Feeling *Tender Buttons*
Gertrude Stein’s Haptic Poetics and the Science of Touch

Oakley Friedberg
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Oakley Dean Friedberg

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Primary Advisor: Ada Smailbegović, Ph.D.

Second Reader: William Warren, Ph.D.
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In my desiring perception I discover something like a _flesh_ of objects. My shirt rubs against my skin, and I feel it. What is ordinarily for me an object most remote becomes the immediately sensible; the warmth of air, the breath of wind, the rays of sunshine, _etc._; all are present to me in a certain way, as posited upon me without distance and revealing my flesh by means of their flesh.

Jean-Paul Sartre  
*Being and Nothingness* (1943)

Toasted susie is my ice-cream.

Gertrude Stein  
“Preciocilla” (1913)
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Introduction

Imagine you are touching a swath of velvet. As your hand makes contact, it actively explores this surface through tactile sensations. You learn about its smooth soft quality, but also the size and boundaries of the object, the angle in which it is draped, and where it exists in relation to your body. While you push against the bristles of fabric, a tension is created that causes them to push back against you. This complicates the distinction between touching and being touched.

This two-way experience in touching exemplifies truths about perception that go beyond the singular modality of touch. As philosopher of science Matthew Ratcliffe summarizes, “all perception is touch-like, the different perceptual modalities all share certain features, but these features are especially salient in the case of touch” (Ratcliffe, “Perception, Exploration, and the Primacy of Touch” 2). Unlike the other senses, which are more localized, the domain of touch is unique in that it does not have a distinct organ (i.e. eyes: vision; nose: olfaction; ears: audition; tongue: gustation). The perception of touch is instead driven by instances of contact with the body, posing an experience that blends properties of an object with sensations of the perceiver. For example, to feel that something is smooth is to observe a certain property of its surface, combined with the function of your hand moving without obstruction. This is therefore not a quality that preexists without an embodied subject. Touch exemplifies how sensory experience is always jointly constituted by subject and object. While this phenomenon is made particularly evident by touch, it is also true for all of the other sense modalities.

In her experimental book of poetry, Tender Buttons, the modernist writer Gertrude Stein writes about ordinary domestic objects, and her point of focus is often their textures. Stein does
not only describe a taxonomy of objects, but also one of different surfaces, paying attention to the ways in which objects are flat, round, wet, slimy, dusty, torn, cracked, and stitched. The initial example of velvet resonates with Stein’s observations about how objects interact with the body. Although she does not mention velvet, she does refer to other soft objects like silk and feathers. In “Lunch,” Stein writes, “That which shows a little beneath so that necessity is a silk under wear. That is best wet” (Tender Buttons 31). Stein conveys her experience of “Lunch,” by producing tactile effects for the reader through materialities of silkiness and wetness. In this poem, different sensations of slipperiness demonstrate the ways in which objects act upon us physically and subjectively. “Silk under wear” conveys how the tickling of silk on the skin is a sensation that is both somatic and sensual. Even the title of Stein’s collection reflects embodied problematics of touch. Buttons are tactile objects. They range from things we clasp and twist, in fastening garments, to ones that we press and flick, in operating an appliance. Like “silk under wear,” this title also signals ways in which Stein gestures toward a definition of objecthood that is not entirely separate from the perceiver. Expressing buttons as tender suggests how the surface of an object can be a kind of flesh, which can overlap with our own skin. A reading of “tender buttons” as fleshy objects conveys how touching challenges the notions about where our body ends and the object begins.

I am arguing that Stein develops a haptic poetics. By this, I mean that Stein’s writing explores the complex relations within experiences of touching and being touched. This reading addresses the ways in which texts produce affective dimensions through their attention to tactility. I am developing the term haptic poetics primarily based on the work of the queer and literary theorists Eve Kosofsky Sedgwick and Renu Bora. Although I am not working directly
with their perspectives, Laura Marks and Eva Hayward have been instrumental in outlining the ways in which studies of touch are involved in interpreting aesthetic works. In her discussion of images, Marks explains that haptic criticism is “mimetic” because “it presses up to the object and takes its shape…[the point is] to maintain a robust flow between sensuous closeness and symbolic differences” (Marks, Touch: Sensuous Theory and Multisensory Media xiii). Marks shows that an essential characteristic of haptic analysis lies in conjoining and blurring the margins between perceiver and object. Hayward considers important links between touch and other senses. This is articulated in her synesthetic notion of fingeryeyes, in reference to tentacles of coral: “To see, to feel, to sense, and to touch—“fingeryeyes”—slide into each other, making new prepositions of observation: seeing with tact; touching by eye; feeling from vision” (Hayward, FINGERYEYES: Impressions of Cup Corals 582). Hayward’s work on fingeryeyes provides an important platform for similar concepts I will advance, which also extend from the domain of touch into other sensory modalities.

Both Marks and Hayward emphasize a tactile-visual interconnectivity, however my reading of Stein through haptic poetics will distinguish ways that touch is coextensive with a range of sensations that includes sight, but also encompasses smell, taste, sound, motion, balance, and temperature. Additionally, I will explore how touch reveals sensory embodiment to always be modulating and modulated by affect. Sedgwick and Bora provide important insights about the ways in which feelings of pleasure and sexuality circulate affect through the body. In Touching Feeling: Affect, Pedagogy, Performativity, Sedgwick meditates upon the dynamic capacity through which touch intrinsically interweaves emotion:
“The title I’ve chosen for these essays, *Touching Feeling*, records the intuition that a particular intimacy seems to subsist. But the same double meaning, tactile plus emotional, is already there in the single word ‘touching’; equally it’s internal to the word ‘feeling.’ I am also encouraged in this association by the dubious epithet ‘touchy-feely,’ with its implication that even to talk about affect virtually amounts to cutaneous contact.” (Sedgwick, *Touching Feeling* 17)

This integration between internal feelings and sensations of the body fundamentally configures our relationships to objects. For example, Sedgwick and Bora consider how texture does not just comprise surface quality, but also *how* we want to interactively touch an object. In touching velvet, you might learn that you want to caress, rub, fondle, and pet this surface, which is different from the ways you would want to touch surfaces like glass, rubber, steel, or wood.

Questions of how desire, satisfaction, anxiety, and distress, are all wrapped up in the perception of material properties demonstrate the constitutive role that affect plays within embodied sensations. This complicated understanding of *feeling* is essential for reading Stein. As the literary critic Steven Meyer points out in *Irresistible Dictation: Gertrude Stein and the Correlations of Writing and Science*, for Stein, “Feeling and being are thus intimately connected, and it is this intimacy that the sentence details. A person’s feelings, for instance, do not just happen to exist but are the result of something that causes one to feel a certain way” (Meyer, 1

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1 For further theorizing on velvet textures, see Walter Benjamin’s writing on velvet and bourgeois desire in *The Arcades Project*. Freyja Hartzell offers a reading of this text that resonates with haptic criticism: “Fabric linings constituted boundaries between skin and ‘street clothes,’ enveloped the hard contours of furniture and padded the walls of private chambers, protecting their occupants from the sharp angles of public life in nineteenth-century Paris” (Hartzell, “The Velvet Touch: Fashion, Furniture, and the Fabric of the Interior” 53).
Irresistible Dictation 237). Stein uses poetic texts to open up and explore the robust channels between materiality and sensation, creating a kind of phenomenological felt space in writing.

The lens of haptic poetics moves across disciplinary lines as this literary focus on touch interfaces with empirical research on tactile and haptic perception. For example, the Steinian idea of questioning the borders between subject and object corresponds to the well-studied phenomenon of poking something with a stick, and then feeling that thing through the stick. Similarly, we do not only feel the glove that envelops our hand, but rather, we feel everything through this material medium. These parallels provide the opportunity to closely reflect upon Stein’s poetic framework of sensation alongside scientific models. The latter will clarify how each sense is made up of many sub-dimensions. For example, touch entails perceptions of texture, vibration, and spatial location, among others. Stein’s writing produces these different tactile effects for the reader, beckoning a reading that explores a productive confusion between active and passive relations of touch. Since literature contemplates multifaceted dimensions of subjective experience, it can inform a body of knowledge that has mostly been in the purview of the mind sciences. Literary writing can also balance traditional research’s difficulty to account for the internal dynamism of sensory experiences. In The Embodied Mind: Cognitive Science and Human Experience, Francisco Varela, Evan Thompson, and Eleanor Rosch offer a similar critique of contemporary cognitive science. They ask about the attitude of current research, “Are we not presupposing a static conception...that overlooks the rich detail of the inner structure of a cognitive system?” (Varela et al., The Embodied Mind 136). Literary works are fundamentally outfitted with descriptive tools for depicting these complex aspects of human experience. In conjunction with developments from the empirical mind sciences, a deeper consideration of
Gertrude Stein’s poetic descriptions of sensations, with a focus on touch, sheds an interdisciplinary light upon the project of understanding the nature of sensory experience.

Gertrude Stein, before becoming a poet and writer, studied and conducted psychological and neurophysiological research with some of the preeminent scientists of her time. In Part One, I will evaluate Stein’s early scholarship and eventual decision to abandon a career in pathological psychology. I will consider how her departure from the world of traditional science reflects a desire for an analytical space that can accommodate the visionary and creative explorations she ultimately takes up in experimental writing. This section will ground the philosophical frameworks that I will use to read Stein’s poetry, ranging from William James’ radical empiricism to contemporary cognitive phenomenology. These will establish a foundation for Part Two’s close exploration of tactility in *Tender Buttons*. I will turn to correspondences between Stein’s text and cutting edge studies focusing on touch, such as haptic intelligence and robotics, as well as theoretical considerations of the tactile relationship to affect and pleasure, as in fetish. Since Stein considers experience outside of the norms of research science, her writing provides opportunities to enrich a scientific understanding of perception and the mind, as well as ways to enhance the intellectual-theoretical scope within the emerging conversations of haptic criticism.
Part One:

Unfolding Stein’s Path to Creating

*Descriptive Simulations* of Experience

As we take, in fact, a general view of the wonderful stream of our consciousness, what strikes us first is this different pace of its parts. Like a bird’s life, it seems to be made of an alternation of flights and perchings.

William James, *The Principles of Psychology*
The Beginning and the End of the Medical Education of Gertrude Stein

Stein attended Radcliffe College from 1893 to 1897, where she showed remarkable promise as a member of William James’ research team at the Harvard Psychological Laboratory. Her close bond with James, the prominent philosopher and father of American psychology, emerged from her deep respect for his pioneering ideas about the mind. In an article in *The Crimson*, Alice P. Albright reports that in response to the question, “Is life worth living?” Stein answered, “Yes, a thousand times yes when the world still holds such spirits as Professor James.” James was also quite fond of Stein, and referred to her as “his most brilliant woman student.” Stein similarly writes about her reverence of James in *The Autobiography of Alice B. Toklas*. In an anecdote that is emblematic of their mutual regard, Stein explains that she once wrote on her exam, “I am so sorry but really I do not feel a bit like an examination paper in philosophy to-day,” to which James replied: “Dear Miss Stein, I understand perfectly how you feel I often feel like that myself” and still gave her “the highest mark in his course” (Stein, *Selected Writings* 74–75).

Stein participated in James’ cutting edge research on the psychology of attention and also published her own journal articles in the esteemed *Psychological Review*. One of her studies, “Normal Motor Automatism” (1896), examines the theory that actions produced without consciousness might offer windows into the subconscious mind. In this study, Stein concludes, “Acts ordinarily called intelligent, such as reading, writing, etc., can go on quite automatically in ordinary people... purely non-voluntary writing has a perfect ease and smoothness about it, and a perfect characterlessness” (Solomons and Stein, “Normal Motor Automatism” 508–509). This evidence would support William James’ coining of the term *stream*...
of consciousness. According to James, “Consciousness, from our natal day, is of a teeming multiplicity of objects and relations,” and these entities are always interactively in flux with or without our awareness. In his seminal work, The Principles of Psychology, James compares “the wonderful stream of our consciousness” to the flight activity of a bird, “It seems to be made of an alternation of flights and perchings. The rhythm of language expresses this, where every thought is expressed in a sentence, and every sentence closed by a period. The resting-places are usually occupied by sensorial imaginations of some sort” (James, The Principles of Psychology, 1: 224; 1: 243). James uses this image to show that consciousness is not only constituted by a serial progression of thought, but rather complex movements between objects in the mind. He depicts consciousness as a stream to highlight the flow between these objects, which are always connecting and interfacing. These objects can be sensations, images, percepts, concepts, and thoughts in different contexts. In the chapter, “The Stream of Thought,” James often refers to sentences and language as examples of mental states, which is not to suggest that we think in sentences, or that cognitive processes can be sufficiently captured by language. Steven Meyer offers a summary of the way James uses the sentence to explain this:

Suppose one were formulating a sentence. If the stream could be frozen at a particular moment and that slice of time examined, one would discover that the thought thus isolated contained both the word being uttered and the whole sentence of which the word was a part. Over time the emphasis would change, moving from word to word, and the state of consciousness with it. (Meyer, Irresistible Dictation 235)

Given the ability for writing and language to convey these fluctuating dynamics of the mind, a
similar concept has been broadly used to interpret certain modernist literature including the work of James Joyce, William Faulkner, and Virginia Woolf. Whether or not James was a direct influence on these writers, his research on the mind was a precursor to this type of literary understanding that attempted to depict the interior cascade of thoughts. It is important to distinguish Stein’s modernist texts from the technique of “stream of consciousness writing,” without separating her from James’ outlook on consciousness. Unlike these other literary figures, Stein’s writing does not depict interior monologues or direct access to a character’s mental subjectivity. Her writing style, however, does convey movement between sensations, thoughts, and feelings, in resonance with James’ original formulation. Stein describes complex relations between interior and exterior spaces, as there is always a flow from the domain of the perceptual to thought and feeling, and vice versa, in Tender Buttons. In developing a haptic poetic reading of Stein’s work, I will focus on how her writing opens up these kinds of relations.

