta de Fernando Cao y Domingo de Val, 1893), 20. On Mayer, Helmholtz, and Lavoisier, see *El monismo como nexo* 19–20.

9 Haeckel, *La evolución y el trasformismo* (Madrid: Imprenta Rollo, 1886), 28, 29. The name of the Spanish translator is not included in this edition. All English translations from this work are mine.

feeling beings, we, thinking and feeling beings that we are, might begin to sense that we too can connect and participate in material formations much as atoms do.

Reflecting this continuity between particles and people, Haeckel writes: "El ódio ó el amor de los átomos, la atracción ó la repulsión de las moléculas, el movimiento y la sensación de las células y de los organismos celulares, la imaginación y la conciencia del hombre, son grados diversos de un mismo proceso psicológico evolutivo" (The hatred or love of atoms, the attraction or repulsion of molecules, the movement and sensation of cells and cellular organisms, the imagination and consciousness of man, are varying degrees of a single evolutionary psychological process) (*La evolución* 34). As one might expect from the affective and sensorial language he uses to speak of the lives of molecules and atoms, for Haeckel, monism immediately crosses out of the strictly scientific into a broader approach to the world: "La investigación monista de la Naturaleza como conocimiento de lo verdadero, la ética monista como educación para lo bueno, la estética monista como cultivo de lo bello, tales son los tres principales objetivos de nuestro Monismo" ("Monistic investigation of nature as knowledge of the true, monistic ethic as training for the good, monistic aesthetic as pursuit of the beautiful—these are the three great departments of our monism") (*El monismo como nexo* 49). Monist and nonmonist approaches to materiality not only brought these ethical and aesthetic concerns into view but also were related to contemporary areas of scientific investigation.

The roles of energy and vitality were chief among the list of concerns often paired with materiality as thinkers sought to understand what propelled matter, organized it, or brought it to life. There are those for whom matter and energy are enough and many for whom an élan vital, a soul, or an animating divinity must come to be mixed up in, or already reside in, the physical stuff of the universe. As early as 1869, Ludwig Büchner's 1855 book *Kraft und Stoff: empirisch-naturphilosophische Studien; in allgemein-verständlicher Darstellung* was translated into Spanish; at least eight Spanish editions were released through 1925 as *Fuerza y materia: Estudios populares de historia y filosofía naturales*.[10] Büchner exhorts readers: "¡No hay fuerza sin materia; no hay materia sin fuerza! Imposible es concebir la una sin la otra; ambas, si se las considera separadamente, no son más que abstracciones vacías de sentido" ("No force without matter—no matter without force! Neither can

10 See Ludwig Büchner, *Fuerza y materia: Estudios populares de historia y filosofía naturales*, trans. A. Avilés, 8th ed. (Barcelona: La Revista Blanca, 1925[?]). English translations are from: *Force and Matter: Empirico-Philosophical Studies, Intelligibly Rendered*, trans. and ed. J. Frederick Collingwood (London: Trübner and Co., 1864).

be thought of *per se*; separated, they become empty abstractions") (10, [2]). Without deviating from a discussion of matter to delve into the literature on vitalism, it may simply be helpful to know that in conversations on matter, most writers were attuned to the potential for something seemingly or temporarily inert to take on a life of its own, or to interact—in predictable or unexpected ways—with the psychic lives of the atoms or individuals around it. In all of this scientific literature, the question of matter—how it is arranged, composed, and animated—is pressing and addressed in the most vivid language, evoking a world that determines how we live and feel but that remains largely invisible.

Mutable matter

The elemental sameness at the foundation of monism survived in later texts on the material world, even when they were less concerned with positing a vital or even spiritual life of matter. That sameness was in turn highly suggestive of the possibility of transitioning between forms. Jean Thibaud, the author of *Vida y transmutaciones de los átomos* (translated by Xavier Zubiri for Espasa Calpe in 1939 from the French *Vie et transmutations des atomes*, first published in 1924 and reedited repeatedly over several decades), capitalized on fascination with this sort of shape shifting in opening the prologue to his book with a reference to alchemy: "Los físicos actuales, más afortunados que sus remotos precursores, los alquimistas de la Edad Media, han logrado transmutar la materia, es decir, provocar artificialmente la mutación de los cuerpos simples entre sí" (Modern-day physicists, more fortunate than their remote precursors, the alchemists of the Middle Ages, have managed to transform matter, that is, to artificially precipitate the mutation of simple bodies into one another).[11] In his first chapter, he goes on to explain that the apparent diversity of the world is in fact a unity that escapes our senses but that has been revealed "después de largas investigaciones acerca de la textura misma de la materia" (after extensive research regarding the very texture of matter) (Thibaud 20). Thibaud reminds his reader to think of atoms not as isolated but rather as "la individualidad necesaria del tejido material" (the necessary individuality of the fabric of matter) (21). This sort of materiality points us first to a substrate of sameness and unity before opening up the potential for new differentiations and arrangements. The *tejido material* allows for interrelation, and if atomic consistency is the unvarying warp, then its transmutable nature is the weft that allows for

11 Jean Thibaud, *Vida y transmutaciones de los átomos*, trans. Xavier Zubiri (Buenos Aires: Espasa-Calpe, 1939), 7. English translations mine.

new patterns and textures. This *tejido* is also very much a living tissue, open to influence and change.

According to Pedro Sala y Villaret, who in 1891 published *Materia, forma y fuerza: Diseño de una filosofía*: "[L]os mismos elementos que integran la naturaleza de un ser inorgánico componen la de un ser organizado; toda la diferencia está en los grados, en el plan, en la cantidad é intensidad" (The same elements that make up the nature of an inorganic being compose that of an organic being; the difference lies entirely in degree, order, quantity, and intensity).[12] Sala y Villaret then cites Haeckel to bolster his credibility, highlighting the consistency between his own ideas and those of the "insigne físico" (distinguished physicist)—whom he purports to have preceded in articulating them—and then proceeding to disparage the more famous man for his supposed atheism (46). While the degree, organization, quantity, and intensity of organic and inorganic matter may differ, Sala y Villaret claims, they are otherwise akin, and thus matter could potentially move between the two categories by becoming more or less organized.

A similar contemporary narrative of the nature of matter was couched in terms likely to spark the imagination of a wide public: that both stars and humans are made of the same stuff. Arthur Eddington and Reichenbach, whose books and articles were published in Spain in the 1920s and 1930s, emphasized the idea that everything from plants to humans to stars is made of the same material, and the apparent solidity of matter is understood to dissolve into undifferentiated flows. Already in 1891 Sala y Villaret was writing that astronomy and the study of stars gave us evidence that it was matter in the form of chemical elements that was a constant while larger forms shifted and changed (see Sala y Villaret 144). Not only did astronomy provide an intriguing example of arguments about matter being made in other fields, but it also suggested that while stars leave evidence—evidence that is perceptible to us—that remainder is made possible by their material composition, which we do not perceive directly.

(Im)perceptible matter

This question of what we can or cannot see or otherwise sense—while we somehow still experience the effects of that unsensed matter—brings to the fore the issue of our perceptive abilities and their limitations. In an article published in the *Revista de Occidente* in 1930, which I will discuss further below, Eddington writes of the phenomenon, and mystery, of perception:

12 Pedro Sala y Villaret, *Materia, forma y fuerza: Diseño de una filosofía* (Madrid: José Cruzado, 1891), 45. English translations mine.

> [V]eamos cómo se alcanza nuestro supuesto conocimiento del grumo de materia. Alguna influencia de ella emanada actúa sobre la extremidad de un nervio, originando una serie de cambios físicos y químicos que se propagan a lo largo del nervio hasta una célula cerebral; allí se produce un misterio y surge en la mente una imagen o una sensación que no podemos asimilar al estímulo que la excita. Todo lo que se conoce del mundo material tiene que ser inferido, en una u otra manera, de aquellos estímulos transmitidos a lo largo de los nervios.[13]
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> ([C]onsider how our supposed acquaintance with the lump of matter is attained. Some influence emanating from it plays on the extremity of a nerve, starting a series of physical and chemical changes which are propagated along the nerve to a brain cell; there a mystery happens, and an image or sensation arises in the mind which cannot purport to resemble the stimulus which excites it. Everything known about the material world must in one way or another have been inferred from these stimuli transmitted along the nerves.)[14]

Eddington here describes a divide between us and the matter that surrounds us, that distance standing in the way of our direct perception of it. Instead, we have only stimulus and inference—and a mystery. But the gaps in the mechanism of perception described in Eddington's account are telling. First we have "some influence" that emanates from matter, reaching our nerves, and setting off a chain of events now within our bodies. Then we have the mysterious process by which an image or sensation communicates to us something about the world outside. Eddington draws our attention to how the limits of our perception impose boundaries on our knowledge of matter. An anonymous reader commenting in the margins of a page about the form of atomic nuclei in a copy of the 1942 edition of *Vida y transmutaciones de los átomos* writes across the top of the page, "Hay condicionamiento determinado por la forma de traducir el pensamiento" (There is conditioning determined by how thought is translated) and in the left-hand margin: "Aquí debe haber una relación tamaño-espacio, que no es real, sino función de la percepción, dato previsto puesto proyección del sistema lógico perceptivo del experimentador" (Here there must be a size-space relationship that is not real, but rather is a function of perception, a predictable fact given the projection of the

13 Arthur Eddington, "La ciencia y el mundo invisible," *Revista de Occidente* 87 (1930): 337.

14 Arthur Eddington, "Science and the Unseen World," Google Play. Pickle Partners Publishing (2019): 18. Originally published in English in 1929.

logical-perceptive system of the experimenter).[15] Indeed, the problematic role of the experimenter will trouble scientists who speak of the "observer effect" to discuss the ways that people intervene in the systems they are trying to study.[16] But this reader of Thibaud is identifying something slightly different: how observers' perceiving minds distort their understanding of a system even if they have not physically interrupted it. Biosemiotician Jakob von Uexküll—whose work appeared in Spanish translations throughout the 1920s, 1930s, and 1940s—believed this was such a fundamental aspect of how we see the world that it was important to speak of the many different versions of the world experienced by different species.[17]