Although Stein does not utilize the literary technique of stream of consciousness writing, her research interest at Harvard signals her later proclivity for using literary works to explore perspectives on consciousness. Despite her utter admiration for James and his exceptional knowledge about the mind, Stein found herself resisting the norms of formal research, and developing intuitive insights that were not necessarily congruous with its empirical format. In her essay, “The Gradual Making of the Making of Americans,” Stein describes how her primary

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2 In fact, Stein’s writing was initially characterized as essentially reproducing the very automatic writing that she had researched with James. Her texts, however, do not demonstrate automatism, as she adamantly insisted herself. This reading disqualifies Stein’s very intentional configurations of language. For example, in 1934, behavioral psychologist B.F. Skinner attempts to reduce Stein’s experimental style to automatism: “In short, the case is so good, simply on the grounds of style, that we are brought to the swift conclusion that the two products have a similar origin, and that the work of Gertrude Stein in the Tender Buttons manner is written automatically and unconsciously in some such way” (Skinner, “Has Gertrude Stein a Secret?” 52).
motivation in James’ laboratory stemmed from an intense curiosity in observing the relations between her own mind and body:

“I was tremendously occupied with finding out what was inside myself to make me what I was...I became more and more interested in my own mental and physical processes and less in that of others and all I then was learning of what made people what they were came to me by experience and not by talking and listening.” (Stein, “The Gradual Making of the Making of Americans,” Selected Writings 242; emphasis added)

Stein describes being driven by her own imagination of conceptual possibilities that were unlike the scientific and institutional customs she was being exposed to. While her emphasis on the word experience conveys what she learned over time, it also invokes the innovative way she eventually approaches perceptual experience in her experimental poetry.

Stein was on a path to specialize in pathological psychology, which would integrate her psychological training under James with the neurophysiological knowledge she would acquire in medical school. James strongly encouraged her to study medicine, so in 1897, after spending her post-undergraduate summer learning embryology at the Woods Hole Marine Biological Laboratory, Stein enrolled at Johns Hopkins. During her early years at Hopkins, the country’s first co-ed medical school, Stein developed a reputation for being a skillful researcher. The Hopkins Medical News recounts how she “thrived on scientific inquiry” and spent her time “[conducting] impressive research on the development of the human embryo brain (Sander, “The Unknown Gertrude”). After several years of study, however, Stein finally came to terms with her increasing boredom with the world of science and medicine. In The Autobiography of
Alice B. Toklas, Stein recalls how failing one of her very last courses provided the perfect opportunity for escape. While her professor implores her to take just one summer course so that she can graduate in the fall, Stein earnestly turns the offer down. Stein self-describes:

But not at all, said Gertrude Stein, you have no idea how grateful I am to you. I have so much inertia and so little initiative that very possibly if you had not kept me from taking my degree I would have, well, not taken to the practice of medicine, but at any rate to pathological psychology and you don’t know how little I like pathological psychology, and how all medicine bores me. The professor was completely taken aback, and that was the end of the Medical education of Gertrude Stein.

(Stein, Autobiography, Selected Writings 78)

The considerations of her own “mental and physical processes” that Stein mused about at Harvard, and which she takes up in Tender Buttons, require a special context that the framework of traditional science cannot accommodate. Steven Meyer explains that her failures in medical school “were due to constraints on creativity built into a [scientific] genre of writing modeled on analytic geometry (that is, as a matter of ‘bringing out the valuable results which evidently lie in the material’)” (Irresistible Dictation 92). Meyer’s comparison to geometric proofs elucidates the methodological format that Stein reconfigures in poetry. This will become evident by looking at the ways that her writing destabilizes conventional notions about reason and rational thought.

After leaving Hopkins, Gertrude Stein set up a new life in Paris in 1903. She established her salon at 27 rue de Fleurus as well as a lifelong identity as a pioneer of modern art and a writer of novels, poetry, and plays. Stein’s scholarship provided her with a lasting scientific and
psychological sensibility that is not only present in her literary writing, but essentially guides her experimental use of language. Steven Meyer offers a bold proposition that is crucial for understanding how Stein’s writing interfaces with scientific knowledge about sensory perception:

Stein’s compositional practices...are experimental in a way that other experimental writing isn’t. Instead of being modeled on scientific experimentation, her writing turns out to be a form of experimental science itself. It is not just that her ideas about writing were influenced by science; she reconfigured science as writing and performed scientific experiments in writing. (Meyer, *Irresistible Dictation* xxi)

Meyer states that Stein’s “…‘fundamental intuition’ remained scientific, despite the fact that her expression of a non-Cartesian, non-Newtonian, ‘organic view’ radically failed to conform to traditional scientific writing practice” (*Irresistible Dictation* 4). Stein disavows these normative axes, which circumscribed her academic studies, and turns toward an approach to the mind that can depict its processes through an alternative manner. Her writing remains scientific in the sense that she still explores the complex relations between the mind and external features. Her poetic framework does not use writing to mimetically describe the world, treating objects as a set of identifiable properties, but rather to capture the effect with which subjectivity interweaves experience with affective states and embodied sensations.

Stein’s avant-garde manipulations of language are most pronounced in her collection of poems, *Tender Buttons*, written in 1912, in which she frequently restructures traditional syntax and resists immediate comprehensibility. Consider the poem, “Red Roses.” Stein writes,
A cool red rose and a pink cut pink, a collapse and a sold hole, a little less hot.

*(Tender Buttons 14)*

Stein invites the reader into a kind of verbal and grammatical play that seeks access into the relations of elements that constitute her perception of these particular red roses. She calls upon sensory qualities such as color, *red* and *pink*; temperature, *cool* and *hot*; and spatial depth, *collapse* and *hole*. In this poetic sentence, Stein juxtaposes and repeats these features, i.e. “a pink cut pink,” producing interactivity between sensations. In this way, she characterizes sensory experience through intersecting dimensions of feeling. According to Stein, all that there is inside a person is not “the *actual words* they said or the *thoughts* they had but the *movement of their thoughts and words*” (Stein, “The Gradual Making,” *Selected Writings* 243; emphasis added). This reflection provides an opportunity to examine how Stein is conceiving of experience through a focus that not on specific thoughts and words, but on movements between these entities.

Stein’s sense of experience capiciously takes on the associations that interconnect internal processing. This is important because the category of experience plays an essential and complex role in the history of scientific and empirical thought. Empiricist philosophers, like John Locke, consider human sensory experience to be the sole vehicle for ascertaining knowledge. This perspective has been enormously influential upon scientific ideals like objectivity and practices of observation-based research. *Tender Buttons* intrinsically exists in relation to this discussion of recording experience, since the collection consists of Stein describing the dynamics of her relationships to different objects. Stein’s emphasis on
associations, and not individual entities, reflects a *radical empiricism*. This is the philosophical position that William James advances in response to traditional empiricism, which he believes to have a reductive idea of the elements that constitute experience.

Stein’s focus on collective movement provides a reading of “Red Roses” that concentrates upon her ability to connect, alternate, and entangle sensory effects for the reader. This interactive flow of words, which is observable in “Red Roses,” relays James’ stream of consciousness, which similarly considers a nonlinear configuration of thoughts. Meyer even suggests, “Stein may be understood as refining [James’] picture of the sentence swimming in the stream of thought” (*Irresistible Dictation* 236). Her poem demonstrates James’ considerations that consciousness is always moving in flight from perch to perch, word to word, or thought to thought. Stein uses language to express an inter-splashing current of sensory feelings, while disregarding structures like conventional grammar that would deform this natural flow. By deeply studying her own mental and physical relationships to objects, Stein produces sensory-textual effects that *simulate* the sensory dynamism of her experiences for the reader. A deeper consideration of James’ influence on Stein’s writing will develop how the term *simulation* explains her descriptive capacity.

There is a cryptic quality about the way Stein uses language in “Red Roses.” As her poetry produces an interpretational recalcitrance, this unconventional literary manner has been the subject of an immense body of scholarly inquiry. My reading of Stein’s haptic poetics is in the company of many other critical interventions. For example, in *The Structure of Obscurity: Gertrude Stein, Language and Cubism*, Randa Dubnick understands Stein’s work through the lens of cubist painting, “[suppressing] syntax” to “[resemble] the kind of visual obscurity
produced by synthetic cubism,” to theorize how Stein’s writing was influenced by the cubist pioneers, and members of her salon, Pablo Picasso and George Braque (Dubnick 104). On the other hand, feminist critics, like Marguerite S. Murphy, read her work as “[reinvesting] domestic labor with value, to make household tasks into code words for stability in her new domestic arrangement and for erotic lesbian love” (Murphy, “Familiar Strangers’: The Household Words of Gertrude Stein’s “Tender Buttons”” 388).

These interpretations all examine some underlying import for Stein’s eschewing of linear relationships between language and meaning, however, this phenomenon is particularly apparent in readings that draw upon Stein’s extensive education in scientific and psychological research. In Primary Stein: Returning to the Writing of Gertrude Stein, literary critics Sharon J. Kirsch and Janet Boyd describe this breadth of scholarly writing on Stein as motivated by her “experimental metapoetics and artful monkey wrenching of the Enlightenment legacy” (Kirsch and Boyd, Primary Stein 1). They fittingly describe her disruption of intellectual conventions as “wrenching,” as this highlights how Stein’s turn to literary writing does not reflect an abandonment of science, but rather a reconfiguration of the practice. Her subversion of syntax in poetry affords Stein the opportunity to utilize language flexibly, that is, without being restricted to the scope of grammatical structures. This echoes the way that she foregoes the formal structures of scientific research, while continuing to study perceptual relations that constitute the experience of the subject in terms of a network of sensations, thoughts, and emotions. Stein’s work did not end when she abandoned the laboratory; it evolved into a new methodology.
Reading Stein through James’ Radical Empiricism

In her poetry, Stein engages several concepts that originate from her mentorship under William James. Her treatment of experience in *Tender Buttons* can be understood through the context of James’ philosophy of radical empiricism, which is based in the complex and associative relations between objects, and somewhat permeable margins between internal and external domains.

James developed radical empiricism to challenge the logic of traditional empiricism, especially in terms of how objects constitute experience. The traditional view is a theory that relies upon a straightforward notion of sensory experience, in which all knowledge is determined by observable facts. James condemns the empiricist’s refusal to speculate beyond “this visible world” and, according to Stanley Cavell, “what is wrong with empiricism is not its reliance on experience but its paltry idea of experience” (Cavell qtd. in Meyer, *Irresistible Dictation* 12-13).

What makes James’ empiricism *radical* is his redefinition, which places value on properties of a world that may not be readily observable and an emphasis on the ways in which those elements are in a flux of associations with one another. Associations occur between the features of external objects, as well as the internal transitions between thoughts and feelings.

These principals powerfully influence Stein’s experimentalism in *Tender Buttons*. In her essay, “Spreading the Difference: One Way to Read Gertrude Stein’s Tender Buttons,” literary critic Pamela Hadas, describes the ways in which James’ philosophy surfaces in Stein’s writing. Citing *The Principles of Psychology*, Hadas describes how Stein and James similarly configure sensory experience:
William James had been teaching that ‘association, so far as the word stands for an effect, is between THINGS THOUGHT OF—it is THINGS, not ideas, which are associated in the mind. We ought to talk of the association of objects, not the association of ideas. ’… What matters most—the objects or the thoughts or the self thinking or the relations of all of these? In reading Gertrude Stein’s Objects [in Tender Buttons] we are liberated from the objects themselves by an atmosphere of play, between them as well as between them and her, which associates and transforms.

(James qtd. in Hadas, “Spreading the Difference” 59-60; emphasis in original)

For James, ideas have a stagnant essence. The idea of roundness is always the same, and all round things share in this conceptual understanding. The phenomenon of ideas avoids the interrelational flow between the many elements that produce a specific experience of roundness. For Stein, this relates to the ways that descriptive language misses the dynamism and necessary ambiguity of experiences. When we explain an object with a word, or idea, like chair, or even wood, we reduce it to a recognizable entity and lose the nuance of what this experience is really like. As James explains, experience emerges from the associations between an array of objects and things. This Jamesian notion directly translates to Stein’s dislike of the noun, which she calls “just an unnecessary name of something,” because nouns never describe true qualities about the thing being named, and therefore what an experience with this thing could entail (Stein, “Poetry and Grammar” 215). Since a signifier has nothing to do with the felt experience of an object, Stein instead turns to the complex qualities that do shape experience. Stein’s critique of nouns demonstrates a frustration that she inherits from James: a disdain for inert shells of meaning that cannot explain the elaborate realism of lived experiences.
James’ radical empiricism, and his focus on associations in the world and mind, shapes the interdependent relations between object and perceiver in Stein’s poetry. In *The Autobiography of Alice B. Toklas*, Stein recalls in the third-person, “Gertrude Stein, in her work, has always been possessed by the intellectual passion for exactitude in the description of inner and outer reality” (*Autobiography, Selected Writings* 198). This directly reflects what Meyer describes as radical empiricism’s “blurring of the boundaries between inside and outside” (*Irresistible Dictation* 48). As will be demonstrated in close readings of “Dirt and Not Copper” and “Carafe, that is a Blind Glass,” by calling upon various embodied and emotional feelings, Stein productively confuses what belongs to the exterior world and what originates from subjective feeling in the perceiver.
Describing Experience: Simulation in Stein’s Poetry

“Poetry is concerned with using with abusing, with losing with wanting, with denying with avoiding with adoring with replacing the noun. It is doing that always doing that, doing that and doing nothing but that. Poetry is doing nothing but using losing refusing and pleasing and betraying and caressing nouns” (Stein, “Poetry and Grammar” 231)

Stein’s relationship to description is complex and requires nuanced terms that can specify the experiential content that she represents with experimental language. Her writing in *Tender Buttons* obviously contrasts the descriptive capacity of scientific writing, which originates from the empirical ideal of “objectivity,” however this does not mean Stein merely provides a juxtaposing glimpse into “subjectivity.” Stein’s writing provides a *descriptive simulation*, through which she portrays a multidimensional interface between inner and outer dimensions of experience.

Since Stein departs from research science to examine questions of perception through the artistic medium of poetry, her writing can most obviously be distinguished from empirical approaches through the difference between *showing* and *telling*. Although she does not consider this correspondence to science, Gabrielle Dean evaluates this dichotomy in her essay, “Make it Plain: Stein and Toklas Publish the Plain Edition.” Dean sheds light on the descriptive quality Stein produces in writing by interpreting Stein’s statement, “Everybody knows the difference between explain and make it plain.” For Stein, this difference is “what we might call, in current parlance, ‘showing not telling’” (Dean, “Make it Plain,” *Primary Stein* 13). Stein is able to produce quintessential examples of experience in *Tender Buttons*, through her capacity to *show*. Her writing has access to dimensions of perception that a scientific knowledge of the mind,
which *tells*, is not able to capture. This disparity is demonstrated by the temporalities in Stein’s poetry and scientific writing. In recording observations, science always reflects upon something that has *happened*. It is always telling us about these past events. Alternatively, Stein writes in “the continuous present,” which is a term she uses to describe how “present experiences might be conveyed in language without losing the quality of ‘being in the present’” (Stein qtd. in Meyer, *Irresistible Dictation* 16-17). Stein therefore operates in the mode of *showing* because she brings us into a moment that is *happening*.

While Stein’s intellectual training originates in William James’ philosophical and psychological perspectives, her descriptive manner in *Tender Buttons* does not neatly fit into the dichotomy he establishes in *The Principles of Psychology*. Borrowing terms from philosopher John Grote, James declares, “*There are two kinds of knowledge* broadly and practically distinguishable: we may call them respectively *knowledge of acquaintance* and *knowledge-about*” (*The Principles of Psychology* 1: 221). The philosopher Susanne Langer explains that “science is essentially ‘knowledge about’” (*Mind: An Essay on Human Feeling* 24). It is “about” because the approach is based in a description that conveys information, which inevitably approximates the thing being described. Knowledge-about thus embraces observation in the vein of traditional empiricism. Knowledge of acquaintance, on the other hand, is description-less and entails the knowledge that is conveyed through first hand experience. Although James does not consider this possible, Meyer articulates that to “impart acquaintance” would mean that one could communicate “the direct experience of this thing…to somebody who hasn’t already experienced it” (Meyer, *Irresistible Dictation* 6).
As a good Jamesian subject, Stein is aware of the reductive pitfalls of empirical description, which influences her distrust of nouns, however she eventually realizes that in attempting to subtract knowledge-about from her writing, she actually produces a new descriptive form of poetry. Stein’s process in crafting Tender Buttons entails, “looking at anything until something that was not the name of that thing but was in a way that actual thing would come to be written.” Stein wants to use language in a way that conveys what it is actually like to perceive that thing, or as she says, how to “feel the thing” (Stein, “Poetry and Grammar,” Lectures in America 237). This is demonstrated by the poem, “A Sound.” Stein writes,

Elephant beaten with candy and little pops and chews all bolts and reckless reckless rats, this is this. (Tender Buttons 15)

Stein does not describe the sound in a predictable way, nor does she even inform the reader what it is that produces the sound in the first place. Instead, Stein uses language to playfully evoke the qualitative experience of the elements that collectively produce this sensation for her. Her warped syntax avoids the ways in which traditional syntax imposes an exacting organization about the ways that things can be onto description (i.e. past/present/future; active/passive). Since grammar obscures the complexity of experience, and nouns fail to convey worthwhile qualities about experience, Stein approaches writing without participating in these restrictive structures. This does not, however, make her writing non-descriptive. In “Poetry and Grammar,” Stein admits that to create poetry, she needs a certain form of description. She explains, “[The objects] had their names and naturally I called them by the names they had and in doing so having begun looking at them I called them by their names with passion and that made poetry, I did not mean it
to make poetry but it did, it made the Tender Buttons” (“Poetry and Grammar” 235). This new kind of naming corresponds to the new description that Stein develops in *Tender Buttons*.

Through this new descriptive method, Stein strives to accomplish a way to genuinely convey her experiences with domestic objects, in a way that echoes James’ ideal of acquaintance. In a theater-based reading of Stein, the literary critic Adam Frank invokes the manifestation of James’ theory in her text, “Stein’s poetics...are centrally concerned with the question of whether and how plays can permit audiences, or indeed actors, to experience new knowledge” (Frank, *Transferential Poetics, from Poe to Warhol* 98). Frank’s reference to experiencing “new knowledge” calls upon James’ knowledge of acquaintance. This would mean that Stein’s writing has access to dimensions of experience, which can be profoundly communicated to the reader, or audience member. In a 1926 essay, Stein aptly explains her own writing as *acquaintance with description* (Stein, *An Acquaintance with Description. A Stein Reader* 504). This synthesizes the two forms of knowledge that James draws a sharp line between. According to Meyer, the term perfectly conveys how “Stein in her writing attempts to do what James says can’t be done: impart acquaintance to someone who hasn’t already experienced it” (Meyer, *Irresistible Dictation* 17).

Poetically, Stein imbues the reader with feelings that did not literally occur, however she does this by describing the external properties and internal sensations that cause the sensory experience to emerge. Stein therefore produces a descriptive account that *simulates* these dimensions of experience. I will focus on her ability to capture the ways in which different senses are interactively embedded, as well as a productive blurring between sensing body and thinking subject. This understanding is distinct from scientific, but also conventionally grammatical forms of description as it examines Stein’s experimental undoing of syntax and juxtaposition of words.
to evoke the transforming exchanges between feeling, thought, emotion, embodiment, and materiality, all of which work to configure a haptic poetic reading of Stein’s text.

Descriptive simulation exists in relation to terms that other readers of Stein have used to explain how her writing achieves acquaintance with description. For example, Meyer argues that “The problem, to put it bluntly,” in reading Stein, is “not to confuse imitation with recreation” (Meyer, Irresistible Dictation 116; emphasis added). Meyer suggests that Tender Buttons recreates the experiences of objects for the reader through its textual effects. Descriptive simulation, however, is slightly different. The category of recreation suggests that an external object can somehow be resurrected. I am developing simulation as a way to convey Stein’s ability to register the internal perceptual domain of an experienced object. I am not suggesting that Stein represents a mimetic world that is “out there,” but instead that she produces a felt space in poetry by blending inner and outer experience. This does not seek to undermine Meyer’s terms or his depiction of Stein, but instead, distinguishes to clarify the particular scope of experience that my haptic poetic reading will address (this will be especially important for the discussion of tactility and affect in Part Two).

Stein’s ability to descriptively simulate experience lies in her skillful manipulations of language. She unravels and reworks language’s capacity to represent meaning in order to elicit these physical and mental aspects of perception. Stein cultivates experimental linguistic and grammatical techniques that allow her to “radically extend the range of conjunctive relations operating within and between words and sentences” (Meyer, Irresistible Dictation 27).

Similarly, language poet Lyn Hejinian describe Stein’s ability to convey experience authentically through these types of linguistic measures:
Stein’s language is not only meaningful but is in fact a form of realism superior to what we customarily call realism, a mimesis not of the external object but of the perceptual process, a realism not of subject matter but of artistic means. Stein offers a later generation of poets a way of making sense of the way we make sense.

(Hejinian qtd. in Hartley, “Textual Politics and the Language Poets” 5)

Hejinian explains how the term descriptive simulation and recreation work in different registers. She points out the ways in which Stein’s use of language is at the root of her ability to successfully display experience in terms “of the perceptual process.” Stein plays with multiplex possibilities of language, like joining certain “conjunctive relations,” to reveal the elaborate networks within sensory perception. In Tender Buttons, the specific object that each poem takes on is rarely recognizable from Stein’s descriptions because this is the work of the noun, to signify by telling rather than showing. Stein’s frustration with the noun’s failure to adequately describe relates to the discussion of representing perceptual states. An image of a neural pattern, or an empirical description of a mental state does little to engage the unique quality of experience (think about what it is intrinsically like to taste chocolate).

Stein exemplifies how to describe the content of experience without obstructions like nouns in her admiration of Shakespeare’s ability to depict a forest “without mentioning the things that make a forest. You feel it all but he does not name its names” (“Poetry and Grammar” 236). Shakespeare’s genius is attributed to simulating the feeling that this experience captures, which is to say that he too produces acquaintance with description. This method of tapping into dimensions of experience by describing without literally denoting its features differentiates
Stein’s text from the descriptions in research science. If the mind sciences are committed to understanding the nature of sensory perception, surely a description that can convey what it is like to “feel a forest” contains instructive value for knowledge about how the mind operates and is oriented to construct experiences. While some great writers, such as Shakespeare, may provide access through such moments, given Stein’s education and research background, she is particularly equipped to sharpen a scientific understanding of perceptual dynamics and theoretical approaches to sensory experience, through her text’s “mimesis not of the external object but of the perceptual process.”

James’ notions about imparting acquaintance, Meyer’s observation about recreating an experience, Hejinian’s commentary about “making sense of the way we make sense,” and Stein’s deliberate attempt to communicate the unique temporal presence of feeling, collectively point to this essential mode of reading Stein’s poetry. Stein’s laboratory of poetic observation must therefore be understood as a space in which experiences of domestic objects are so profoundly studied that she is then able to produce effects in writing that insightfully exemplify the interactive dynamics in which feeling moves between materiality and embodied subjecthood.
Departing from James: Mapping a Space between Poetry and Science

By using the term, *acquaintance with description*, Stein challenges James’ fundamental belief that knowledge of acquaintance is an unattainable ideal. He considers acquaintance to be an idealized component within his critique of the “dogmatic positivism” of empirical thought (Meyer, *Irresistible Dictation* 12). For James, acquaintance represents direct access to experience. He writes that knowledge of acquaintance is unlike descriptive knowledge because description automatically obscures the ineffable nuance of experience. Stein’s suggestion that she might be able to impart acquaintance *through description* breaks from James on the fundamental level of actualizing his idealism.

Stein also diverges from James in her stance on the role of language. Her ability to descriptively simulate experience derives from her production of sensory-textual effects. Meyer depicts James’s desire to reach a state of knowledge without the interference of language as, “premised on a sense of the desirability of transcending the opacity and embodiment of writing or its equivalent, a lingering idealism in the midst of his radical empiricism which Stein sought to correct” (*Irresistible Dictation* 48). Stein does not share in James’ desire to relinquish language. Meyer uses the term *embodiment* to denote James’ opinion of writing’s material inability to rise to the ethereal arena of knowledge of acquaintance. This is the opposite for Stein, as she makes use of the embodiment of language to reveal the nuances of experience. In her original poetic methodology, she explores phenomena of the body through experimental linguistic relations that communicate visceral feelings and sensations.
Differentiating Stein from James’ conceptual scope provides the occasion to acknowledge what science, philosophy, and poetry can offer as individual disciplines, and what can be offered by through an interdisciplinary scope. The literary critic Jonathan Kramnick comments upon Thomas Nagel’s seminal essay “What is it like to be a Bat?” in a way that illustrates how Stein is able to articulate dimensions of experience that are not available to empirical research. Nagel’s essay explains the gap that exists between an account of a particular experience of something, and what it is actually like to be the person (or in Nagel’s case, the bat) perceiving that thing. Kramnick argues, “…no amount of objective data from neuroscience is going to tell us what it is like to be a subject with a point of view. The objective stance leaves something out” (Kramnick, “Literary Studies and Science: A Reply to My Critics” 56). What is left out is precisely what Stein is well equipped to uncover in her literary simulation of experience. Stein’s approach in *Tender Buttons* provides access to such intrinsically subjective dimensions of the mind, which are key to understanding the ways that complex feelings, like pleasure and disgust, weave affect into embodiment. By integrating theoretical imaginaries across these different methodologies, we can develop a richer and more comprehensive landscape of knowledge to depict the multiplex nature of perception and the mind.
A Phenomenological Understanding of Stein’s Haptic Poetics

Stein’s ability to convey what certain experiences are like is akin to the ways that philosophers of phenomenology discuss experience in terms of phenomenal consciousness. In fact, it was Nagel who first used the phrase ‘what it is like’ to describe experience. Although Nagel is an analytic philosopher, not a phenomenologist, this phrase has played an important role in verbalizing the ways that materialism cannot account for everything; there is something left over. For this reason, the phrase is often used to discuss relations of phenomenal consciousness. As phenomenologists Shaun Gallagher and Benjamin Aguda explain, the term *phenomenal* indicates “the specific qualitative feel of experience” (Gallagher and Aguda, “The Embodied Phenomenology of phenomenology” 94).

Shaun Gallagher is among several contemporary philosophers, including Francisco Varela, Evan Thompson, Dan Zahavi, and Alva Noë, who attempt to connect phenomenology to contemporary cognitive neuroscience. In general, they argue that paying attention to the real nature and richness of lived experience should be relevant to scientists studying the mind. These philosophers, however, did not invent this position. Their stance is the culmination of the phenomenological tradition that was founded by Edmund Husserl, and which was “deeply influenced by the writing of William James” (Drabinski, “Radical Empiricism and

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3 Phenomenology is a philosophical view that examines consciousness as based in structures of experience. While phenomenology and empiricism both focus on experience, empiricism concentrates upon the ways that knowledge is acquired through sensory experience, while phenomenology is grounded in the ways in which first hand experiences are intuitively and qualitatively constituted.