The wide range of possible perceptions of the material world and the varying interactions that result within it inform Uexküll's thesis on the existence of subjects' Umwelten—their self-centered worlds, or *mundos circundantes*. This leads him to write: "Resta tan sólo aún demostrar a la vista de los ejemplos ya citados que también la constancia de la materia es una ilusión. Las propiedades de la materia de un objeto son dependientes de las escalas sensoriales de aquel sujeto, cuyo mundo circundante es válido precisamente para nuestra investigación" (All that is left is to demonstrate,

15 The copy of this edition that I consulted is housed at New York University's Bobst Library.

16 The observer effect is frequently confused with the Heisenberg uncertainty principle in quantum mechanics. The uncertainty principle does not state that our being present and carrying out an experiment changes its outcome. Nor does the observer effect mean that purely by standing by and contemplating a phenomenon we necessarily intervene in it. And yet the confusion surrounding these concepts generally gives rise to the notion that our mere presence—not just physical but necessarily mental—holds some kind of sway over the material world. For more on both topics, see the *Stanford Encyclopedia of Philosophy* entries on "The Uncertainty Principle" (Jan Hilgevoord and Jos Uffink, "The Uncertainty Principle," in *The Stanford Encyclopedia of Philosophy*, ed. Edward N. Zalta, 2016, plato.stanford.edu/archives/win2016/entries/qt-uncertainty/) and "Theory and Observation in Science" (James Bogen, "Theory and Observation in Science," in *The Stanford Encyclopedia of Philosophy*, ed. Edward N. Zalta, 2017, plato.stanford.edu/archives/sum2017/entries/science-theory-observation/).

17 See, for example: Jakob von Uexküll, *Cartas biológicas a una dama* [1925], 2nd ed., trans. Manuel G. Morente (Madrid: Revista de Occidente, 1945); Uexküll, *Ideas para una concepción biológica del mundo* [1922], 2nd ed., trans. R. M. Tenreiro (Buenos Aires / Madrid: Espasa-Calpe, 1934); Uexküll, "La biología de la ostra jacobea," *Revista de Occidente* 9 (1924): 297–331. The question of how different species experience the world, viewed as a question of consciousness, would continue to be compelling, with Thomas Nagel in 1974 writing "What Is It Like to Be a Bat?," *The Philosophical Review* 83, no. 4 (1974): 435–50. However, Nagel would be interested in the gap between individual subjectivities in a way that Uexküll was not.

in view of the examples already cited, that the constancy of matter is an illusion. The material properties of an object depend on the sensory scale of the subject whose self-centered world is precisely of interest for our research) (Uexküll, *Meditaciones biológicas* 151).[18] And so, our perception introduces us to only one side of a material world that not only is in constant flux as a matter of course but also takes on different apparent forms for different (and differently invested) observers.

Which senses we might entrust with the act of perception was also up for debate. Given the ways in which vision necessarily falls short in the microscopic material world, some scientists preferred to argue for the primacy of other senses. This reshuffling of the senses raised the question of whether or not matter could be defined as something tactile, to be touched, felt, and thus observed firsthand. David Katz, in *El mundo de las sensaciones táctiles* (translated in 1930 by Manuel García Morente from the 1925 German original *Der Aufbau der Tastwelt*), argues for more weight to be given to this oft-overlooked sense, given that it has "una importancia mucho mayor que los demás sentidos en el desarrollo de la creencia en la realidad del mundo exterior" ("a far greater role than do the other senses in the development of belief in the reality of the external world").[19] Touch can disprove optical illusions and offer "proof"; yet there are those aspects of the material world that seem to escape even tactile perception.

In "La ciencia y el mundo invisible," Eddington delves into the relationship between scientific discoveries largely having to do with atoms and electrons and "the invisible world," touching on questions of religion as well as human consciousness. He traces the appearance of matter in the universe from the formation of stars to the evolution of humans, highlighting along the way scientific approaches to the material world and the questions of human consciousness and mysticism or religion that seem to edge beyond it. He, like others, is attentive to how sensory perception informs our knowledge and the tensions between firsthand observation and both the significance we draw from it and its representation in symbolic or mathematical terms. He asks us to imagine that an alien comes to earth and witnesses the time when people are observing two minutes of silence on Armistice Day, deducing that the cessation of sound is similar to a solar eclipse—the alien is right in that the silence is brought about by a changed arrangement of atoms and

18 English translation mine. I will return to this idea that a single material object can become multiple, differing for each perceptive individual it encounters, in chapter 3.

19 David Katz, *El mundo de las sensaciones táctiles*, trans. Manuel García Morente (Madrid: Revista de Occidente, 1930), 255. *The World of Touch*, trans. Lester E. Krueger (New York: Psychology Press, 1989), 240.

electrons but mistakes its significance (Eddington, "La ciencia" 355). People have chosen to remain silent and are not under the influence of a physical phenomenon but a cultural one. Not only might our senses mislead us, our interpretations of the world around us might be drastically limited by our social or cultural knowledge. We might be correct on one level but have profoundly missed the point on another. But the alien on Armistice Day also alerts Eddington's reader to the fact that the constant potential for misreading a world unknown to us also brings with it the possibility of rereading the one we believe ourselves to know well.

Eddington's argument is in large part about the spirit in which scientific research ought to proceed and the spirit in which it ought to be received by the public. To that end, he cites the following paragraph from the 1656 Quaker "Consejos de la Sociedad de Amigos" (Advice of the Society of Friends) as an appropriate model for the incorporation of scientific thinking:

> No exponemos estas cosas ante ti como una regla o ritual para que prescindas de ellas, sino para que todos, con una medida de la luz, que es pura y santa, puedan ser guiados; y así, caminando y perseverando en la luz, pueden realizarse aquellas cosas en el espíritu, no en la letra; pues la letra mata, pero el espíritu vivifica. (Quoted in Eddington, "La ciencia" 369)
>
> (These things we do not lay upon you as a rule or form to walk by; but that all with a measure of light, which is pure and holy, may be guided; and so in the light walking and abiding, these things may be fulfilled in the Spirit, not in the letter; for the letter killeth, but the Spirit giveth life). (Quoted in Eddington, "Science" 53–54)

This chapter's approach to publicly shared scientific knowledge is similar: it is a guiding spirit for my literary analysis below and understood as a light that authors walked in whether they fully perceived it or not.

When our five senses were not enough to take in information about the material world, vibratory theory stepped in: it focused on the invisible and even the wholly imperceptible, on the tiny movements of matter. Perhaps as a result, vibratory theory quickly seeped out of the realm of those who believed themselves to be real scientists giving rise to theories of the occult communication made possible by these unseen and mostly unsensed waves (interested in amplifying our understanding of the senses, Katz proposed a sixth, vibratory sense that gives us access to unseen information about the nature of objects). While there may seem to be a great distance between the earlier research on cells by those such as Santiago Ramón y Cajal and later vibratory theory and eventually quantum theory, all raised interest and

concern surrounding the imperceptible structures and behavior of matter. Sala y Villaret articulated a relatively rudimentary theory of movement at the end of the nineteenth century, maintaining that higher beings of more complex and perfect organization experience faster movements, so that a hierarchy exists from undulations to oscillations to finally vibrations (see Sala y Villaret 59). That very movement, that "*palpitación* perenne" is life-sustaining: "El líquido ondula, el aire oscila. Ambas cosas se cifran en la circulación de la sangre" (Liquid undulates, air oscillates. Both are present in the circulation of blood) (Sala y Villaret 60).[20] In 1924, French physicist Louis de Broglie introduced the idea that matter could behave like waves.[21] As all of these discoveries were a matter of microscopic structures, the apparent solidity of matter and thus our relationship with no-longer-quite-solid objects came into question.

All that is solid

The disarticulation of solid matter—or rather our ability to perceive and productively discuss that fragmentation—points to the construction of the material world and communication through it, both of which take place via

20 This realization allows Sala y Villaret to get in a footnote jab at Haeckel: "La explicación cumplida de la sensación y demás fenómenos psicológicos es lo que no ha encontrado Haeckel ni otro alguno de los sabios, que, partiendo de principios iguales á los nuestros, han ido á parar al materialismo" (The full explanation of sensation and other psychological phenomena is what neither Haeckel nor other learned men have found, as they, working from the same premise as we do, have ended up with materialism) (Sala y Villaret 60). Sala y Villaret later proposes that we think of humans as microcosms of the universe: "Se ha dicho, y es una verdad, que el hombre es un mundo pequeño (microcosmos); todo lo del universo está representado en él, los elementos del mundo inorgánico, y las varias formas del mundo orgánico. [...] Tiene su parte sólida, líquida y flúidica; posee la gravedad, y demás condiciones de los inorgánicos de que se compone, las propiedades de la vida vegetal, de la sensitiva y de la racional: es en realidad un compendio del universo" (It has been said, and it is true, that man is a small world (a microcosm); everything in the universe is represented in him, the elements of the inorganic world, and the diverse forms of the organic world. [...] Man contains solid, liquid, and electric parts; he possesses gravity and other conditions of the inorganic substances he is made of, the properties of vegetable life, sensory life, and rational life: he is truly a compendium of the universe) (Sala y Villaret 130).

21 As Alicia Rivero explains, "electrons behave like waves in some experimental arrangements and like particles in others; this is called the 'wave-particle duality.'" Alicia Rivero, "Heisenberg's Uncertainty Principle in Contemporary Spanish American Fiction," in *Science and the Creative Imagination in Latin America*, ed. Evelyn Fishburn and Eduardo L. Ortiz (London: Institute for the Study of the Americas, 2005), 130.

processes invisible to the naked eye. Things that seem solid are no longer so. In these texts, we see matter cast as testifying to an underlying elemental consistency. This framing of the material universe held sway in even those discussions of matter that were not concerned with a monist approach. Eddington, in books such as *Stars and Atoms* (Juan Cabrera y Felipe's Spanish translation of the 1927 original, titled *Estrellas y átomos*, was published in 1928), attested to the attractive idea that we and stars were all made up of the same stuff.[22] In Eddington's writing, metaphors used to understand certain aspects of materiality flit suggestively from atomic scale to star scale to human scale:

> Una gota de agua contiene varios trillones de átomos. Cada átomo tiene, aproximadamente, una cienmillonésima de centímetro de radio. Aquí nos asombran los pequeñísimos detalles de la estructura; pero éste no es tampoco el límite. En el interior del átomo recorren sus órbitas los electrones, que son mucho más pequeños. Recorren sus órbitas como si fueran planetas alrededor del sol y en un espacio que relativamente a sus dimensiones no es menos amplio que el del sistema solar. (Eddington, *Estrellas y átomos* 18)

> (A drop of water contains several thousand million million million atoms. Each atom is about one hundred-millionth of an inch in diameter. Here we marvel at the minute delicacy of the workmanship. But this is not the limit. Within the atom are the much smaller electrons pursuing orbits, like planets round the sun, in a space which relatively to their size is no less roomy than the solar system.) (Eddington, *Stars and Atoms* 9)

He goes on: "Entre las dimensiones del átomo y las de la estrella existe otra estructura no menos maravillosa —el cuerpo humano—. El hombre se encuentra un poco más cerca del átomo que de la estrella. Aproximadamente 10^{27} átomos forman su cuerpo y unos 10^{28} cuerpos humanos constituyen material suficiente para edificar una estrella" (Nearly midway in scale between the atom and the star there is another structure no less marvellous—the human body. Man is slightly nearer to the atom than to the star. About 10^{27} atoms build his body; about 10^{28} human bodies constitute enough material to build a star) (Eddington, *Estrellas y átomoso* 18, [9]). It is not coincidental that this deft rhetorical and mathematical move brings such distant entities into relation—recall how Haeckel did something similar with the souls and

22 See Eddington, *Stars and Atoms* (Oxford: Oxford University Press, 1927).

psychic lives of atoms. We might not immediately perceive our relation to the vast and minuscule universes, but scientists helpfully remind us of it again and again.

Yet an idea of differentiation in form necessarily accompanies this shared material relation. What determines form? Hayles reflects on the question of form as it has to do with levels of organization: "[M]ost scientists recognise there are emergent effects that appear at different levels of organisation. Effects not noticeable at the molecular level, for example, may appear at the cellular level; effects not noticeable at the cellular level may appear at the level of the organism, and so on" (170). What makes us understand the universe-microcosm that is the human body as an individual rather than as a compilation poised to dissolve into its cosmic elements or its "propiedades de la vida vegetal" (Sala y Villaret 130)? Or if not dissolve materially, then meaningfully: Why not think about all of the carbon in a body as related (through its self-sameness) to the carbon in another body, or in many bodies? Where do we draw the lines and why? How much of what makes sense feels meaningful, and what happens when the delineations of bodies that regiment relationships among them no longer feel meaningful and can moreover be understood to no longer be quite sensible when atoms, elements, and waves have crept into our common sense? This shared mode of felt experience, an alternative "common sense"—although one that is just as ingrained and unscrutinized as ordinary common sense often is—is in fact how I look to explore gender.

The theme of a sameness underlying and defining materiality, alongside its mutability and the question of our ability to perceive this stratum of our existence, structures an understanding of the material world as a place where we make sense of things—both in our ability to reason through them and in the common sense we receive without conscious intervention. Such a world is formed in conjunction with our relation to it—we are similarly inextricable from our surroundings and unfixed, open to unsensed influences. Before turning to *Memorias de Leticia Valle*, I will provide a brief overview of the early twentieth-century scientific research on sex and gender in Spain. While this research is quite different from the scientific work on matter, it establishes gender as a slippery category, one that society must make sense of through material evidence and social means. Familiar anxieties about mutual influence and the difficulty of pinning down the material elements that could define the boundaries of bodies show up here as well.

The science of sex and gender in early twentieth-century Spain

While I consider the relation between materiality and gender to be more complex than the already complicated notion of locating maleness or femaleness in the body, it is worth outlining the pervading views on gender and sexuality as they evolved during the first half of the twentieth century, particularly as they relate to the ways that children's bodies were sexed and gendered. Sexological research met up with social discourses on gendered behavior and sexuality as scientists searched for the biologically determining site of sexual difference. In *Sex Itself: The Search for Male and Female in the Human Genome*, Sarah Richardson traces the history of the discovery and understanding of the X and Y chromosomes, which were "first called the 'odd chromosomes,' [...] discovered in 1890 and 1905," respectively, and first dubbed "sex chromosomes" in 1906.[23] It was not until 1959 that the Y chromosome was linked to determining male sex—binary sexual difference in humans was previously ascribed to the second female X—and it was then that the chromosomal diagnosis of sex overtook the hormonal one that had reigned for decades (with examination of the gonads also playing an important role) (see Richardson 83). While chromosomal sex was not generally seen as a determining factor in socially observed sex in the first half of the century, that did not stop (pseudo)scientific musing on the differences encoded in the X and Y chromosomes, frequently positing greater conservatism for females and greater variability and thus exceptionality for males (see Richardson 76–77).

What the relative fluidity of the hormonal model, the popularity of gonadal differentiation, and the later X and Y chromosomal diagnosis highlight is the uncertain location of sexual difference and the fact that the drive to uncover a definitive site or marker was coupled with, and influenced by, social concerns about gender. In *Hermaphroditism, Medical Science and Sexual Identity in Spain, 1850–1960*, Richard Cleminson and Francisco Vázquez García examine cases in which medical discourse endeavored to determine the sex of individuals through evolving styles of examination and diagnosis. They elaborate on Gregorio Marañón's theory of intersexuality, according to which "'intersexuals' were those in whom the triumph of maleness or femaleness had not been sufficiently complete to entail proper 'sexual differentiation.'"[24] Writing on the shifting definitions of (pseudo)

23 Sarah Richardson, *Sex Itself: The Search for Male and Female in the Human Genome* (Chicago: University of Chicago Press, 2013), 23.

24 Richard Cleminson and Francisco Vázquez García, *Hermaphroditism, Medical Science and Sexual Identity in Spain, 1850–1960* (Cardiff: University of Wales Press, 2009), 9.

hermaphroditism—but relevant, I would argue, to medico-scientific approaches to sex more generally—they note that "some doctors and social commentators wished to reassert difference between the sexes in the light of what was commonly understood as gender muddling by feminists, New Women and increasingly visible homosexuals at the time" (Cleminson and Vázquez García, *Hermaphroditism* 124). Like other scientific discourses, discussion of intersexuality reached a general public: in Carmen de Burgos's 1931 novel *Quiero vivir mi vida*, she has a Marañón-esque character lecture on intersexuality (see Cleminson and Vázquez García, *Hermaphroditism* 146). While the advent of chromosomal diagnosis served in some ways to confine the medico-scientific discussion of sex to a single site and to tamp down competing discourses on the subject, the largely prechromosomal moment of the 1940s is of interest for the heightened attention to sexual difference that comes from a confluence of social and scientific discourses.

In *"Los Invisibles": A History of Male Homosexuality in Spain 1850–1939*, Cleminson and Vázquez García identify childhood sexuality and seduction as central cultural concerns. They define two periods of high panic surrounding child sexuality in Spain: the first from 1850 through the first decades of the twentieth century, "a period characterized by the explosion of the concept of 'childhood in danger' and the application of policies of child protection"; the second from the 1920s to the Civil War (1936–1939) with "the incorporation of the notion of the corruption of children as part of the burgeoning 'sexual question' with its manuals on sex education for the school and family."[25] *Memorias* was written in the 1930s and 1940s—in 1938, Victoria Ocampo asked Chacel for whatever she had written thus far and Chacel responded with the first chapter of the book—and set around when the shift identified by Cleminson and Vázquez García takes place (see Mateo 78). Both sorts of panic—over children's correct or incorrect sexuality and, importantly, their relationship with adults—produced an explosion of writing on and talking about, and sometimes to, children in relation to sex.

Alberto Mira emphasizes that while the work of Sigmund Freud was known in Spain—and certainly by Chacel—the influence of his writing was dwarfed by that of Marañón's theories. Contemporary theories of indeterminate childhood sexuality were supported by Marañón's writing on the hormones and internal secretions that would in puberty set things straight (Cleminson and Vázquez García, *"Los Invisibles"* 146). Psychoanalysis and endocrinology could in that sense cooperate: "In both the endocrinological and the psychoanalytical model, the behaviour of the

25 Cleminson and Vázquez García, *"Los Invisibles": A History of Male Homosexuality in Spain 1850–1939* (Cardiff: University of Wales Press, 2007), 139.

teacher or instructor could be decisive in terms of the production of the sexual differentiation sought (in Marañón's scheme); or it could produce a trauma or a communicative disorder (cf. Freud) which would favour a homosexual object choice" (Cleminson and Vázquez García, *"Los Invisibles"* 147). The talking about sexuality, whether to or on behalf of children, that these authors identify is conspicuously absent from Chacel's novel—though the role of the corrupting teacher does appear. Implicit in the polemical discussion of the time is the need to use language, either through legislation or sex education, to bridge the gap between childhood and adulthood and ostensibly to ease the transition between the two.

In order to examine the ways that infantile and childhood sexuality was addressed in Spain in the first decades of the twentieth century, Mercedes del Cura and Rafael Huertas focus primarily on pedagogy that aimed to clarify, to children and their parents, the appropriate contours of childhood sexuality and its accompanying behaviors in order to create hygienic and unneurotic children, and later adults. The authors note that despite psychoanalysis's comparatively low profile in Spain, it did exercise an influence in the debates on how, and in how much detail, to clarify children's sexuality to them through educational enterprises. Following naturally, perhaps, on the panic that centered on boys' schools and the male corruption of male minors, the "niños" spoken of—in debates over masturbation, for example—are nearly always not all children but only little boys. While discourse on same- and opposite-sex male sexuality was abundant, women and girls, outside of discussions on maternity and the family, and eventually family planning, were largely elided.[26] In *Memorias*, Leticia recalls: "Me mandaban allí [al colegio de las Carmelitas] como a curarme de algo: a que aprendiese a ser niña, decían" (They sent me to the Carmelite school as if to cure me of something: for me to learn to be a little girl, they said) (Chacel, *Memorias* 18). The schoolroom is a place where gender roles are imposed and appropriate sexual behaviors hinted at.