4 In Paul M. Churchland’s definition of materialist theories of the mind, he explains, “what we call mental states and processes are merely sophisticated states and processes of a complex physical system: the brain” (Churchland, *Matter and Consciousness* 3).
Phenomenology: Philosophy and the Pure Stuff of Experience” 226). James’ notion of knowledge of acquaintance similarly examines phenomenal consciousness\(^5\). Husserl read and respected James’ work prior to his conception of phenomenology in the early 20\(^{th}\) century. Husserl taught Martin Heidegger, and both of their writing went on to critically influence Maurice Merleau-Ponty and Jean-Paul Sartre. Contemporary phenomenologists are grounded in the writing of these classic philosophers. Recently, they have been attempting to bring this theoretical position into the conversation about the mind that is happening in cognitive science. As they are part of an intellectual tradition that goes back to James, this emerging perspective on phenomenological cognition resonates with Gertrude Stein’s conceptions of the mind in poetry.

James’s writing was significant to Husserl because radical empiricism itself is very phenomenological in its endeavor to examine what really comprises experience. For example, Gallagher and Aguda’s discussion about the ways in which our emotional responses and bodily states reciprocally shape one another has obvious origins in James’ perspective on embodied emotions published in 1890 in *The Principals of Psychology*. James posits that our experience of emotions emerges as a result of physiological responses. Consider Gallagher and Aguda’s phenomenological interpretation of a recent study\(^6\):

\(^5\) For example, James explains that he knows “the color blue when [he] sees it, and the flavor of a pear when [he] tastes it,” but “the inner nature of these facts or what makes them what they are, I can say nothing at all. I cannot impart acquaintance with them to anyone who has not already made it himself” (James, *The Principles of Psychology*, 1: 221).

\(^6\) This is a discussion of Sarah N. Garfinkel, Ludovico Minati, and Hugo D. Circhley’s 2013 study, “Fear in your heart: Cardiac modulation of fear perception and fear intensity.”
The experience of fear is constrained by the activity of the circulatory system. When the heart contracts in a systolic phase, fearful stimuli are more easily recognized, and they tend to be perceived as more fearful than when presented in a diastolic phase. Perception and the phenomenal experience of fear is therefore modulated by the overall organization of our flesh and blood bodies, which are constantly being modified and are constantly shaping the way that we experience the world.

(Gallagher and Aguda, “Embodied Phenomenology” 101)

This analysis directly corresponds to the James-Lange theory, which states “that the bodily changes follow directly the perception of the exciting fact, and that our feeling of the same changes as they occur IS the emotion” (James, *The Principles of Psychology*, 2: 449). James’ famous example, in “What is an Emotion,” is his reconsideration that we do not run from a bear because we are afraid of it, but instead, we are afraid of the bear because we run away from it. Fear is not caused by our knowledge of the bear, but rather by our embodied response system that is triggered by the bear. James’ account of emotion importantly set the stage for the ways that emotion is not considered as confined within the brain, but instead is a component of interactive embodied experience. This notion, which derives from James, is fundamental to phenomenology’s understanding of experience. Merleau-Ponty makes especially explicit that the body is the essential basis for all perceptual experience.

Stein’s poetic simulation of perception can be expanded upon by the phenomenological emphasis of embodiment that exists in relation to the James-Lange Theory. Adam Frank writes, “Stein’s use of physiological terms depends on and can be understood in the context of James’s
definition of emotion” (Frank, *Transferential Poetics*, 100). The fact that phenomenologists extend James’ discussion of embodiment demonstrates how their concepts participate the same intellectual genealogy as Stein. Gallagher and Aguda carry embodiment into a new and controversial theory that many, if not all, aspects of cognition are intrinsically embodied, and therefore are shaped by features outside of the brain. In their definition of the phenomenal aspect, Gallagher and Aguda’s reference to the “feel of experience” reflects Stein’s embodied treatment of feeling in poetry. Stein insists that any valuable description must also take into account one’s internal experience of the thing being perceived. Stein explains her new form of description as an attempt to “feel the thing” (“Poetry and Grammar” 237). In Meyer’s reading of feeling in Stein, “No thought exists without feeling, nor any human feeling without some kind of thought” (*Irresistible Dictation* 16). Stein approaches feeling as in the body as well as in internal affective domains. Her complex treatment of feeling demonstrates why her writing can simulate dimensions of experience that are challenging for empirical observations to depict. To contextualize the challenging nature of phenomenal relations in Stein’s writing, consider the experience of sipping red wine or tasting dark chocolate. Both scenarios have distinct qualities, which determine what each experience is like, but you would be at a loss if you had to write a descriptive essay that could make these phenomenal qualities literally known to an outside mind. As Kramnick mentioned, “The objective stance leaves something out.” Traditional science, in its empirical foundation, is therefore ill equipped to explain what experiences are like.

Stein does not surpass this inherent indescribability in a literal fashion. When she describes qualities like “redness” or “sourness” it does not actually trigger the sudden

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7 This theory of embodied cognition will be closely examined in Part Two, with attention to the ways in which the body’s senses can be considered as “logic-seeking.”
experience of a red or sour thing for the reader. This illustrates why simulation entails more nuance than recreation, as recreation implies something that is perhaps too mimetic in its attempt. Stein’s acquaintance with description remarks upon her ability to simulate phenomenal consciousness, meaning she produces textual-sensory effects for the reader that are phenomenally salient in capturing “what it is like” to experience that object. Although Meyer does not use phenomenological terms, his description of Stein corroborates her having this ability to exemplify dimensions of phenomenal consciousness in writing. Meyer notes, “Stein was able to record her investigations of at least one form of feeling – ‘feel[ing] writing’ – by rendering it visible, hence verifiable, yet without subjecting it to the inevitable inaccuracies of ordinary scientific description” (Meyer, Irresistible Dictation 28). If we can understand Stein’s illumination of feeling as creating a space for phenomenally realistic portrayals within a model of perception, then this offers another disciplinary avenue for considering Stein’s descriptive simulations of experience in poetry. Through their mutual foundation in James, an understanding of Stein’s experimental writing can be enhanced through the framework of phenomenology. This is especially important to a haptic poetic reading because it places her writing in relation to recent conversations between philosophers and mind scientists about the nature of sensory experience.
Turning to *Tender Buttons*

*Tender Buttons* meditates upon the relationship between the subject and different objects. Marjorie Perloff cites an interview in which Stein comments upon writing this collection of poems, “I used to take objects on a table...and try to get the picture of it clear and separate in my mind and create a word relationship between the word and the things seen” (Perloff, “Grammar in Use”: Wittgenstein/Gertrude Stein/Marinetti 42). Stein’s predominant motivation is to identify the essence of her perceptual associations with the object that each poem depicts, engaging with the relational “atmosphere of play” that Hadas previously identified. By describing Stein’s writing process as moving from the object that sits on the table to some representation of the object in her mind, Perloff raises the entanglement between a necessarily internal experience that occurs with a necessarily external object. Stein uses linguistic tools to represent this interactive dichotomy between inner and outer, which she refers to as “word relationships.”

The poem, “Dirt and Not Copper,” elucidates how Stein reveals the connections between the individual and physical world by disclosing facets of perceptual processing which typically occur without our awareness. Stein’s descriptive simulation of experience relies upon three conceptual aspects which I will closely examine: the way that sensations can inform one another across modalities, a productive confusion between qualities belonging to the object and the perceiver’s sensations, and a dynamic relationship between affect and embodied sensation. Stein writes,
Dirt and not copper makes a color darker. It makes the shape so heavy and makes no melody harder. It makes mercy and relaxation and even a strength to spread a table further. There are more places not empty. They see cover. (Tender Buttons 14)

By never revealing the object that the initial color refers to in the poem, Stein points the reader to the ways that external material qualities interface with internal sensations. Beginning with the effects that materiality, “dirt” and “copper,” have on visual orientation, by producing “darkness” that may refer to hue or luminance, a cascade of other sensory implications is triggered. The shape, which may refer to silhouette or contours, increases in magnitude or weight. This transformation is curious, as what it means for shape to become “so heavy” is not explained. The next measure, making “no melody harder” calls attention to what the sound quality of something may entail, which is likely non-musical. Perhaps dirt alters the type of sound an item creates when one interacts with it. Perhaps dirt changes the threshold at which it vibrationally resonates. Just like heavier shape, Stein’s “no melody harder” presents an interpretational obstacle. The syntax is structured to raise contrasting possibilities. It could indicate an absence, in which there is not a melody that is made hard. It could also denote an extreme presence, in which this melody is so hard that no others surpass it.

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8 For more information about how materiality modulates sound quality, an object’s elasticity and density primarily affect “affect the speed of sound. It takes more energy to make large molecules vibrate than it does to make smaller molecules vibrate. Thus, sound will travel at a slower rate in the more dense object if they have the same elastic properties. If sound waves were passed through two materials with approximately the same elastic properties such as aluminum (10 psi) and gold (10.8 psi), sound will travel about twice as fast in the aluminum (0.632 cm/microsecond) than in the gold (0.324 cm/microsecond)” (“The Speed of Sound in Other Materials” www.nde-ed.org).
Sound described in terms of hardness is another case of trans-sensory manipulation. This applies typically physical traits like firmness, strength, and density to a non-physical domain. Hardness may also refer to dimensions of audible quality including tone, volume, timbre, rhythm, or even just the scratchiness of sound. The sensory effects produced by one substance, “dirt,” as opposed to another, “copper”, reveal this network of perceptual qualities. Stein therefore calls attention to the interactive possibilities that originate from the embodied subject’s diversity of opportunities to encode within each sense.

The difficulty in differentiating whether perceptual qualities derive from properties of an object or from the sensations within the subject characterizes a central discussion taken up by philosophers of perception. The theory of naïve realism suggests that redness is literally in the apple and therefore the object gives rise to our perceptual experiences like redness. Alternatively, other philosophers and scientists argue (in different ways) that this does not sufficiently explain how appearance of color is the product of the complex relations between the reflectance in wavelength of an object’s surface, the spectral sensitivity of our retinal cone cells, the neurobiological processing within the brain’s visual cortex, and the cognitive representational system for presenting color to the mind. Given the complex architecture of color processing, many argue that the quality of redness exists in the embodied subject, in their perceived state of the experience. Stein’s poetry complicates this discussion by productively identifying how our experience of qualities like color do not exist in isolation from other sensory phenomena, and instead perception integrates multisensory, motor, and affective domains of experience. Tender Buttons describes feeling as the nexus between the movements amongst these entities.
The phenomenological perspective of perception provides a theoretical grounding that clarifies how bodily sensations and affect are interwoven. In “The Embodied Phenomenology of phenomenology,” Shaun Gallagher and Benjamin Aguda anchor their interpretation of consciousness through a combination of philosophical concepts and scientific evidence. According to Gallagher and Aguda, phenomenal experience is predicated on the design of a somatic-emotional complex, in which affect and embodiment jointly organize perception. The body influences perception based on its preexisting feelings. Gallagher and Aguda introduce the term, bodily affects, which include pain, hunger, nausea, fatigue, giddiness, fullness, numbness, and sensations of warmth or coldness, among many others (“Embodied Phenomenology” 98-99). For example, evidence demonstrates that the effect of hunger is so robust that without realizing it, judges sanction harsher rulings the longer it has been since their last meal9 (“Embodied Phenomenology” 101).

Bodily affects demonstrate how constraints on the body modulate underlying emotional stances, and how this goes on to regulate our experiences in the world10. This evidence complicates how feeling and experience have to do with both what we are perceiving, as well as how we are predisposed to do so in each given moment. Sensation and affect are therefore so intersectional that it is challenging, if not problematic, to consider these two spheres in isolation from one another. The multiplex material and sensory interface that Stein depicts in poetry contemplates the ways that these interactions configure our qualitative interior experience. As

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9 This conclusion is reached in Shai Danziger, Jonathan Levav, and Liora Avnaim-Pesso’s 2011 study, “Extraneous Factors in Judicial Decisions.”
10 Another example is the deterministic relationship between fatigue and the human perception of distance, with evidence provided in 2003 by Dennis R. Proffitt, Jeanine Sefanucci, Tom Banton, and William Epstein, in the study: “The Role of Effort in Perceiving Distance.”
previously mentioned, Gallagher and Aguda’s discussion stems from the legacy of the James-Lange hypothesis, which originally posited the embodiment of emotion and affect. Their phenomenological articulation demonstrates why the phenomena surrounding embodied feelings cannot be easily captured by empirical observations. This resonates with the approach to experience that is explicated by James and descriptively simulated by Stein in her acquaintance with description.

The very first poem in *Tender Buttons*, “A Carafe, that is a Blind Glass,” provides key insights into the ways that Stein productively uses language to gain access to multisensory dimensions of experience. While the title presents the object Stein examines, “A Carafe,” the other words, “that is a Blind Glass,” distorts our understanding by introducing the object as “blind.” This phrase sets the tone for the sensory implications that are to come in the poem. Through blindness, Stein attributes the absence of human vision to a glass object. Transmuting embodied qualities into an object’s properties is an example of Stein’s blurring between descriptions “of inner and outer reality,” and hinting at ways that the objects can be kinds of fleshy agents which act on us (Stein, *Autobiography, Selected Writings* 198). In the poem, Stein reports upon the carafe in terms of its propensity to incorporate and warp sensory information:

A kind in glass and a cousin, a spectacle and nothing strange a single hurt color and an arrangement in a system to pointing. All this and not ordinary, not unordered in not resembling. The difference is spreading. (*Tender Buttons* 3)

The poem examines the glass materiality that the title introduces. The phrase, “a cousin,” presents the possibility that there are two related entities. This “other” could be another carafe,
but it is likely something less literal. This could be a clue to the structure of the poem’s first sentence, which is made of three groupings that contain something and its other; perhaps each thing has a cousin, which is a related but distinct entity. The items in the second group, “a spectacle and nothing strange,” juxtapose one another in a similar way. The third group, “a single hurt color and an arrangement in a system to pointing,” contrast single from arrangement, but a deeper reading is required to answer what it means for the single color to be “hurt” and what “a system to pointing” could be. If the pairs of ‘cousins’ denote contrasting versions, this would suggest that Stein is examining how an object like a carafe can simultaneously operate in multiple ways. This is exemplified by the third group, which explores the effect of the carafe’s refraction and reflection of light. The “single hurt color” describes the effect of surrounding lights being refractively integrated into the carafe. The word “hurt” alludes to the way that the carafe bends light; playfully suggesting this luminous torsion might cause it pain. The first description of the carafe is oriented from the environment into the carafe, but its cousin, “an arrangement in a system to pointing,” refers to the alternate situation. This describes how the carafe’s amalgamation of intermingling light qualities is a visual system that reflectively points outward. This direction orients toward each of the original sources of color being reflected.\textsuperscript{11}

Both poems demonstrate how robust associations between sensory properties characterize perceptual experience. “Dirt and not Copper” highlights the perceptual networks that exist between material and sensory dimensions. Similarly, in “A Carafe, that is a Blind Glass,” Stein explores multiple associative perspectives within a visual field. These poems exemplify Pamela Hadas’ reading of Stein in which, “we are liberated from the objects themselves

\textsuperscript{11} Since Stein’s language is so dynamically evocative, it is important to note that this particular reading of the poem does not preclude many other possible interpretations.
by an atmosphere of play, between them as well as between them and her, which associates and transforms” (“Spreading the Difference” 59-60). In “A Carafe,” Stein expresses the connections and movement between the elements we perceive, as well as between the subject and environment. Her emphases of the interrelationships between sensory and material qualities convey her radical empiricist intentions to characterize sensory experience through associations and not isolated phenomena.

In both poems, Stein’s intention to produce a range of interpretations is not a case of murkiness in her description. Instead she dynamically opens up to the many inputs that can collectively shape perceptual experience. This realistic approach invokes the constellation of qualities that are perpetually at play, with or without realization. Neil Schmitz, in *Gertrude Stein as Post-Modernist: The Rhetoric of “Tender Buttons,”* raises this complexity in terms of the flux of experience, where nothing ever remains still. Schmitz explains:

> Everything is contingent, changing as it moves and the mind moves. To write in this mode of perception, Gertrude Stein constantly presses against the order of language those elements of syntax and signification that provide philosophical and scientific discourse with its stability. (Schmitz, *Gertrude Stein as Post-Modernist* 106)

Schmitz proposes that Stein’s linguistic mastery creates a space where she indeed delivers “philosophical and scientific discourse,” harkening back to Meyer’s readings of Stein’s “poetic science” and Stein’s own scholarship at Harvard and Johns Hopkins. Schmitz highlights the necessary role of motion where everything “changes as it moves and the mind moves.” This rejection of stagnation evokes Stein’s own disdain toward description in terms of nouns. Stein’s
awareness of the magnitude of multisensory opportunities illustrates how perceptual experience
is phenomenologically constituted by an incredibly complex matrix of aspects that is not easily
diagrammed, but essentially underlies the qualitative basis of perception.

Stein’s poetry produces interrelating webs of sensory features, which frame how
perceptual operations cannot be demarcated into pure categories like the visual, auditory, or
haptic. In “Dirt and Not Copper,” Stein shows sensory domains as modulating one another,
beginning with materiality triggering color, shape, weight, and sound. Returning to the
philosophical problem of where to derive the apple’s redness, Stein’s poetry demonstrates how
color does not exclusively operate through the visual domain. In fact, she shows us how the
redness of the apple re-contextualizes a series of other sensory aspects. The literary critic,
Michael Edward Kaufmann describes how Stein concentrates on the interconnections between
sensory details in his reading of this poem:

“Carafe” broaches the subject of perception that will concern her in [Tender
Buttons]…The ‘single hurt color’ of the carafe is actually the blended color of the glass,

12 Gallagher and Aguda reference William James’ musings about the archetypal apple’s redness
in The Principles of Psychology, in which he considers how about how even more factors, such as
the present state of the subject’s body, shape our perception of its color, “What it is like to
experience the redness of the apple, as William James pointed out, will be different if I’m hungry
or satiated; it will also be different if I am perceiving the apple in a room that is entirely red, as
opposed to perceiving it as ready for picking on an apple tree, and different still if I’ve just spent
the entire day picking apples. Our phenomenal experience is shaped not just by the apple’s
colour, the environmental conditions, or even the state of our visual system” (“Embodied
Phenomenology” 103).
its contents, and its surroundings. Its singularity partakes of an unsuspected, confusing
multiplicity, an observation which enables us to see that actual state of things – a
seeming unity composed of a multiplicity of details. (Kaufmann, “Gertrude Stein’s Re-
Vision of Language and Print in “Tender Buttons”” 450–451; emphasis in original)

Kaufmann accentuates “that actual state of things” to remark upon the particular qualities at
work that make each and every experience unique. He articulates the ways that Stein approaches
experience as contingent upon an abundance of qualities that interact with one another.

Kaufmann hones the idea of Stein blurring internal and external, by conveying how this blending
of sensation configures our perceptual experiences. Like the carafe, our sensations also
encompass both our internal “contents” and external “surroundings.” Our bodily container is
like the glass of carafe in both ways that Stein describes it, a site of refraction and reflection. That
is, our body jointly operates as the mediator of incoming information about the world, and the
apparatus we use to outwardly explore the world’s properties. This bidirectional approach will be
used in Part Two to unfold the sensing body through a focus on touch.

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13 This recalls James’ remark about the “teeming multiplicity of objects and relations” that
configures consciousness (The Principles of Psychology 1: 224)
Part Two:

Reading to Feel *Tender Buttons*:

The Haptic Poetics of an Embodied Mind

Skin on skin becomes conscious, as does skin on mucus membrane and mucus membrane on itself. Without this folding, without the contact of the self on itself, there would be no internal sense, no body properly speaking...Consciousness belongs to those singular moments when the body is tangential to itself.

Michel Serres, *The Five Senses*
“Lunch” – Three Feelings of Touch: Sliminess, Silkiness, and Wetness

Read *out loud*:

Lunch

A little lunch is a break in skate a little lunch so slimy, a west end of a board line is that which shows a little beneath so that necessity is a silk under wear. That is best wet. It is so natural, and why is there flake, there is flake to explain exhaust.

(Stein, *Tender Buttons* 31)

In the above passage from the poem, “Lunch,” Stein brings up three qualities that conjure distinct feelings of touch: wetness, silkiness, and sliminess. Each of these evokes a type of slipperiness. Wetness, silkiness, and sliminess, however, feel slippery for different reasons. Stein uses language that specifically evokes slipperiness through various tactile means. Each of the three is constituted by different sensory properties such as temperature, texture, shape, and density. This disposition to slip and move about the skin as we touch these objects confuses the boundaries between ‘toucher’ and ‘touched.’ This occurs in the tickling of silk on the body, the sliding of a wet soap bar from the hands, and the squirming of slime between the fingers. Stein’s poetic framing challenges the subject/object binary by considering materials that move across

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14 The Oxford University Press Dictionary even defines “slippery” as: “(of a surface or object) difficult to hold firmly or stand on because it is smooth, wet, or slimy.”
our bodies as we embrace them, and therefore provoke bodily sensations that we do not actively intend.

“Lunch” is emblematic of the ways that Stein uses poetry to produce multisensory effects for the reader. Her text is striking not only because it is challenging to track in a narrative progression, but also because her breaking of standard syntax evokes interactions between different senses. She writes, “…a little lunch so slimy, a west end of a board line is that which shows a little beneath so that necessity is a silk under wear” (Tender Buttons, 31; emphasis added). Stein refers to several qualities that situate the reader in correspondence to the objects of this poetic environment, in addition to the textural qualities of sliminess and silkiness. She mentions lunch, and therefore invokes sensations of taste and flavor, the word little occurs twice, indicating relations of size, as well as a complex spatial map which the reader traces between numerous verbal cues: west, end, line, beneath, and under. Under is separated from wear, which may be a way that Stein playfully includes under as a spatial signifiers, while simultaneously interrelating conditions of sexuality into this sensory realm, as in the sensual sensations arising from silk reaching intimate parts of the body. Stein often intentionally uses language in ways that can produce various dimensions of meaning. “Lunch” achieves this dynamism through its textual creation of an interactive sensory experience for the reader.

Stein’s nuanced examination of experience in Tender Buttons contemplates the depth and complexity within the feeling of touch. Her poetic invocation of slipperiness illustrates this with particular clarity because it imbues objects with a resistance to being handled or controlled, and a propensity to slip out of our clasp and unintentionally make contact with our skin. Stein’s tactile example of slipperiness is one way that her poetry playfully gestures at giving objects ways
of acting on us. She subverts the linearity of the empiricist’s idea of experience by portraying objects as having a kind of power to do things to the perceiver. Whether this effect is emotional or physical, it occurs through sensory channels. The sensation of touch provides especially robust opportunities for investigating this phenomenon across disciplines, which I will examine across research on haptic robotics to literary theoretical considerations of the role of texture. This section will take the three slippery qualities from “Lunch,” wetness, silkiness, and sliminess, as examples for the way that Stein uses the sensation of touch to blur interior and exterior margins of sensory experience.

Wetness is a condition that produces slipperiness. The presence of water in objects changes the way we touch them because an object that can be ordinarily held firmly, like a stone, slides and slips once wetted. Stein writes, “That is best wet,” and indicates a change in the surface condition. Wetness introduces other modifications like increasing the weight of an absorbent object or the emergence of new features such as enhanced luminance or the adhesiveness achieved by licking a finger to pluck a piece of paper. Wet objects can transform in shape and texture, like a sponge that changes from rigid and rough to pliable and squishy.

The feeling of silk on the body, which Stein evokes in “a silk under wear,” is a texture that is sleek and glossy. Silk produces the feeling of a delicate softness that one only needs to brush against to feel. It is slippery because its surface is so fine that it has little traction and easily slides across the skin, sometimes causing a quiver in the spine. One usually goes about touching silk in a manner that is gentler than approaches to other materials. It has developed a reputation for being luxurious and tasteful, but also sensual and seductive. It is difficult to divorce the physical surface quality from these contexts, as they are interrelated with its unique feeling. The
full body feeling of silken pajamas can be graceful and elegant, whereas the feeling of silky 
lingerie is sexy. Silkiness establishes ways that the experience of physical sensation is intertwined 
with our experience of emotional, sentimental, and aesthetic qualities.

In “Lunch,” Stein writes, “a little lunch so slimy.” This might mean that the food that is 
being eaten is slimy as in oysters, or seaweed, or egg yolk. She also invokes digestion and the 
sliminess of our internal bodies. As a texture, sliminess provides the quintessential materiality to 
consider how the realm of the tactile interrelates bodily and emotional responses. It viscerally 
demonstrates how sensory experience activates the subject, revealing to ourselves feelings and 
impulses, which we would not be conscious of otherwise. Phenomena such as desire and disgust 
are involved and integrated in a way that illustrates how we imbue objects with subjectivity 
through sensory experiences.

Sliminess refers to a substance that is viscous and sticky, which coats an object to keep it 
slippery. Something is slimy when it has secreted or discharged some ectoplasmic material. This 
coating is often gluey and thick and holds in moisture. Whatever the ooze entails, it can trail the 
object’s path as is the case for snails and slugs. Sliminess can also occur when there is residue of 
some mucky substance leading to mold or the contamination of infection. Many substances and 
organisms, however, are characteristically slimy like, algae, eels, passion fruit and papaya seeds, 
honey, mollusks, most eggs, resin, aloe vera, fungi, jellyfish, salamanders, and sap. Given the 
proliferation of slime and sliminess in nature, it is intriguing that a synthetic bright green 
substance has become prototypical. An online image search for “slime” confirms this. Many top 
hits are images of hands grabbing and kneading this emerald goo that hyperlink to posts detailing 
how to manufacture slime for your kids at home. This sensory fascination of bright color, soft and
stretchy or wet and sludgy touch, and weird and grotesque disposition of something rather mucoid, has led to the creation of this cartoonish and sensational take on sliminess. This allure has inspired the cable network Nickelodeon to brand the theme of green slime splatter. It is used in marketing from graphic logos, to the promotional dumping of slime onto actors, to slime that is sold in stores, and to the opportunity to be “slimed” at their Orlando hotel. The legacy of this juvenile slimy beguilement traces back at least as far as Dr. Seuss’ 1949 Bartholomew and the Oobleck where Bartholomew must save his kingdom from “the Oobleck,” a green sticky slime that falls from the sky. Many of the words we have to describe sliminess conjure up this very caricature as does the term, “Oobleck”: gooey, goop, gunk, gook, guck, and gloop.

In Tender Buttons, Stein is studying and detailing her own subjective experience of touch and surfaces, and as her invocation of these three slippery textures demonstrates, the process of reading her text produces robust tactile effects for the reader. Although she is not generating empirical information, her writing is engaged in the same problematic as the scientist who is trying to figure something out about the nature of sensing touch. This phenomenon is larger than either a scientific or poetic set of knowledge practices. Stein pays attention to the way that experience involves multisensory interactions, which will be demonstrated in a close reading of the poem, “A Feather,” to show how perception does not process all content through singular channels. Writing in 2012, Scientist Terry J. Bossomaier describes a corresponding scientific perspective that is now emerging, “Until the last decade the senses tended to be studied largely independently...the widespread cross-modal interactions now becoming apparent were scarcely

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15 Heather Hendershot writes in Nickelodeon Nation: The History, Politics, and Economics of America’s only TV Channel for Kids about how “the ever-present danger of getting ‘slimed’ by green goop...and other messy approaches to entertainment soon became the brand trademark of Nickelodeon” (Hendershot, Nickelodeon Nation 48).
mentioned” (*Introduction to the Senses: From Biology to Computer Science* 30). Stein’s writing, however, offers an opportunity to examine issues of perception in a context that is outside of the normative boundaries enforced by empirical research. This is not to say that science is therefore inferior, but rather that it comes with intrinsic limitations. Stein’s examination of touch within *Tender Buttons* provides an important insight into the associative network linking sensory experience, which is in dialogue with scientific knowledge.
Reconfiguring the Senses

To specifically address how Stein’s poetry exists in relation to the science of touch, a broader perspective is required to examine the ways in which the different senses are defined, and how they relate to one another. Stein resists the empirical attitude that essentially regards the senses as a means for information gathering. For example, neuroscientists Steven Hsiao and Manuel Gomez-Ramirez introduce their chapter on the sensation of touch with the definitive statement, “All sensory systems face the same challenge: how to extract salience, or meaning, from afferent input,” *(Neurobiology of Sensation and Reward nih.gov).* It is true that all animals, including humans, use sensory information to process the world around them. The capacity of sensory experience, however, becomes diminished by exclusively explaining the senses to be tools that we use to gather information. This recalls William James’ complaint about the empiricists having a “paltry” representation of experience.