Despite relative silence on girls' sexuality, the space of childhood in early twentieth-century Spain was fraught with dangers that might propel a young person—biologically, psychically, or socially—onto an inescapably "incorrect" path. One of the reasons that little girls' sexuality may have remained rather unremarked upon is that it represented simply a backward extension of women's sexuality, and the same familiar concerns about

26 See Mercedes del Cura and Rafael Huertas, "Medicina y sexualidad infantil en la España de los años treinta del siglo XX: La aportación del psicoanálisis a la pedagogía sexual," in *La sexualidad en la España contemporánea (1800–1950)*, ed. Jean-Louis Guereña (Cádiz: Universidad de Cádiz, 2011), 189–203.

seduction, the family, and the private sphere of the home largely applied. Katherine Murphy cites debates over the New Woman to demonstrate how androgyny and women's incursions into male spheres were seen as inextricable from a slew of sexual and moral perversions. Indeed, the panic over Leticia's gender is tinged with unspoken fears of a seeping deviancy that would undoubtedly doom the social life of an adult woman, particularly in the small town where the novel is set.[27]

Already apparent in these medical and legal discussions of gender and sexuality is that both are categories created and enforced in a social setting. Doctors and others took into consideration an individual's interactions with others, be it in examining the romantic and/or sexual interests of their intersex patients or monitoring the actions of young boys and male teachers; influences outside of the body were just as vital as hormonal flows inside. This attention, which crosses from the psychic to the social to the corporeal and back again, is not so unlike crisscrossing materialist narratives that move from the souls of atoms to the bodies of humans to the stuff of stars. Yet, unlike physicists, physicians are often more concerned with finding a fixed diagnosis and thus "curing" their patients with a concrete narrative, while scientific discourse, as we have seen, may provide a more open framework for understanding gender outside of a regimen of diagnosing ills. The immediately apparent strangeness that characterizes Leticia's complex relation with femininity (or perhaps more precisely, "little-girlness") certainly evades straightforward diagnosis, but it also provides insight into how materiality shapes gendered experience.

Materiality and gender in *Memorias de Leticia Valle*

I now turn to *Memorias de Leticia Valle*, and the unusual voice and minute observations of its young narrator. I suggest analyzing the novel's narrative style to think about language through coetaneous conceptions of materiality. I allow the scientific texts above to guide my attention to material encounters of bodies and objects that come into close proximity or contact, dissolve and re-form affects and sensed experiences, and subsequently change the physical ways that individuals interact. This approach can allow us to better understand the accretion of details throughout the novel and the somewhat opaque encounters with secondary characters whose lives collide with

27 See Katherine Murphy, "Unspeakable Relations: Eroticism and the Seduction of Reason in Rosa Chacel's *Memorias de Leticia Valle*," *Journal of Iberian and Latin American Studies* 16, no. 1 (2010): 51–72, esp. 63.

Leticia's own when we are given only vague hints as to their psychologies or motivations.

Unheard-of erotics

Leticia's narration resists solely sexual, solely mystical, or solely Freudian interpretations, not just in the instances of her "transportation" into other bodies and objects, which I will describe at greater length below, but throughout the more quotidian events in the novel in which Chacel describes in great detail Leticia's thoughts and the way in which she observes and recalls the world around her with all five senses. She must come to terms with the fact that her projections of herself, her melding with other people—or her understanding of herself as affectively and materially interrelated with those around her—is interpreted by society as sexual. Thus, in the text, her strangeness is both gendered and sexualized while maintaining some quality that exceeds the limits of both. This leads up to the "inaudito," unheard of and unspeakable, event of her possible seduction–violation by Daniel, the unnarrated denouement around which the young girl's memoirs are structured. I am interested in reading the erotic traces in the text not as sexual or mystical but rather as an index of the instability of both the limits of the body and the borders between the corporeal, psychological, social, and sexual. We are left with evidence of society's discomfort in the face of reconfigurations of the social skin that come about through material, and yet not immediately perceptible, processes.

Much in *Memorias* might be said to be "erotic," but beyond perhaps pointing to a critical discomfort with referring to a young girl's recitation of poetry as overtly "sexual," it may be difficult to see what that pliable term is doing. I am interested in the erotic not as a more delicate way of discussing children's relation to sex, but as a way to focus on certain qualities that may accompany sex but are also seen to be present elsewhere. Georges Bataille establishes eroticism as concerned with inner life, and fundamentally with the loss of self through transgression, the violation of taboo.[28] I do not maintain the specificity of what for Bataille constitutes taboo, but the idea of transgression as crossing out of the self is helpful for thinking about Leticia's experiences and about the scientific discourse on materiality that made the limits of the self questionable to begin with. Chacel, in "Esquema de los problemas prácticos y actuales del amor" touches on the question of *eros* in an argument about the possible differences between the sexes

28 See Georges Bataille, *Erotism: Death and Sensuality*, trans. Mary Dalwood (San Francisco: City Light Books, 1986), 31.

and their role in cultural and intellectual life.[29] While her argument, with frequent references to Max Scheler and Georg Simmel, attempts to explain a wide array of social and cultural phenomena—and explain away erroneous ideas about the differences between men and women and their intellectual, psycho-social lives—the essay also suggests how we might read the erotic as deeply embedded in the question of being: "[S]iendo el problema del eros consustancial del problema del ser, sólo aquellas teorías que se ocupen de éste en su más estricto y riguroso sentido metafísico, tendrán con aquél legítimo parentesco" (As the problem of eros and the problem of being are consubstantial, only those theories that address the latter in its strictest and more rigorous metaphysical sense will have any meaningful tie to the former) (Chacel, "Esquema" 131).[30] This framing of the subject, and Chacel's connection of the erotic to the intellectual, psychological, and social experiences of men and women, suggest that we might read *Memorias* as taking up the imbrication of eroticism with other forms of affective life.

Audre Lorde, in "Uses of the Erotic: The Erotic as Power," distinguishes between the "superficially erotic," seemingly aligned with the pornographic, and the erotic as "that power which rises from our deepest and nonrational knowledge."[31] The erotic for Lorde is a fullness of experience that can imbue our work, despite the attempts of capitalism to undo that experience, and also a "measure between the beginnings of our sense of self and the chaos of our strongest feelings" (54). I would relate that "chaos of strong feelings" to another aspect of Lorde's erotic, which is "sharing deeply any pursuit

29 See Chacel, "Esquema de los probelmas prácticos y actuales del amor," *Revista de Occidente* 31, no. 92 (1931): 129–80. The publication of such an article by a woman was in itself an oddity and a sign of Chacel's own strangeness within male-dominated intellectual circles: Shirley Mangini points out that with the essay, the author "enter[ed] into a dialogue [on the question of *eros*] that had previously been sustained in *Revista de Occidente* by men only" (Mangini, "Women, Eros, and Culture: The Essays of Rosa Chacel," in *Spanish Woman Writers and the Essay: Gender, Politics, and the Self*, ed. Kathleen M. Glenn and Mercedes Mazquiarán de Rodríguez [Columbia: University of Missouri Press, 1998], 129).

30 The continuation of this same passage demonstrates her distain for much contemporary theorizing on the subject: "mientras la balumba de tendencias social psicológicomorales llenas de menudas concomitancias con que en general se le acomete, formará sólo la falsa y efímera norma que constituye la desorientación y desconcierto íntimo de nuestra época" (while the bulk of social-psychological-moral trends, full of the attendant trivialities that tend to overtake it, will only lead to the false and fleeting standards that constitute the innermost disorientation and disconcertion of our era) (Chacel, "Esquema" 131).

31 Audre Lorde, "Uses of the Erotic: The Erotic as Power," in *Sister Outsider: Essays and Speeches* (Berkeley, CA: Crossing Press, 1984), 53.

with another person," particularly sharing joy (56). Looking away from the erotic, misusing it, corralling it into prescribed arenas and experiences is a misuse of feeling and leads to our using one another rather than sharing joy and feeling across our differences (see Lorde 59). From Lorde's evocative and broad descriptions of the erotic, I would like to pick up on the erotic as affect, as sharing, and as nonrational knowledge: all potential ways of crossing out of the self.[32] The confusion of the particles that make up nature and the chaos of feelings that make up the psycho-social world both find a place in my reading of *Memorias* as a text on the possibilities of the non-narrative, even nonsignifying interactions—dually affective and material—that create a self that is gendered strangely. *Memorias* is also a story of a young person coming to understand how society codifies her feelings and experiences, and it may be that childhood itself is a time when the openness of erotic possibility, which is to be quelled and translated into sexual and gendered categories, is more highly visible.

Making sense

Both scientific rethinkings of materiality and Chacel's rethinking of little girl-ness through Leticia might be understood as participating in a shift in sense making supported by aesthetic, linguistic, and scientific innovations. That is to say, a change in technical proceedings for understanding and representing or narrating to ourselves what we perceive, and a related, though not necessarily directly translated, shift in how such conclusions are absorbed into public consciousness so as to inform "common sense" interpretations of the world—how, by default, we collectively make sense of what we perceive and feel. Importantly, Chacel's "not a little girl" does not manifest these changing intellectual currents as divorced from lived experience. Rather, Leticia demonstrates just how regimes of perception, affect, interpretation, and individual bodily incorporation are vitally intertwined in daily life. This is not to say that such regimes could be lifted to reveal an underlying flow of affect as pure potential not yet channeled, formed, and actualized. It instead suggests that the sense making that goes into shaping how we feel—how we feel like women or like little girls, or not—is in flux. And the strangeness, unease, and discomfort registered by Leticia's unusual narration suggests the possibility of feeling or sensing otherwise while operating within fairly strict aesthetic or gendered boundaries: it will be the deft tailoring of a little girl's dress that leads to one of the most unsettling and erotic moments of the book, and to the novel's uncertain denouement.

32 For an exploration of affect as interpersonal, see Brian Massumi, *The Politics of Affect* (Cambridge: Polity, 2015).

We may be able to see aesthetic production, particularly writing, as close to the experience of gender in that an individual is trapped by the confines of a sign system but feels and experiences outside of it. Both scientific investigation and linguistic production are structured around the inaccessibility of direct knowledge or perfect meaning with the appearance of boring toward it. If science writing in the first half of the twentieth century was, like Reichenbach's, increasingly showing just how indirect and imperfect our perception of the world and our representation of it were, we might see modernist novels as registering both the attempt at expressing lived experience and the creativity and possibility of change that inhered in the distance between language and experience.

The question of gender, particularly childhood gender, as felt experience in *Memorias*—what it means to feel like or not feel like a little girl—raises questions of how feelings get into our bodies from outside stimuli and how those feelings are understood as gendered or sexed. How are moments of physical contact with, or observation and recognition of, material objects caught up in the net of femininities and masculinities? How are they coded as erotic, sexual, or gendered? The intersection of materiality and gender need not necessarily have to do with sex and its location(s) in or on the body.[33] Scientific discourses from the first half of the twentieth century introduce their own complexities by determining sex according to a host of factors including genitalia, secondary sex characteristics, hormones, social behaviors, and eventually chromosomal sex. Yet I would like to think about the materiality of gender as also about meaningfully translating countless interactions with the material world—everything from clothing, to animals, to food—into a gendered experience.[34]

33 Arthur Kroker suggests it is not useful to talk about a single body and proposes instead "body drift," "the fact that we no longer inhabit *a* body in any meaningful sense of the term but rather occupy a multiplicity of bodies—imaginary, sexualized, disciplined, gendered, laboring, technologically augmented bodies. Moreover, the codes governing behavior across this multiplicity of bodies have no real stability but are themselves in drift—random, fluctuating, changing" (*Body Drift: Butler, Hayles, Haraway* [Minneapolis: University of Minnesota Press, 2012], 2). I would argue that this multiplicity of bodies is nothing new and that the changing codes of shifting bodies are all experienced simultaneously. Here, I center the overlapping and interacting "imaginary, sexualized, disciplined, gendered, laboring, [and] technologically augmented bodies" around the axis of materiality.

34 N. Katherine Hayles writes on the on the way we interact with objects by responding to their relevant "allure" ("Speculative Aesthetics," *Speculations: A Journal of Speculative Realism* 5 [2014]: 172). Both this and Jakob von Uexküll's take, discussed in chapter 3, on how species are attuned to the characteristics important for their survival, making objects in nature different for each species, may be useful methods

In another respect, *Memorias* asks how to testify to those things that would seem imperceptible and immaterial—affects, feelings, and desires—and yet have material results. The potential for imperceptible things (such as molecules) to have effects perceptible to our senses is an area of attention for science writers and nonspecialist authors alike. It is one thing to say that a certain dress reinforces gender norms, but how should we think about a dress—as in Chacel's novel—that suddenly seems silly (the dark green plaid Leticia dons to visit Daniel for her first lesson) or one with the sleeves pushed up for more evocative poetic gestures (the altered first communion dress) that seems to trigger a shift in a relationship? The unabating descriptions of that sort of physicality in *Memorias* underscore the inconclusive or uncertain but fundamental and foundational nature of each brush with the physical world.[35]

The narration of the novel and its attention to affective and material details leads the reader away from metaphor as the primary template for making sense of things. The things we encounter in the novel are not symbolic objects but part and parcel of a fuzzy psychological realm indistinct from the corporeal one. This mode of sense making is instructive here: in addition to looking at scientific writing that employs metaphor when describing molecular materiality—recall the panicle of elderberries—we should pay attention to scientific discourse that is difficult to understand literally and yet is not exactly metaphorical (discourse that concerns the souls of atoms and psychic lives of cells, among other apparent personifications). Slippages that seem to break down disciplinary boundaries in this way can help us understand science writing as part of the milieu in which the construction of gender takes place—just as medico-legal discourse is often seen to be influential—not just because science writing is sometimes about sex and gender, but because as a discourse it suggests particular and novel ways of trafficking in things, feelings, and unstable linguistic signs.

Questions about what signifies gender and how those signifiers allow communication on the topic of gender, and structure gendered experience, dovetail with Leticia's confusion about how the adults around her make

for reading the multiple ways that humans interact with their surroundings, variously attentive to what they need or what they want.

35 I have not rigorously distinguished between materiality and physicality, though Hayles's distinction between the two may be useful to keep in mind for the attention it draws to the limits of our interactions with objects: "physicality," for Hayles, is "similar to an object's essence; potentially infinite, it is unknowable in its totality"; "materiality" is defined by "the physical qualities that present themselves to us" (172). According to such distinctions, the inconclusive nature of physicality might have to do with the inaccessible experience of the unbounded totality of physicality that is present and offers the potential for a different material interaction.

meaning. She realizes that those around her employ double meanings that render significant, rather than senseless, expressions such as the one exchanged by relatives who say that her father went to get himself killed by the Moors: "Cuando yo preguntaba, era un alzarse de hombros, un mover de cabeza con lo que me respondían, y yo sentía vergüenza, no sé si por mi padre o si por mí, por no entender, por no dar en el quid de aquello que no querían explicarme" (When I would ask, they would reply with a shrug of their shoulders or a movement of their heads, and I felt ashamed—I'm not sure if for my father or for myself—for not understanding, for not getting to the essence of what they didn't want to explain to me) (Chacel, *Memorias* 12). She could understand that her father might want to die, but certainly not in such a strange and specific way; moreover, she cannot understand the tone in which the comment is tossed around among her relatives. Her inability to grasp their meaning creates a sense of estrangement but also shame. Later she sits at the dinner table at Christmas surrounded by adults as their conversation goes over her head and she cannot figure out if they are discussing real people or fiction (see Chacel, *Memorias* 72–73). But Leticia's narration does not just express a child's frustration with adult communication—though that alone might be enough to direct us to look for other ways in which she makes sense of the world: the novel is made up of myriad details that the adult reader is similarly hard-pressed to translate into narrative. This is the flow of fleeting gestures, glances, and inflections that Leticia tracks assiduously in an *inaudito* flow of narrative material because she senses their role in creating her unheard-of way of being.

Memorias offers insight into the materiality of gender and suggests a materiality of meaning while eschewing symbolism, metaphor, and even, in some places, narrative. Understanding the ways that meaning is made in the novel is important not only for working through the implications for Leticia's inaudito gender but also because it serves as a potential model for meaning making through the scientific–literary pairings I pose in this project. While Leticia does not always understand adult conversation, stymied by its figurative language or esoteric allusions, she does sense some of the feelings that are being passed through it and the relations it develops. In sketching out the scientific ideas that permeated the popular imagination in the first decades of the twentieth century, I do not intend to propose them as metaphors or narrative keys but rather as currents of understanding and feeling that shaped the experience of everyday life. *Memorias* suggests some ways in which that can happen.

If Leticia's gender is indeed depicted as somehow unheard of or unspeakable, and I am suggesting that a fundamental aspect of gender is its non-narrative or unnarratable quality, scientific discourse also depicts

the physical world in a way that breaks down apparent narratives, such as those concerning the limits of bodies or the divisions between living organisms and inanimate objects. We see instead segments of experience, and of the world, that do not have predetermined or fixed forms—that carry information but not fixed meaning.[36] Some unformed potential or other ways of being, acting, and feeling among others lingers in the flow of experience that Leticia transmits as her narration tries to evoke something that can be sensed, if only by her not-yet-twelve-year-old self, but not captured in a fixed form. She brings into focus the ways that things apparently distinct and removed from our bodies—a blanket she plans to purchase as a gift, puppies she sees being drowned—can construct and make us (Chacel, *Memorias* 62, 77). Scientists, trying to communicate to the lay public the nature of matter, again and again raised the idea that apparently clearly delineated bodies and entities are made up of smaller—molecular or atomic—parts that open up those entities to existing and signifying in a different way.

Observation and admiration: the matter of affect and relation

Leticia lives largely in a world of adults. Her mother absent or dead, she lives with her father, invalided in the colonial war in Africa, and aunt. Before being sent to school "a que aprendiese a ser niña," she is tutored by Margarita Velayos: "Cada vez que dábamos lección yo observaba su traje sastre, su sencillez, su aire varonil y pensaba: cuando yo sea como ella…" (Every time we had a lesson, I would observe her tailored suit, her simplicity, her masculine air, and I would think: when I'm like her…) (Chacel, *Memorias* 18, 51). Leticia seems to seek in adulthood a style of being that does not necessarily fit a gender binary. She relates details of her tutor's and teacher's actions that take on surprising importance. When the tutor reappears toward the end of the novel, Leticia's narration emphasizes her blend of masculine and feminine features: "[A]l mismo tiempo que [Margarita Velayos] hacía aquel ademán varonil [al tomar su copa de coñac], su cabeza tomaba una actitud tan delicada como la de una virgen" (Just as she [Margarita Velayos] made that masculine gesture [of drinking her glass of cognac], she inclined her head as delicately as a virgin) (Chacel, *Memorias* 126). She forms a special attachment to her schoolteacher upon recognizing her skill in embroidery,

36 Gillian Beer and others have explored this idea as the linguistic mirror of a scientific idea, as in Virginia Woolf's *The Waves*. See Beer, "Wave Theory and the Rise of Literary Modernism," in *Open Fields: Science in Cultural Encounter* (Oxford: Clarendon Press, 1996), 295–320.

and eventually will form similarly intense bonds with Luisa and Daniel.[37] She relates her response to the first lesson with Daniel, the archivist, as follows: "Eso era lo que yo llamaba estar en mi elemento: tener algo que admirar" (That's what I called being in my element: having something to admire) (Chacel, *Memorias* 48). It is this state of admiration, one that eventually falters with her other teachers, that she will try to sustain with Daniel. We may read this admiration as a way of observing some extraordinary or startling aspect of another person. Observation is simultaneously a mode of relation—recall how scientists' insights into new ways of perceiving the world were accompanied by suggestions of new ways of understanding ourselves in relation to it—and Leticia's admiration always succeeds at inviting the observed and admired subject to participate with her. It is an erotic admiration in Lorde's sense: a chaos of shared feelings. Leticia will find that others' ways of looking at her produce similarly strong effects.