Hsiao and Gomez-Ramirez empirically position sensory experience to be the process through which the mind learns about its reality by “extracting meaning” that preexists in the world. Their claim echoes Steven Meyer’s comparison of research science to analytic geometry, “that is, as a matter of ‘bringing out the valuable results which evidently lie in the material’” *(Meyer, *Irresistible Dictation* 92).* This take on perception is at odds with that of James and Stein because it reinforces empiricism’s foundational idea of the mind as a blank slate that is impressed upon by the information it gathers from its senses. James responds to this by pointing to the complex of associations that exist between external objects, and internal processes. Stein brings this to life in poetic description. In “Lunch,” she shows us the interactivity between materiality that can produce slippery sensations and the embodied subject who feels the “silk under wear”
tingling on their skin. In “A Substance in a Cushion,” Stein writes, “Callous is something that hardening leaves behind what will be soft…” (Tender Buttons 3; emphasis added). Using the word callous to describe an object attributes both meanings of hardened skin and the sentiment of insensitivity. Like the “Blind Glass,” Stein again attributes human qualities to an object, but this time she directly recognizes its fleshiness, which recalls the introductory question about how the word tender operates within Tender Buttons. The taxonomy of domestic objects in Stein’s poetry does not just include descriptions of surfaces; it is always in reference to how it will feel to tactically engage with these. A haptic poetic reading of Stein’s poetry is necessary to engage how she is not just marking observations, but rather producing descriptive simulations of experience that create a felt space, where our flesh overlaps with the flesh of the objects16, through textual effects of visceral sensations.

As Stein’s poetic simulation of experience is always transforming and opening up to a multitude of sensory possibilities, it is important to conceive of a less instrumentalizing definition of the senses. There is a beautiful example of Steinian sensory complexity in the communication between organisms, which involves the sharing and exchanging of information and meaning across creatures that engage with sensations in a variety of ways. For example, animals can produce spatial representations using sensory channels that range from visual sight in humans, auditory echolocation in bats, tactile uses of whiskers in seals, and olfactory scent mapping in mice. This variance across perceptual processing does not just reflect many forms of information gathering, but to a greater extent, this diversity provides avenues for different species to send signals and communicate across all platforms of life. According to Bossomaier,

16 I am not the first to consider the idea of fleshy objects. Jean-Paul Sartre discusses how he discovers “something like a flesh of objects” in Being and Nothingness (Sartre 509).
“Specialised tuning for animal communication is widespread throughout nature.” Many species use “chemical signals such as the pheromones” to coordinate mating, and sensory signaling occurs across species, as “symbiotic development of colour in flowers and insect visual systems” is used “for optimum pollination,” and “danger signals” manifest in “the bitterness of alkaloids in plants or the bright colours of the coral snake” (Bosomaier, *Introduction to the Senses* 1–2). This bidirectional flow of sensory information is an essential approach to sensory perception. Framing the senses as communicative underlines the complex exchange of information between perceptual systems and their surrounding environments.
Situating Touch and Haptic Perception

With this understanding of the general framework of sensory perception and its integration, I will now focus on the main subject of tactile sensation. Although touch is a member of the archetypal ‘five senses,’ along with sight, smell, taste, and vision, it is actually a subset of a larger sensory apparatus: the somatosensory system. In addition to touch, the somatosensory system is also responsible for the sense of the internal body, and a contributor to the vestibular system (coordinating the body’s balance and movement). The term ‘touch’ is used to describe feelings of the body’s surface, however there are many ways we can perceive touch in relation to an external stimulus. When the trailblazing ecological psychologist James J. Gibson published *The Senses Considered as Perceptual Systems* in 1966, he argued for a new way to conceive of the senses that would confirm them to be actively perceptive, and not mere reactive trackers.

Gibson’s mentor, Edwin B. Holt studied under William James, and consequently Gibson’s psychological views descend from James’ philosophy of radical empiricism. Harry Heft, an environmental psychologist and a William James scholar, explains, “…radical empiricism stands at the heart of Gibson’s ecological program” (Heft, *Ecological Psychology in Context: James Gibson, Roger Barker, and the Legacy of William James’ Radical Empiricism* xvi). Like James, Gibson suggests that experience is embedded in a complex and interdependent set of relations between perceiver and the environment being explored. He presents the senses “as active rather than passive, as systems rather than channels, and as interrelated rather than mutually exclusive” (Gibson, *The Senses Considered as Perceptual Systems*, 47).

Haptic perception is the active form of touch, as it is very often probing and manipulative. Gibson clarifies, “The skin and deeper tissue can be stimulated without movement
of joints or muscles. This would give perceptions of cutaneous touch. The skin and deeper tissue can be stimulated together with movement of the joints. This would yield perceptions of haptic touch” (Gibson, The Senses Considered as Perceptual Systems 112). A feather that is moved across the hand would produce cutaneous touch, but the hand can also haptically grasp and handle the feather to explore properties like size, smoothness, lightness, and flexibility. More recently, the term “tactile” is used to describe cutaneous or non-active touch. It is important not to split active and non-active into a mutually exclusive binary because haptic touch always includes cutaneous stimulation; we feel the feather in both scenarios. As Stein reveals in Tender Buttons, this twofold experience of touching and being touched importantly blurs the internal and external directedness of sensory information.

Somatosensory receptors are nerve cells that are dispersed throughout the body, and specialize in responses to the different properties of touch. For example, the cutaneous Merkel receptors, which are clustered in the fingers, respond to “a complex mixture of pressure and curvature of surface” (Grunwald, Human Haptic Perception, Basics and Applications 252). The tactile system greatly varies in its functionality, or as Bossomaier notes, “[it] is almost like several senses all rolled into one.” He organizes the four categories of somatic information as: 1) Thermal sensations, which can be hot, cold, or chemical (“like chilli and mint, which induce thermal sensations”); 2) Pain, which signals danger or hazard; 3) Proprioceptive signals, which refers to the positioning and coordination of limbs; 4) Exteroceptive signals, which convey information about any stimulus that are “external to the body acting on the skin” (Bossomaier, Introduction to the Senses 249–250). These capabilities provide a basis for specifying the features that are haptically available. Haptic perception entails “a complex of sub-systems,”
which encodes for the different properties of objects with which we interactively engage. Gibson breaks these down into three groups: dimensions of shape (“proportions, slopes and edges, or curves and protuberances”), surface properties like texture, and “material variables like heaviness or mass and rigidity-plasticity” (Gibson, *The Senses Considered as Perceptual Systems* 47; 123).

Although *haptic* indicates *active* touch, these perceptions take place in both aware and unaware states. The brain preserves the resource of attention by not consciously attending to each property being tracked at all times. While you might not attend to an object’s temperature while holding it, you would notice if it suddenly became warmer or colder, which is an indicator that temperature is always being sensed. Shaun Gallagher and Benjamin Aguda claim that unaware sensations also play a constitutive role in shaping phenomenal consciousness. In an example from philosopher Ned Block, a person doesn’t notice the noise of drilling in the background until it is turned off, and then realizes they had in fact been hearing it all along. Gallagher and Aguda state, “In this case, the noise of the drill, even if not part of access consciousness, was part of the phenomenal aspect — likely if the noise stopped one would immediately notice it as a difference, and in that case, the noise made a difference in one’s experience even before noticing it” (Gallagher and Aguda, “Embodied Phenomenology” 96).17

In considering how Stein’s poetic simulation of experience signals phenomenal consciousness, it is important to clarify how the sensations that can shape an experience may not be obvious. Stein describes her process in *Tender Buttons* as arising from a need to “completely face the difficulty of how to include what is seen with hearing and listening” (‘Portraits and

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17 Although Gallagher and Aguda make this argument, not all philosophers agree that being sensitive to this type of sensory transience implies a change in phenomenal awareness.
Repetition,” *Lectures in America* 189). She is deliberately trying to connect the breadth of senses that are at play in every experience with or without awareness. For example, in the poem, “A Feather,” these nuances of Stein’s poetic description are helpful for demonstrating these very dynamics. Stein writes,

A feather is trimmed, it is trimmed by the *light* and the bug and the post, it is trimmed by little leaning and by all sorts of mounted reserves and *loud volumes*. It is surely *cohesive*. *(Tender Buttons* 14; emphasis added)*

Stein indicates how light and sound ‘trim,’ or shape, the perception of the feather. The cohesiveness she describes is the culmination of these sensory forces in constituting the experience, however it seems curious why sound would play a role. Stein points out that the essence of this moment is not based only upon overtly presented criteria but is inclusive of other sensory phenomena of which one is not consciously aware. Much like Gallagher and Aguda describe, the fact that we are not attending to sound does not mean there is no audible quality that structures what it is like to have a particular experience.

The diverse array of ways to sense and encode information about the world is at the root of our ability to have dynamically unique experiences. One moment can never be exactly like any other because each is constituted by a flux of variables. In an example for the sense of smell that corroborates this point, “there are around 1000 receptor proteins, yet we can discriminate around 10,000 odours. So receptor signals *are* combined in some way to produce composite sensations” (Bosomaier, *Introduction to the Senses* 16). We can combine receptor signals within each sense, to yield an incredible magnitude of distinct possible sensations. The quantity
of potential experiences, which are based in permutations of these sensations, multiplies near interminably. The fact that we have lived experiences that are so dynamically unique is predicated upon the qualitative particularity that our sensory channels provide.\textsuperscript{18}

In the history of the perception of touch, the German psychologist, David Katz, stands out as an early scientist who spoke out against laboratory research’s inability to replicate the nuance of genuine experience. His outlook aligns with the model of the mind that Gertrude Stein provides in her poetic science. Katz, who was “an early important source in the study of texture,” was also skeptical about the traditional scientific practices of his time (Grunwald, \textit{Human Haptic Perception} 211). In his 1925 paper called \textit{The World of Touch}, he disapproved of “the separate analysis of individual stimuli and singular phenomena in an artificial laboratory environment,” which, “merely examined ‘artificial products’ and rarely the real world and its condition.”

Grunwald cites Katz’ disdain for his time’s classic experimental design, “He commented ironically on the single stimuli studies of his colleagues: ‘Most people will probably die without ever having experienced the irritation of an isolated pressure or warmth point’” (Grunwald, \textit{Human Haptic Perception} 27). Katz’s commentary about the failure of the “artificial laboratory environment” evokes Stein’s departure from research science and relocation to poetic exploration. He identifies a discrepancy that reveals how little single stimuli\textsuperscript{19} experiments share

\textsuperscript{18} William James writes that a sensation is never exactly experienced twice. According to James, if it seems like two experiences are the same, this means you have mistakenly perceived the same object and are not paying enough attention to internal feelings: “What is got twice is the same object... Every thought we have of a given fact is, strictly speaking, unique, and only bears a resemblance of kind with our other thoughts of the same fact” – need to do some work here to connect object and thought” (James, \textit{The Principles of Psychology}, 1: 231-233).

\textsuperscript{19} Gibson offers a helpful articulation of how the notion of an experimental stimulus defies a certain kind of embodied logic, “The word \textit{stimulus} is widely used in psychology, in physiology, and in everyday speech, but with a variety of meanings. It is perhaps most commonly used in
with the content of actual lived experience. Stein’s poetic science, which beckons the subjective dimensions of experience that cannot be ascertained by purely observation-based study, relates to Katz’s research approach of a “phenomenological-experimental methodology.” His practice entailed integrating empirical calculations with testimonials from his subjects (Grunwald, *Human Haptic Perception* 27). This aligns with William James’ critique of traditional empiricism: singular sensations are as important as the associations that connect them, and must be included in a model of perceptual experience. As a precursor to Gibson’s differentiation between active and passive touch, Katz “discusses the importance of movement in touch perception” in his “phenomenological analyses of tactual experience,” to address “everyday tactual capability” (Massaro, Review of *The World of Touch* 147-148). Stein takes Katz’s concerns seriously in her multidimensional approach to experience in *Tender Buttons*, which considers the perception of touch as a capacity of the interactive body.