Leticia recalls that one of the nuns at her school judges her using the same words as she does for another student—a girl who, "[e]n la hora de la labor se iba a un rincón y no daba una puntada: lamía la pared" (when it came time to work she would go to a corner and wouldn't make stitch: she'd lick the wall) (Chacel, *Memorias* 19). Upon reflection, Leticia declares that, despite her fears to the contrary, she is nothing like this maladapted girl and that the judgment passed by her teacher was simply cruel and her own willingness to see a similarity with that other child was "un deseo de castigo" (a desire for punishment) (Chacel, *Memorias* 18). And yet, that initial impulse to recall the nun's comment linking the wall-licker to herself may in fact point to a shared strain of strangeness running through the two young girls: a relationship with the material world that is markedly uncommon and that does not respect commonly drawn boundaries between bodies and objects nor acceptable human behavior at those frontiers.

37 Some might fault these unlikely role models, and the effective absence of parenting, for Leticia's violent experience. Indeed, at the conclusion of the novel, Leticia's relatives comment that living in that environment (with her mother gone and her father seemingly suffering from depression and alcoholism), some kind of crack-up was bound to happen. We might instead understand growing up as a process of learning, in which desires and attachments are prescribed and proscribed by society (see, for example, Judith Butler's *Gender Trouble: Feminism and the Subversion of Identity* [New York: Routledge, 1999]; and Butler, *The Psychic Life of Power: Theories in Subjection* [Stanford: Stanford University Press, 1997]). This novel is in some ways a case study of what happens when a regimen of proscription and prescription is not firmly in place. What does it mean for a desire to be prohibited, and how does one know that it is? Leticia, despite sensing herself to be different, clearly does not quite know.

More astute than her classmate, Leticia adeptly manipulates the affective-material world around her in at least two exemplary situations: in one, she buys Luisa a blanket as a Christmas present; in the other, she carefully prepares herself to recite a poem in public directed at Daniel. Leticia observes Luisa and imagines her feet wrapped in "esas mantas afelpadas que parecen de piel de leopardo" (these plush blankets that look like leopard skin), and she sets out to buy just that for the piano teacher (Chacel, *Memorias* 62). It marks a moment when her attentions are divided between Luisa and Daniel, and the two adults seem to compete for her affection. The gift leads Daniel to remark: "'Me parece que si tú fueras un caballerito tendrías el arte de hacer regalos a las damas, y me parece también que a ti te gustaría mucho algunas veces ser un caballerito'" ("It seems to me that if you were a young man you'd have quite a knack for giving presents to the young ladies, and it also seems to me that sometimes you'd very much like to be a young man") (Chacel, *Memorias* 74). Yet Leticia rejects the simplicity of this interpretation, and she presents the affective manipulation as one subtler than the seduction of a man's wife.

In another scene, leading to the novel's denouement, she recites a poem at a public event. In preparation for this public presentation, she alters her First Communion dress with elastic that will hold back the sleeves and facilitate the sweeping arm gestures she practices. This moment represents the height of her "seduction," and as she names the king al-Hamar, she feels Daniel's heart beating: "Y desde la tribuna misma, sentí latir su corazón. Esto no es sólo palabras: lo sentí. Por la misma razón que mis sentidos naturales estaban casi anulados; miraba y no veía" (And from the platform, I felt his heart beating. That's not just a turn of phrase: I felt it. For the same reason that my innate senses were nearly incapacitated; I was looking and I could not see) (Chacel, *Memorias* 132). The display seems to have an equally strong effect on Daniel, and when she leaves the stage he has left the room (see Chacel, *Memorias* 139). I will return to these moments of *ensueño* or *transportación*, which punctuate the novel. This one is unique because she has arranged things—what she wears, how she speaks, her gestures—to bring something about, even if she does not know exactly what. Precisely because she is a child narrating what should be a quotidian scene—memorizing a poem and dressing up for a public reading—and not an adult planning a scene of seduction, that our attention goes to the material details that create such extreme affective and relational shifts. Without the signifying codes of adulthood, we see the material divisions between bodies break down; the flow of objects, gestures, and body parts begins to resemble the interactions of atoms and molecules coming together in a multitude of ways to create new, unstable forms.

As evidenced by the remarkable effects she has on Luisa, Daniel, and others, Leticia's inaudito quality—the "esto que era yo" (that which I was)—is shaped by these interactions with the adults she lives among and the objects that transmit affect and significance among them. This transmission depends as much on observation, giving rise to nearly invisible connections, as on material collisions. Among the material and affective exchanges that come to define her is the following scene in which Leticia discusses Daniel's observation of her after she has seen a young woman drown a litter of puppies:

> Aunque ha pasado mucho tiempo, todavía no comprendo; tienen que pasar muchos años para que yo comprenda aquella mirada, y a veces querría que mi vida fuese larga para contemplarla toda la vida; a veces creo que por más que la contemple ya es inútil comprenderla.
>
> Alrededor de aquella mirada empezó a aparecer una sonrisa o más bien algo semejante a una sonrisa, que me exigía a mí sonreír. Era como si él estuviese viendo dentro de mis ojos el horror de lo que yo había visto. Parecía que él también estaba mirando algo monstruoso, algo que le inspirase un terror fuera de lo natural y, sin embargo, sonreía. (Chacel, *Memorias* 79)

> (Even though a long time has passed, I still don't understand it; many years will have to go by before I can understand that look, and I sometime wish that my life were long to contemplate it my whole life; I sometimes think that as much as I might contemplate it, I'll never understand it.
>
> Around his gaze a smile started to appear, or rather, something like a smile, that required me to smile. It was as though he were seeing in my eyes the horror of what I had seen. It seemed that he too was looking at something monstrous, something that filled him with an unnatural horror and, yet, he smiled.)

We can observe here the contagion of affect—the way Leticia seems to have taken on the horror of what she has seen, the way she feels Daniel's expression requiring her to smile, the play of exchanged glances. We also see that she is changed not just by the experience of observing a young woman drowning young animals—that horror captured in her eyes—but also by Daniel's catching sight of the way that experience has affected her. How he looks at and feels about her changes her. The experience and the feeling created by it become transmissible through an exchange of gazes that seems nearly palpable. Leticia is particularly attuned to the often imperceptible difference an observer makes on the scene—here, her own growing up, being

formed. We can recall the observer effect and the misapprehension that the observer's intervention is purely an effect of the mind when it is in fact a material one. In the novel, observation is not passive but rather is an action that intertwines the observer and the observed—or reveals the connection or relation already in formation between them.

The queer childhood of a chica rara: not a little girl

One of the benefits of the indetermination, uncertainty, and illegibility of the novel's aesthetic and affective plot can be seen in the developments in criticism that reads the Daniel–Leticia–Luisa triangle. Rosalía Cornejo Parriego underscores Leticia's "supuesta identidad masculina" (supposedly masculine identity) as the child's expressed desire, though in the passage that she cites, the narrator does not pronounce, as Cornejo Parriego suggests, that she is a boy, but instead that she is not a girl ("yo no era una niña" [Chacel, *Memorias* 18]).[38] This line of analysis—winding through reflections on the eroticism of female friendships and the instability of the gender binary—is reflective of most of the writing on *Memorias* that ventures beyond a reading of the novel as a simple but strange tale of a young girl's seduction by her teacher (or vice versa). For Cornejo Parriego, Daniel represents an interruption of the female friendship between Luisa and Leticia; his desires and perceptions are not strange but are rather the imposition of social order (see 73). He is seen to occupy the intellectual and masculine realm to which Leticia desires access while his wife is purely and richly corporeal. Given all that, she reads Leticia's seduction of her teacher as part of a plan of intellectual affirmation and vengeance on the gendered social roles that have kept her from it, with Leticia's true affection and love reserved for Luisa (see Cornejo Parriego 74). According to this line of thought, *Memorias* demonstrates Chacel's conviction that affection, eroticism, and desire not only flow through socially determined and culturally nameable channels but that attempts to live and think about gender and sexual possibilities outside of those confines inevitably fail (see Cornejo Parriego 80). I would rather not judge whether Leticia's acts and narration successfully pull off the trick of nonnormative gender identity and dodge compulsory heterosexuality—her very survival as a queer child at the book's end seems unstable—and instead focus on her yearnings and exalted feelings as evidence of a space where the boundaries of sexuality, eroticism, and friendship dissolve into undefined currents that run between bodies.

Citing Chacel's intentions to write the account of a young girl's seduction of an older man, Katherine Murphy comes out in the affirmative in the

38 Rosalia Cornejo Parriego, *Entre mujeres: Política de la amistad y el deseo en la narrativa española contemporánea* (Madrid: Biblioteca Nueva, 2007), 72.

debate over whether or not Leticia physically desires Daniel, but, not unlike Cornejo Parriego, she also insists that the central importance lies with the protagonist's desire to conquer the masculine intellectual realm (see Murphy 60). For Murphy, Leticia's feelings toward Luisa are those directed to a mother figure and her feelings of union with Luisa are aimed at experiencing the woman's desire for her husband, though she also recognizes the same-sex eroticism in this relationship (see Murphy 61, 65). The young girl's sensual experience of the world is thus decoded as heterosexual desire (see Murphy 62). I argue that the text's insistence on not making such pronouncements should steer us toward readings that are open to desire among the three main characters without determining a particular hierarchy. What, then, is Leticia's gendered experience as not-a-little-girl bouncing between competitive affections of an adult couple?