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psychology to signify an object of some sort that is *presented* to or *applied* to an individual, rat or human, in a psychological experiment...The living animal is stimulated not only from sources in the environment but also by itself. Its internal organs provide stimulation, and so do the movements of its extremities and sense organs or feelers, and the locomotor movements of its whole body through space” (Gibson, *The Senses Considered as Perceptual Systems* 28-31).
Thinking through Feeling: Considering Embodied Cognition

An examination of the perception of touch requires an understanding of the human mind and its dependence upon embodiment. In the intellectual history of sensory experience and cognition, it is only recently that the senses have been attributed the capability of perception. As evident in the title of his book, *The Senses Considered as Perceptual Systems*, Gibson pushes back against the argument that perception depends upon mental components like conception and belief, and therefore, that it does not require intellectual involvement. Katherine J. Kuchenbecker, who oversees the Stanford GRASP lab (General Robotics, Automation, Sensing, and Perception), explains, “It’s actually much harder to make a chess piece move correctly – to pick up the piece and move it across the board and put it down properly – than it is to make the right chess move” (Gopnik, “Feel Me” 65). This powerful sensorimotor processing requirement highlights the depth of qualitative information that is crucially understood through realms of sense. This example displays this scope through haptic manipulation, which includes a certain kinesthetic flexing to grasp, a particular magnitude of pressure to hold, and an optimal motor speed to move. These findings disrupt the long-held ideology that higher-level tasks, such as making the right chess move, are inherently more advanced and complex than lower level ones, such as moving an object. This derives from the dualistic outlook first propagated by Descartes, which privileges the operations of the mind from those of the body. This Cartesian approach was embraced by the pioneers of cognitive science in the 1950s, and in this context is known as cognitivism. In “Embodied Cognition: a field guide,” Michael L. Anderson explains how the legacy of dualism separates the physical realm, on grounds of animalistic baseness, from the
rational and enlightened human mind. Anderson shows how the foundational cognitivist discourse about the mind is problematically influenced by this philosophical view:

This denial that sensing and acting in the world require thinking, and the concomitant identification of thinking with the higher-order reasoning and abstraction paradigmatically displayed in language use is perhaps the true heart of the Cartesian attitude. Indeed, I believe that it is primarily from this inheritance that the central attitudes and approach of cognitivism can be derived. (Anderson, “Embodied Cognition” 93)

Many scientists and philosophers have come out against this foundational framework of the mind. One response that developed as an opposing outlook on the roles of mind and body is the notion of embodied cognition. This argues that the mind’s capabilities are highly dependent upon embodiment.

Support for this perspective draws upon recent advancements in the study of haptic and tactile perception. Many recent experiments have prompted the need to refocus the relationship between mind and body. An emerging scientific understanding of tactile operations portrays the human experience through an embodied, and very interactive, consciousness. In Adam Gopnik’s article, “Feel Me,” he articulates how certain activity, which has been traditionally understood as cognitively ‘higher level’, is finally being attributed to the body, or as neuroscientist David Linden summarizes, “our entire skin is a sensing, guessing, logic-seeking organ of perception, a
“blanket with a brain in every micro-inch” (Gopnik, “Feel Me” 58; emphasis added). In light of this, human haptic perception has been grossly underestimated. There are so many specialized sub-systems of touch that integrate a wide range of sensory receptors and neurons to produce unique experiences.

In Stein’s contemplation of slipperiness in her poem, “Lunch,” she too invokes the complex haptic interactivity within the reality of simultaneously touching and being touched. In the earlier discussion of slime, an intrigue emerges from the desire and repulsion towards touching and handling a novel green substance, and there is great satisfaction in feeling the cool semifluid slip between the fingers as one squeezes with increasing pressure. It is as though during the process of clasping the ball of slime, it slips around the hand and touches us back in places we were not intending to make contact. This idea invokes the image of the blanket that Linden uses to describe touching, and resonates with philosopher Michel Serres’ notion that “Skin on skin becomes conscious, as does skin on mucus membrane and mucus membrane on itself...Consciousness belongs to those singular moments when the body is tangential to itself” (Serres, *The Five Senses: A Philosophy of Mingled Bodies* xiv). The ability for skin to crease and

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20 Linden’s image of the body as “a blanket with a brain in every micro-inch” resembles a comment that William James makes in reference to the embodiment of emotion, “Our whole cubic capacity is sensibly alive; and each morsel of it contributes its pulsations of feeling, dim or sharp, pleasant, painful, or dubious, to that sense of personality that every one of us unfailingly carries with him” (James, *The Principles of Psychology*, 2: 451).

21 Sartre has his own well-known discussion of the slimy and viscous in *Being and Nothingness*. “The slimy” is peculiar and sometimes frightening to us because we cannot control it in the stable manner we approach and dominate non-slimy objects. To touch “the slimy” is always “to risk being dissolved in sliminess...From the moment of its appearance [the slimy] transcends all distinctions between psychic and physical...” (Sartre, *Being and Nothingness*, 777-9).
fold on top of skin, making contacts with itself and objects through such interlayered proportions is at the crux of a cognition that is intrinsically embodied.

We have seen how haptic touch, which is kinesthetic, relies upon specific pressures to explore different objects. Pressure is a bidirectional site for both incoming information and outputting motor modulation. Gopnik explains, “We know instantly, just by touching, whether to gently squeeze the toothpaste or crush the can” (“Feel Me” 56). The human subject does not merely perceive objects of the environment like a fly on the wall. As Gibson originally argued in 1966, our sensational understanding of the world is active.

There is a natural interplay between pressure and texture. In a metaphor about sound being derived from a needle moving through the patterns of an engraved vinyl record, Gopnik writes, “pressure is tone, and texture melody” (“Feel Me” 65). In her lab, Kuchenbecker uses a haptic camera, which is a device that “includes sensors to measure three axes of force, position, and orientation, and high-frequency acceleration while it is dragged across a textured surface” (Culbertson and Delgado, “Haptography: Capturing and recreating the rich feel of real surfaces” haptics.seas.upenn.edu). Using this, she artificially reproduces texture by recording ten seconds of various experiences of touch, but with each measurement making up 50-100ms of touch. This portrayal of texture relying upon a specific array of sub-components resonates with the reading of texture that the literary critic and queer theorist Eve Kosofsky Sedgwick22 offers in the introduction to her collection of essays, *Touching Feeling: Affect, Pedagogy, Performativity*. Sedgwick highlights texture as inherently scalable, therefore relying on the integration of patterns of smaller levels to give rise to larger platforms. Sedgwick helps to underscore how an

22 Before her death, Eve was married to Hal Sedgwick, who was one of Gibson’s last graduate students.
exploration of haptic perception through modes, like texture in Stein’s writing, can more specifically engage her ability to describe the multi-dimensional depth of experience.
Qualities of Texture

Texture is a subset of the exteroceptive signals that are tracked in haptic perception, which is a sub-type of touch, and therefore a component of the somatosensory system. There are sub-sub-features that are conveyed through the perception of texture such as surface quality (like smooth/roughness) to aid in object identification, and object orientation (like angle, slope, and proximity) to coordinate its spatial location. Texture conveys this extensive range within the ways we encode the feeling of touch. In her poetic description of experience, Stein uses language to represent the array of sensory possibilities and focuses on the way that feeling emerges through the associations between these features. This is particularly evident in the experience of texture. For example, texture arises from the assemblage of the feather’s barbs, and not the summation of each individual fiber. If the feelings of touch are intelligent, as Kuchenbecker explains, they are always guessing and responding to the environment. The perception of texture operates within haptic intelligence by influencing the ways we go about interacting with an object based on what it feels like and proximity to the perceiver.

Texture can provide spatial depth cues because of its inherent scalable character. It therefore relies on the integration of patterns of smaller levels to give rise to larger platforms. Bossomaier explains how we “must first make some judgments about the individual elements, the texels, which make up a surface. As a surface gets further away, the texels get closer together” (Bossomaier, Introduction to the Senses 172). Texture is subject to change depending on distance. For example, when flying over a forest, texture describes a full field of trees, but when

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23 Although this example refers to visual texture, this commentary is relevant to texture in haptic touch as well. As will be explained in “Multisensory Textural Perception,” the dynamics of texture reveal the complex intersections between different sensations.
on the ground, one tree becomes the full structure and its texture is the bark of its trunk. This example of texture meaning different things at different measurements of space is important for understanding how the perception of texture is as much influenced by the properties of the percept as it is by the perceiver. This relativity to the human subject demonstrates how the external environment that we perceive is not entirely independent from our minds. When Meyer describes scientific empiricism as being modeled after the precision of analytic geometry, he exposes the presupposition that some true reality preexists which we then input as exact measurements through sensory experience (Meyer, *Irresistible Dictation* 92). Stein challenges this outlook in her poetry, which is why her model of perception better aligns with the interactive framework of “sensory communication.” Sedgwick corroborates, “Although texture has everything to do with scale, there is no one physical scale that intrinsically is the scale of texture” (Sedgwick, *Touching Feeling* 16). The perception of texture therefore demonstrates that there is not a concrete set of information, but rather a bidirectional flow that is shaped by both the perceiver and the environment.

As texture has been analyzed from both the perspectives of research science and literary theory, this discourse resonates with Stein’s production of haptic and tactile effects in *Tender Buttons*. These approaches interlace to shape a wider-reaching understanding of the sensation of touch. From the empirical perspective, texture is principally thought of as a certain quality of an object’s surface. Bosomaier defines it as, “properties of surfaces which help in identifying objects often rapidly.” The three categorical binaries of surface textures he outlines are smooth/roughness, hard/softness, and sticky/slipperiness. The latter, sticky/slipperiness, has “only recently become recognized as an independent surface dimension” (Bosomaier,
Introduction to the Senses 189; 269). On the other hand, Eve Sedgwick thoughtfully elucidates the challenging character of texture, as having both material and theoretical components.

Sedgwick protests this empirical classification in a similar vein as James and Stein, and even calls the taxonomic style “tacky.” She suggests the contexts of textures to be at once physical, relational, historical, and emotional. While these portrayals stem from opposing disciplines, they jointly contemplate texture’s uniqueness as a perceptible property that is established by an object’s materiality.

Bossomaier and Sedgwick agree that texture has an elusive form, which is defined by some pattern of its features that is not located in the material substance itself. Bossomaier even confesses, “the precise characteristics of what makes one texture preattentively discriminable from another are still not fully understood, despite over three decades of work” (Introduction to the Senses 215). This recalls the problem of thinking how slipperiness, one of Bossomaier’s sets of authorized texture categories (sticky/slipperiness), is productively complicated in Stein’s text to encompass the distinct forms of silkiness, wetness, and sliminess. These mechanics of texture that are troubling for scientists, can be better explained by James’ radical empiricism. Relations between sub-features constitute the experience of texture, like the way the feeling of a feather emerges from the relational composition between its barbs. This exemplifies the associative composition of experience that James argues is manifest in all sensory experience. Similarly, Stein’s feeling of slipperiness, as in that of “silk under wear,” manifests from both its woven fine

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24 Although Bossomaier doesn’t mention this, there is a scientific understanding of texture as depending upon the relations between the scale of the surface texture and the scale of the sense organ. When Sedgwick writes about the relational capacity of texture, however, she goes even further in complicating the ways in which texture interrelates dimensions of an embodied subjectivity.
pattern as well as the particular cluster of stimulated somatosensory receptors that tingle when it moves across the skin.

In her opposition to an empirical methodology of texture, Sedgwick offers a logic that also illuminates this conceptual obstacle in research science. Sedgwick acknowledges that it is “far easier to deprecate the confounding, tendentious effects of binary models of thinking...than it is to articulate or model other structures of thought. Even to invoke nondualism, as plenty of Buddhist sutras point out, is to tumble right into a dualistic trap” (Touching Feeling 2).

Sedgwick’s reading of texture resists the urge to construct a sensory imaginary where things must fit into categories of surface textures (i.e. smooth/roughness), which are always diametrically opposed. Her admiration for being able to actually “articulate or model other structures of thought” gestures towards the creative project that Stein takes on in Tender Buttons. Although Stein also dissents from Enlightenment ideals like dualism, as described by Meyer and also Kirsch and Boyd, she does not explicitly quarrel with it in her writing. Instead, she accomplishes what Sedgwick says is most difficult. She produces content that exists in an original space, which meets Sedgwick’s criteria for nondualism, but still draws upon and reformulates scientific knowledge.

Even Stein’s evocative title, Tender Buttons, plays with textural relations to dynamically signify meaning. ‘Tenderness’ conjures up a specific quality of softness that is both emotional, as in warm, affectionate, and gentle, as well as physical, as spongy, fleshy, and malleable. Buttons can mean different things as well, such as objects that fasten things like garments, or objects that are pushed to initiate certain functions like electrical circuits. Regardless, buttons can be tactile objects that are haptically touched, which could mean they are pressed, handled, tapped, twisted,
fondled, tugged, pinched, or fiddled with. In any of these circumstances, buttons are things that can feel so many different ways, whether they are hard like steel, fleecy like velvet, or smooth like glass, with each of these textures informing the different ways they is touched. The subjective dimensions of buttons range from the anxious connotation surrounding the trigger of the emergency button to what it means to provocatively push someone’s emotional buttons. The button as a transitional site, which signifies some process becoming activated, is also true for buttons that fasten and unfasten. Stein shows us that we do not just perceive a set of information that describes the way an object is, as the empiricist would have us believe; instead, the way an object is determines how we go about perceiving it, and meanwhile, the ways that our embodiment allows us to perceive shapes the information that we integrate across material and affective dimensions. The words, “Tender Buttons,” constructively blur inner and outer dimensions of experience by tracing this interactive network of associated features.
Multisensory Textural Perception

Texture’s involvements in senses other than touch, like the visual texture of trees from an airplane, are not separable sensations in Stein’s poetry. As was discussed in the correspondence between sight and sound in “A Feather,” Stein is always considering the ways that the experience of objects is produced by an interface of multisensory modalities. This is perhaps most apparent in, “A Piano,” where she lists sensory conditions impacting her experience of this object.

If a speed is open, if the color is careless, if the selection of a strong scent is not awkward, if the button holder is held by all the waving color … (Stein, Tender Buttons 9)

This description of the button holder caught up in a chain of perceptible properties, i.e. motion, color, and scent, illuminates the way Stein is thinking about what buttons are capable of being and doing. The button is an object that is felt by its “holder.” Stein, however, expands this feeling from the domain of touch to include perceptions of vision, olfaction, and motion.

The multisensory scalability of texture can be demonstrated between the ways that the visual and haptic systems engage texture in different scales. While sight is better equipped to perceive the texture of large scales, the texture of small scales can be much better assessed through touch. Grunwald notes that the “visual advantage may disappear when surface irregularities are very small. For finer textures, touch holds advantages” (Human Haptic Perception 212). Grunwald describes occurrences of circumstantial superiority, however this does not preclude that vision and touch are constantly engaging with different levels of information about texture.
While research on the multisensory capacity of texture has tended to focus on the relationship between touch and vision, this phenomenon extends across all other senses. For example, “when we hear the brush-brush of corduroy trousers or the crunch of extra-crispy chicken” (Sedgwick, *Touching Feeling* 15). The makings of texture therefore recruit aspects of sensation that cut across the senses. This clarifies Sedgwick’s comment that, while texture is sensationally salient, it does not present itself overtly like a shape or structure might, and instead operates on the level of feeling because it is experienced throughout different senses.

Recent cognitive scientific evidence has emerged that coincides with Stein’s inclusion of “the selection of a strong scent” in her poetic list of interfacing senses. Scientists are beginning to grasp how combinations of sensations like texture and smell can be formative to our experience of objects. In 2007, M. Luisa Demattè, Daniel Sanabria, and Charles Spence examined the relationship between olfactory and tactile perception, by asking subjects to discriminate between textures and odors that were presented simultaneously. The smells of lemon citrus or an animal stench were presented alongside either a soft or rough fabric. The subjects were asked to discriminate between the two odors in the presence of one fabric, and also between the two fabrics in the presence of one odor. The fastest associations occurred when the smell of lemon and the soft fabric were paired together, and when the smell of animal and rough fabric were paired. The authors report, “These results provide the first empirical evidence that olfactory-tactile cross-modal associations are stable enough to influence performance even when not directly relevant to a participant’s task” (Demattè et al., “Olfactory–tactile compatibility effects demonstrated using a variation of the Implicit Association Test” 332). This ability for internal connections between texture and smell to associatively impact our perceptual
performance demonstrates the point that James makes when he advocates for experience emerging from the relationships between individual features.

The possible permutations of sensory combinations amount to a nearly infinite number of potential phenomenal states, which could make every perceptual instance qualitatively unique. In addition, the act of combining one sensation with another does not just produce the presence of both, but rather the possibility of an entirely new sensation. Bossomaier explains that “the texture and the surface properties of things we put into our mouths is also as important as the taste; the tongue has close integration of touch (texture) and chemical (taste) receptors, probably a tighter coupling than almost any sense, leading to the complex mixture of sensations in the things we eat” (Bossomaier, Introduction to the Senses 248). This articulates how complex experiences, like tasting food, are based in the mixing and modulating of sensations. Demattè et al. (2007) show that certain combinations of cross-modal pairings inform the way that we perceive. Citing one of their 2006 experiments, this team provide evidence that fabrics are perceived as “feeling softer when presented together with a lemon or lavender odour than when presented with an ‘animal-like’ odour” (Demattè et al., “Olfactory-tactile compatibility effects” 333). If the presence of certain sensations can adjust the experience of others, the network of sensory qualities that are perceived (with or without realization) is not a stable mappable entity, but rather a matrix that is in a constant state of flux. This image resonates with Pamela Hadas’ description of Stein’s poetry, “we are liberated from the objects themselves by an atmosphere of play, between them as well as between them and her, which associates and transforms” (Hadas, “Spreading the Difference” 60). Stein’s poetry simulates this capacity of experience precisely because she uses language in a way that represents an inter-relational and fluctuating system.
The inherent multimodality that exists throughout all perceptual experience creates balances of temporal, as well as spatial, dynamics that are at play in Stein’s poetic perceptual experience. Our senses have unique relationships to space and time, for example we cannot see a close by object without light, but we can perceive smell or feel pain even when the stimulus is far away, and a long time gone. Stein insists upon remaining in “the continuous present,” where she does not consolidate an array of evolving perceptions onto one temporal point. The mutating nature of the elements constituting experience raises a temporal reconsideration of experience. The haptic perception of texture occurs when we move our fingers across a surface, and this is an event that occurs in time. The speed with which we stroke something will change the texture we feel. Philosophers Alva Noë and Evan Thompson concur, “The perceptual experience of the scene cannot be thought of as a snapshot-like occurrence. Rather, it is a temporally extended process of attentive engagement, and the content of experience is brought forth or enacted by this activity” (Noë and Thompson, “Are There Neural Correlates of Consciousness” 17). If there is such a robust interface between multisensory properties, it stands to reason that a snapshot-like structure would be reductive.

Stein deliberately experimented with language to explore multimodal interactions that would produce a realistic spatial representation of experience. Meyer comments upon a 1928 letter, in which Stein reports upon her explorations of relations between words:
...words are ‘join[ed] together in functional multi-word units’... [Stein] ‘correlated sight, sound and sense;...to achieve ‘completed composition...through the study of the relations of words in meaning sound and volume.’ This meaning of the volume of words, reiterated more than twenty years later, suggests that she conceived of words, like cells, as existing in three-dimensional space rather than two-dimensionally on the page or the microscope slide. (Stein qtd. in Meyer, *Irresistible Dictation* 81)

Stein’s recreation of experience in poetry aligns with our experiences in the world precisely because she is so intentionally multisensory. Experiments that only focus on singular modalities might imitate certain aspects of perception, however they do not recreate the associative cohesion that constitutes true lived experiences. Grunwald confirms, “We live in a multimodal world, and it is rare that we are artificially constrained to a single modality” (*Human Haptic Perception* 218).
Affect and *Texxture* beyond the Surface

When we think of something being wet, this can mean it is fresh and clean, juicy and succulent, limber and flexible, dank and musty, or steamy and lustful. Similarly, something that is silky could signify being glamorous and suave, flamboyant and flashy, decorative and ornamental, or sultry and risqué. These qualities blend sensation with affect and communicate possibilities for interactive or performative pleasure.

While scientists concur that affect plays a particularly robust role for touch, the scientific definition of texture as surface property does not go far enough in conceiving of how particular feelings are causally related to the kinds of touch we experience. Scientific evidence shows that touch is directly wired to emotional areas in the brain, “People have more positive interactions with others if they receive light, even unnoticed, gentle touches” (Bossomaier, *Introduction to the Senses* 247). This does not explain, however, how different surfaces can induce distinct forms of pleasure. According to Sedgwick, an empirical definition of texture is “always a qualitative misrepresentation” (Sedgwick, *Touching Feeling* 21). Much like Stein, Sedgwick breaks from scientific norms to investigate and develop sensory experience of texture according to subjective criteria.

Gallagher and Aguda propose a cognitive phenomenological perspective that underlines the complexity of affective embodiment. As human subjects, we do not attach affective connotations to perceptual information after the fact, but actually, “see objects through their affective value for us.” The evidence supporting the affective prediction hypothesis demonstrates this phenomenon:
...before we fully recognize an object for what it is, our bodies are already configuring themselves in overall peripheral and autonomic patterns that have prior associations with the object...Affective predictions are made quickly, milliseconds after visual sensations register on the retina. (Gallagher and Aguda, “Embodied Phenomenology” 97)

These changes include heart and breath rate, stomach motility, and sensorimotor activation. This framework explains how phenomenal consciousness is necessarily modulated by emotional states that are integrated with the somatic system, e.g. the way fear is enmeshed with rapid heartbeat. These changes in the body rebalance the subject’s phenomenal state demonstrating how the sensation of touch and affect are effectively inseparable.

Throughout history, this combination of the sensation of touch and affect has always been connected to desire and sexuality. As texture always includes the affective dimension of touch, different surfaces can elicit different forms of desire, such as visceral fascinations and fetish. Grunwald recalls, “…it was first Eve who touched the apple when she seduced Adam. In this way, the haptical perception became a symbol of eroticism as such” (Human Haptic Perception 6). Sedgwick is influenced by the queer theorist Renu Bora’s perspectives on texture as a vehicle of fetish. This is certainly true for materials like leather, metal, feathers, but it also extends to the textures of objects that are not explicitly erotic, like the glossiness of a brand new car. Bora distinguishes the empirical definition of texture, that is surface property, from teexture,

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25 As discussed in Part 1, the notion of the embodiment of emotional qualities originates in the James-Lange theory of emotion. As James describes, “Our feeling of the [bodily] changes as they occur IS the emotion” (James, The Principles of Psychology, 2: 449)

26 Sedgwick notes that psychologist and affect theorist Silvan Tomkins considers sexuality to be “‘the drive in which the affective component plays the largest role’...Even though sexual desire is usually oriented toward an aim and object other than itself, it is much more malleable in its aims and objects than are the other drives” (Tomkins qtd. in Sedgwick, Touching Feeling 20).
“Texture is the kind of texture that is dense with offered information about how, substantively, historically, materially, it came into being” (Sedgwick, *Touching Feeling* 14). We come to understand objects through the contexts of texture as Bora exemplifies through an analysis of shininess, “In shiny, usually synthetic, fabrics, we can read sheen as an emblem of the artificial, the technological, the feminine, the Oriental, the luxurious, glamorous, tacky, or gay, in oppositional ideological codings that usually demand deconstruction” (Bora, “Outing Texture”104). The earlier example of the childhood fascination with touching artificial slime can be read through this lens. There is something so viscerally stimulating about the yuckiness of slime that it has been conceived of in a way that is not literally toxic or grimy, but simulates this experience in play for children. It has been amplified into this bright green sludgy substance that does not actually exist in nature, but has instead been formulated in the cultural imagination. It simultaneously invokes radioactive waste, alien-like ectoplasm, and even the squishiness of internal organs.

Texture entails subjectively human attributes because we understand objects in terms of what we can do, and want to do, with objects, and what the phenomenological feelings of these engagements. Bora’s writing on texture is driven by how the subject is prone to interact with the object, “…to perceive texture is to know or hypothesize whether a thing will be easy or hard, safe or dangerous to grasp, to stack, to fold, to shred, to climb on, to stretch, to soak” (*Touching Feeling* Sedgwick 14). Sedgwick aptly compares Bora to the theory of affordances that James J. Gibson introduced in 1977. This term describes “action possibilities” of objects in the environment, such as the way an object’s handle affords the act of holding. Affordances are Steinian in the sense that they communicate a unique intersection between perceiver and object
that does not exist in one without the other. For example, wrenches afford a human the ability to unhinge nuts and bolts, but to an animal, or even an infant, this property of affordance is not present. This has affective dimensions as well, such as the way a tree branch can afford refuge to a squirrel, however this does not extend to the dog chasing it. Since Gibson was a radical empiricist himself, his theory of affordances can be traced to James’ original notion of the importance of associations in constituting experience. In tracing this lineage, Tony Chemero points out how “affordances are relations” because “what we perceive, the affordance potability, is not in the environment alone. It is, instead, the relation between the perceiver and the environment” (Chemero, Radical Embodied Cognitive Science 141). As Stein is also involved in the intellectual legacy of radical empiricism, it makes sense that her poetry similarly investigates what it means for a mind to perceive the environment according to the ways it relates to the subject’s embodied and affective disposition.

The involvement of affordance properties in texture describes how the surface of an object shapes the ways we go about engaging with it, or as Bora puts it, “What do I want to do with (it)?” (“Outing Texture” 99). Fetish emerges from the phenomenon of texture precisely because texture implies “bodily, manual, fecal, and digestive thrills, which pack innuendo into the sharpest, roughest, crevices of pleasurable topographies and topologies” (Bora, “Outing Texture” 95). In her poetry, Stein pays attention to the more implicit affordances of objects such as those that arise from desire and fascination like the sliminess of eating food or the feeling of “silk under wear.” Therefore, the constant confusion between internal and external levels of

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27 It is important to note that while this can be traced to James’ notions about associations, Gibson himself did not think of affordances as mental associations between object properties, but rather as relations between object and subject.
experience arises from her recognition of the ways that the mind imbues the external world we perceive. The qualities we perceive are therefore implicated in this system of material-sensory inter-relationality.

The words, “tender buttons,” take on textural properties of their own affordances, which helps clarify what Stein might have intended by using this title. Stein poses questions of sexuality in her naming of this collection of poetry after tactile objects that are handled, pushed, and twisted. The act of buttoning is one of dressing or undressing, an intertwining of intimacy and sexuality that oscillates between revealing and disguising. “Tender buttons” can be objects that are in contact with the body, or perhaps are even parts of the body itself. The language of texture in these poems, and particularly wetness, silkiness, and sliminess, are properties of bodies. The adjective, “tender,” therefore may indicate that these are fleshy buttons. The body is full of sites of activation that can be pressed or handled in contexts like acupressure or erotic play.

Stein’s haptic poetics “make it plain” that the orientation of an internal subjectivity that peers out toward the external world does not sufficiently describe the nature of experience. In *Tender Buttons*, there is always confusion about what is touching and what is being touched. This importantly contemplates the question of how to parse qualities of perception between objective properties and subjective sensations. Stein highlights contexts of experience where it is not clear how to draw these margins therefore calling into question the boundaries of the self. She poetically accomplishes what philosopher Jean-Paul Sartre describes as the obscuring of the edge between self and object. “In my desiring perception I discover something like a flesh of objects.
My shirt rubs against my skin, and I feel it. What is ordinarily for me an object most remote becomes the immediately sensible... revealing my flesh by means of their flesh” (Sartre, Being and Nothingness 509). Tender Buttons simulates this experience of having one’s flesh revealed by means of the object’s flesh. The lens of haptic poetics brings this into a discussion about how our bodies provide us with the biological–affective architecture to be a self that can have experiences. This study traces radical empiricist minds from William James to James J. Gibson to consider how conscious experience emerges through interactive embodiment. Stein assembles textual relations that show us how the body is a site of complex interrelations between materiality and sensation. While showing connotes a visible demonstration, Stein produces multisensory effects that viscerally bring the reader into a textured felt space. Through her poetic exploration that moves between this fluctuating interface, Stein sensationally reveals to us our embodied consciousness.