Kathryn Bond Stockton, in *The Queer Child, or Growing Sideways in the Twentieth Century*, reflects on the creation of childhood as a state queered by, above all, the purported innocence we assign to it.[39] Rather than the destruction of the child via Lee Edelman's theorization of it, she seeks what is happening within the suspended space of childhood that is not, to our minds, childlike. Throughout the years that young people age, learn from their surroundings, and absorb knowledge while they are still deemed children, their engagement with what society holds to be "adult" knowledge and experiences can spook grown-ups. By reading the delays, the necessarily sideways motion, required by the delay represented by not yet "growing up" but instead inhabiting childhood space and time, she brings into focus the sexuality, aggression, and secrecy that we occult in children, queering them with the requirement of innocence, which supposedly restricts a range of feelings and experiences to adulthood, postinnocence. Stockton points out not just the untenability of such a pristine state but also the twisted outcomes of our desire for it. What we protect children from is what we fear in them. Leticia remarks on "lo que la gente llama inocencia" (what people call innocence): "¡Qué asco! Nunca me cansaré de decir el asco que me da esta enfermedad que es la infancia" (How disgusting! I'll never tire of saying how much it disgusts me this sickness that is childhood) (Chacel, *Memorias* 141). The queerness of the imposition of innocence shows up vividly in Leticia; rather than conforming neatly to her childish form, bland childlike things seem harshly at odds with the secrecy, aggression, and eroticism that we will, later in this chapter, see flowing naturally through her experience of the world. Though critics struggle with the seemingly unchildlike voice

39 See Kathryn Bond Stockton, *The Queer Child, or Growing Sideways in the Twentieth Century* (Durham, NC: Duke University Press, 2009).

of the young narrator, judging it to be either a flaw or a calculated—if awkward—choice by Chacel, we might instead see that voice as the literary manifestation of a sort of experience that is indeed available to children, even if the sophistication of the language may not be. The desire for a simplified childish voice may not be so different from our desire for a simple, innocent childhood. In *Memorias*, we instead witness the psychic torsion resulting from that demand for innocence. Stockton's account of queer childhood underscores how children incorporate—corporeally, but also psychically and emotionally—external narratives about themselves. That process of incorporation is not straightforward; instead, those narratives or narrative fragments that work their way into the lives of children encounter numerous obstacles in the form of lived experience that contradicts or complicates them. I argue that this twisted, queered path of incorporation does not end when adulthood commences but might be heightened or more highly visible in children.

Leticia's voice and tone are not only striking because they might seem out of place in such a young narrator: rather, while Chacel constructs a clear plot arc, both the style and the content of the writing lend the text an avant-garde, non-narrative quality. Her first novel, *Estación: Ida y vuelta* (1930), is generally cited as exemplifying the tenets of avant-garde writing and reflecting her immersion in the vanguard Spanish milieu made possible by her close working relationship with José Ortega y Gasset (see Mateo 25). Any nontraditional qualities in *Memorias*, on the other hand, are often put down to an awkward attempt to have a young girl voice sophisticated ideas while maintaining some markers of childishness. I argue that *Memorias* carried out an experiment in a non-narrative sort of sense making, which permeates its narration and plot structure. As Leticia takes on the common sense of the adult world, revealing the nonsensical, complex, and contradictory nature of adult language and actions, the novel simultaneously puts forth an alternative perspective on sense making, one that edges around or works through a linguistic system to reveal that sense is made through an accretion of words, objects, and gestures that provoke sensorial and emotional feelings.[40] We might think of *Memorias* as approaching language not as a sign system but as shiftable patterns created by this accretion. This approach brings organic and inorganic things onto one plane, and in the

40 Similarly focused on constituent parts rather than wholes, Elizabeth Grosz suggests that we think of oppressions such as racism or sexism not as systems whose parts make sense in relation to a larger structure but as patterns of acts, which we might more readily be able to shift through new and varied acts than through externally imposed changes to social structures. *Becoming Undone: Darwinian Reflections on Life, Politics, and Art* (Durham, NC: Duke University Press, 2011).

novel we can begin to see the human body, objects, even words participating in material formations, coming together and apart in new formations as scientists told us the stuff of the universe, us included, would.

"Con mis cinco sentidos, entraba allí"

Some of the most evocative passages reflective of how Leticia not only observes the flow of people and things around her but feels herself to be relating them are those describing her experience of transportación or ensueño. We can read these passages while remembering the view of the world presented by contemporary science, in which humans are described as being made up of atoms, and atoms are also envisioned as having souls and meeting up and combining alchemically to create new forms. When Leticia first narrates her experience of this transportation it is alongside a recumbent Christ in church: "Siempre me lo imaginaba, siempre me concentraba en la idea de que andaba por allí dentro, de que me encogía para caber en el pequeño espacio que quedaba al lado de su cuerpo, pero algunas veces no era imaginar: enteramente, con mis cinco sentidos, entraba allí" (I always imagined it, I always concentrated on the idea that I was walking around there inside, that I curled up to fit in the small space next to his body, but sometimes it wasn't my imagination: completely, with my five senses, I entered that space) (Chacel, *Memorias* 17). Critics have described this moment and similar ones as a sort of mystical transportation or mere fantasy.[41] I want to propose a way of reading Leticia's flights in a nonmystical register; I argue that, instead, the material permeability she describes points to the constantly reworked boundaries between individuals that are anything but rigid to her young eye. Recall Reichenbach's description of the surface of a lake as a "vague frontier zone": this is the sort of ill-defined border that Leticia is able to slip into. This is not to dismiss the eroticism or sexual charge of Leticia's relationships with Daniel and Luisa. Rather, it is to complicate the way that sexuality comes to be a bounded term and one that defines little girlhood, or, perhaps, its limits.

In a later scene that follows the pattern of her experience with the recumbent Christ, Leticia observes the sunlight through Daniel's shirt and loses herself "en aquel clima, entre la luz de la zona aquella que me parecía a veces una gruta, a veces una selva" (in that realm, in the light of that region that sometimes seemed to me to be a cavern, sometimes a

41 See, for example: Jesús Pérez-Magallón, "Leticia Valle o la indeterminación genérica," *Anales de la Literatura Española Contemporánea* 28, no. 1 (2003): 139–59; Katherine Murphy, "Monstrosity and the Modernist Consciousness: Pío Baroja versus Rosa Chacel," *Anales de la Literatura Española Contemporánea* 35, no. 1 (2010): 141–75.

jungle) (Chacel, *Memorias* 81–82). As with the scene in the church, Leticia imagines a vivid physical experience of delving into a minute and intimate space that encloses her; here the experience is transformed by this shift in scale into a vast wilderness. The visual description is microscope-like, but the affective conclusion is much more radical. Later, she compares this experience with simple observation in a scene that draws out the relational or erotic possibilities of this way of sensing the world—this time entering into Luisa's body as Daniel lifts his wife into bed after she has been injured:

> Yo había observado todo el tiempo que duró la maniobra, pero ¿cómo puedo decir que lo observé? Si lo hubiese observado, ¿quién podría darme crédito? ¿Es que yo voy a considerar que mi observación queda tan fuera de lo común, o que mis dotes son tan excepcionales que sobrepasan infaliblemente las de los demás seres humanos? No, yo no observé nada: yo me transporté —pues si acaso poseo algún don excepcional es ése únicamente—, me uní, me identifiqué con Luisa en aquel momento, recorrí su alma y sus cinco sentidos, como se recorre y se revisa una casa que nos es querida. Vi todo lo que había en su pensamiento, percibí lo que sentían sus manos, sentí el sentimiento que se imprimía en su voz. (Chacel, *Memorias* 147)

> I had observed the whole length of the maneuver, but, how can I say that I observed it? If I had observed it, who would believe me? Can I suppose that what I observed was so out of the ordinary or that my gifts are so exceptional that they are infallible and surpass those of other human beings? No, I didn't observe anything: I was transported—for if I have any exceptional gift it's only that—I joined with Luisa, I identified with her in that moment, I traversed her soul and her five senses, just as we walk through and examine a house that is dear to us. I saw everything in her thoughts, I perceived what her hands felt, I sensed the feeling etched in her voice.

She refers directly to Luisa's five senses, choosing verbs of sense perception: *ver*, *percibir*, *sentir*. The description of traveling through Luisa's soul and senses like a house casts this moment as a physical one. Leticia rejects the idea that she might have uncommonly sharp powers of observation and instead classes this experience as one of transportation, one that allows her to know what another person feels, senses, and thinks in a union in which the limits of the self fall away. But though she declares herself not particularly apt at observation—she wants to emphasize instead her experience of transportation and identification—I would argue that her ability to sense and relate these moments as she does is in fact an uncommon

quality of observation, or more broadly of perception. Furthermore, she is able to recognize these moments as fitting into the array of her strangeness that triggered the story she is telling. The narrative principle of the book might be said to be just that: the young protagonist is able to sense which observations, experiences, and feelings structure the short history of her strangeness, and she relates that pattern to us, arguing that, taken as a whole, it leads to the inevitable and painful outcome at the novel's end. She argues as much in her final reflections when she says: "Describí todos mis sentimientos sublimes hasta que desembocaron en aquello, porque para eso lo hice: para que se viese dónde fueron a parar" (I described all of my sublime feelings to the point where they gave way to all that, because that's why I did it: so as to show what they led to) (Chacel, *Memorias* 172).

Not all that is inaudito of Leticia's young personhood seems immediately related to her gender. The strangeness she herself notes has generally to do with her sense perception of the world around her and her ways of perceiving meaning and significance. Meaning making happens in the way that Luisa addresses her—"Adiós, querida"—but also in the way Daniel looks at her or in observing the act of drowning puppies in a river (Chacel, *Memorias* 77). Leticia's narration calls attention to the often overlooked ways in which our relations with others and our understanding of ourselves are constructed through minuscule gestures, shifts in tone, and seemingly irrelevant actions. I suggest that her moments of ensueño or transportación manifest the strength of such encounters and their potential for blurring lines that supposedly delimit the self. Her experience alongside the recumbent Christ, within the folds of Daniel's shirt, or inside Luisa's senses and soul reveals a heightened awareness of our psycho-social-affective selves' being made up of overlapping and interacting influences.

Finally, I ask how we can relate Leticia's moments of transportation to the other strangeness that she reports, as when she says "todo lo mío era inaudito," "yo no era una niña," and refers to "esto que era yo" (Chacel, *Memorias* 7, 18, 51). What do these interpenetrations, that would have us reconsider the limits of the body, have to do with Leticia's negotiation of gender and of eroticism? Might Leticia be registering with her senses a state of being that is in some way atomic, or particulate? The science guides our attention to the body, to the material, away from readings of gendered subjectivity or erotic/sexual encounters that exist only in a distinct psychological realm. The extreme nature of Leticia's transportation, its materiality, offers a radical openness, not to an uncircumscribed, open potential, but instead to what she finds in the world around her—Luisa's diffuse eroticism and friendship, and Daniel's more socially sanctioned and violent paternalism and sexuality. Her experience of being a materially open psycho-corporeal subject is not just marked as

impossible but as both sexual and taboo. Being a little girl means feeling certain feelings as sexual, not as something else that remains undefined, and keeping your subjectivity to yourself.

When Leticia's cousin Adriana dances both parts, male and female, of a pavane, Chacel presents Leticia's enthusiasm and Luisa's comprehension of the significance of the delicate aesthetic scene. Adriana dances alone, playing both the part of the *caballerito* and of the *dama* who dance first separately and then together: "Después se cogían de la mano y bailaban la pavana. La bailaron los dos porque se sustituían con tal ligereza que la imagen del uno no se borraba antes de que el otro estuviese presente" (Afterward they joined hands and danced the pavane. There were two of them dancing it because they replaced one another so nimbly that the image of one was not yet erased when the other appeared) (Chacel, *Memorias* 93). Leticia is captivated. Her cousin's dance breaks down the apparently solidity of her body to reveal in its wake that it can contain both parts of the dance, and Leticia is delighted to see something that is not physically present. Adriana's scene is the incarnation of Leticia's mode of viewing the world in which she is able to see the porosity of individuals and their interplay and exchange. It is this scene that Leticia feels passionately about, whereas she rejects Daniel's estimation that she would like to be a little gentleman. "Sólo doña Luisa había comprendido," Leticia reflects, "¡Qué misterio! Tengo la seguridad de que si yo hubiese explicado lo que significaba para mí Adriana, no sería ella la que mejor pudiera comprenderlo, y sin embargo le había bastado mirarme la cara unas cuantas veces cuando yo le apretaba el brazo en el comedor" (Only doña Luisa had understood. What a mystery! I am sure that if I had explained what Adriana meant to me, she would not be the person to best understand it, and yet, she had only to glance at my face a few times while I squeezed her arm in the dining room) (Chacel, *Memorias* 100–101). Just as she declares herself not to be a little girl without therefore being a little boy, Leticia's feelings and actions toward Luisa do not position her to replace Daniel, as he seems to worry she might. Instead, she is attracted to the fleeting figures of the dance, to the traces they leave behind in the air, and to the way they clasp hands, making apparent solidity questionable and of minor importance. Her emotion over Adriana's dance can only be communicated with a glance and a squeeze of Luisa's arm: any narrative of this materially open interplay of bodies would fall short.

The end

If this dance scene contains the rejection of narrative paired with an unusual gendered component and the possibility of material openness, the

elided scene of violence that is read as Leticia's rape represents a moment in which the adult world—and the scholarly world—has stepped in to force a single interpretation of her manipulation of erotic flows. In that scene, she describes only her observation of Daniel, who has just called her an "artist," a sound in his throat, and then: "[E]n ese momento, yo me hundí en una inmensidad de miseria, oscura como el infierno e ilimitada como el cielo. Pero es inútil querer decir cómo fue, más bien diría que sentí de pronto que todo iba a dejar de ser" (In that moment, I sank into an immensity of misery, as dark as hell and unending as the heavens. But it's no use to describe what it was like, instead I'll say that I suddenly felt that everything was going to cease to exist) (Chacel, *Memorias* 161–62). Daniel leaves the room and then returns and says, "'¡Te voy a matar, te voy a matar!'" ("I'll kill you, I'll kill you!") (162). Leticia describes what she feels, and the violence in the text is registered as the sense that everything would stop being, stop existing as she knew it to exist. When critics read the break in the text as the outcome of a physical and mental trauma that was a perhaps unexpected effect of an otherwise willful seduction, the result is at odds with Leticia's nuanced experience of the world. This mode of observation is entirely unlike Leticia's own (in her "reading" of the pavane, for example), one that she sets out as vivid and capable of tracking feelings and influences events throughout the course of the novel. The gap in the narration, in all of its violence, must not be allowed to annul what has come before it, as simple as it might be for us to mirror Daniel's look of horror, in which Leticia sees society's horror reflected back at her. Leticia all along has insisted on telling this story of how she senses the world in order to explain it as the quality that would bring about this violent outcome.

If Leticia has revealed an alternative form of sense making, what might it be? Elisa Rosales considers the unheard-of quality that marks Leticia and her narration, contending that the term *inaudito* in *Memorias* takes on a double meaning: the more ordinary acceptation of something extraordinary and a way of describing the quotidian rhythms of life, those transactions with reality that generally go unexpressed.[42] These, as much as any secret or forbidden desire, are what move the narration of the novel. The unabating relation of small moments posits them not as symbols of or keys to understanding Leticia's affections, but as carriers of feelings that do not distinguish among modes of relation—sexual, intellectual, corporeal, affectionate, or filial. When scientists share their microscopic view of the material world, they are excited about the possibilities for connection,

42 Elisa Rosales, "*Memorias de Leticia Valle*: Rosa Chacel o el deletreo de lo inaudito," *Hispania* 83, no. 2 (2000): 222–31.

continuity, and new formations it presents. When Leticia observes the world around her and within her with a similar microscopic eye, we get a sense that feelings and bodies could be organized differently. But the adults in her world cannot conceive of that, and as her readers we are hard pressed to fully imagine it, to grasp the importance of the molecular details that she recounts, which all add up to a novel that is rather strange.

That sense of the importance of the imperceptible structures the novel from the very beginning: it opens with Leticia's observation of something she cannot see: the growth of the ivy outside of her window. "Su vida es tan lenta" (Its life is so slow)—much like Leticia's own (Chacel, *Memorias* 8). The plant and Leticia change constantly but imperceptibly. She concludes her story on the eve of her twelfth birthday with the words: "Miré la rama de hiedra que subía por el marco de la ventana y había crecido lo que yo tenía calculado" (I looked at the branch of ivy that climbed up the window frame and it had grown as much as I'd predicted) (Chacel, *Memorias* 174). This is both a tribute to Leticia's penetrative powers of observation and a comment that forecloses unexpected outcomes. Even the unseen follows predetermined routes, and new alchemic combinations and growths are unlikely to occur.

By the novel's end, only feeling confident that what she calls her "fuerza bruta" (brute force), "algo irracional, algo así como la salud" (something irrational, like health), remains, and convinced that she will never again feel anything like love, Leticia seems to condemn all of her previous feelings (Chacel, *Memorias* 172). The subtlety and vividness of her earlier observations and sentiments seem dulled into something almost threatening. She views herself as the outcome of her way of sensing the world. Her incongruous nature has been definitively declared to be not only incompatible with social norms but simply impossible: "[La tía] [r]epetía: 'Ya te lo dije yo desde un principio; aquello no podía ser, aquello era cosa de locos. Aquello no podía ser, no podía ser'. Y no se daban cuenta de que lo que no podía ser estaba detrás de la butaca" (My aunt kept repeating: "I told you from the beginning; it couldn't be, it was pure madness. It couldn't be, it couldn't be." And they didn't realize that that which couldn't be was behind the armchair) (Chacel, *Memorias* 173–74).

Chacel's novel explores how people relate, and how the consequences of events, movements, and configurations can be tracked. Physical things happen in the world that do not immediately seem connected to their end results, yet if Leticia possesses some power of seduction it is her ability to perceive those invisible lines and harness them: rolling up the sleeves of her dress while she recites a poem and then narrating that detail, among many others. In the imperceptible feelings and moves—those only made explicit

by Leticia and glimpsed fearfully by the adults—lies another way of being a little girl, or not one, configuring sexuality and gender. This approach to gender and sexuality is connected to a view of the world that understands its edges to be wavering and its solidity to be deceptive.

Leticia proposes another way of meaning or sense making, one which recognizes the affective and materially constitutive nature of countless daily interactions—the brush of skin against cloth, the dim glow of a blueish vein, the gaze that conveys horror and attraction, the sentiment conveyed by the cut of a suit or dress, the arm lifted just so in an expressive gesture, a kiss on the cheek, and so on. It is impossible to fully narrate such a particulate mode of existence, and being narrativized as a little girl is one way to restrict and manage meaning. Leticia's transportations thus describe an intersubjective state of being that unfolds even when it is not perceived—we are constantly made up of those people and things that surround us; in an atomic world, the borders between us and them waver and dissolve—and her inaudito flow of narration makes it clear that the process of confining gender and sexuality to recognized strains of feeling and acting—such as little girlhood—is a violent one.

Moreover, non-narrative communication takes place through material encounters that come to light if we understand bounded bodies, human and nonhuman, as related through atomic or vibratory organization; the nonsymbolic dress sleeves or nonmystical transport only make sense in a regime of non-narrative, affective sense that can emerge in a highly interrelated material world run through with invisible lines of (vibratory) communication and (atomic) similarity; the novel's unsexed eroticism and nonbinary gender are bolstered by the presence of a material and energetic world that is known to be in constant, uncertain, perhaps unmotivated flux where the question of which energies animate what matter within what, if any, limits is of fundamental importance.

In this reading, gender is the internalization of a regime of sense making that then shapes our affective and material interactions with the world. Leticia simultaneously refuses certain gender narratives and makes non-narrative fragments perceptible, which suggests a mutability akin to atomic or monist understandings of the world celebrated and disseminated by scientists. The felt experience of gender results from the internalization of material interactions with organic and inorganic bodies that have an affective valence. On the other hand, scientific imaginings of materiality make possible certain ways of thinking and feeling that reveal how gender (unlike, perhaps, gender roles) picks up on openness, the potential for change, new relations—which makes being a little girl an inherently strange, shifting, a-signifying or multiply signifying thing.

The importance of reading about these porous and constantly reproduced bodily boundaries in scientific texts is not that novelists can then narrate someone being anatomically or atomically fused to another body, sharing or swapping an arm or a brain: it is that readers could conceive of some version of that and begin to imagine and feel its potential effects. How bodies are organized and delimited is what determines how we treat other bodies, how we act and feel and react. In the case of Leticia, her trust in others as evidenced by how she places her psychosomatic self in their care, caring for them in turn, and her freedom to experiment with relationships and experiences, is betrayed by harsh social delimitations. And thanks to the very same knowledge of the possibilities of material-affective imbrication and relation and change, that betrayal turns back in on her own body—indistinct, as it is, from its surroundings—so that she is made to understand that she is the seducer, she has brought this on herself.