FQS FORUM: QUALITATIVE SOCIAL RESEARCH SOZIALFORSCHUNG

Volume 26, No. 2, Art. 29
May 2025

Assembling the Situation: Situational Analysis After the Nonhuman Turn

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Key words: situational analysis; nonhuman turn; assemblage; rhizome; social situation; Deleuze; Guattari; Clarke

Abstract: In this paper, I propose a reconceptualization of human and non-human elements in qualitative research by treating them not as pre-given entities but as nested assemblages. I draw on the work of DELEUZE and GUATTARI (2004 [1980]) to integrate the metaconcept of the assemblage into situational analysis (CLARKE, FRIESE & WASHBURN, 2018), thereby addressing its limitations in handling nonhuman elements and fully aligning it with the nonhuman turn. Two heuristics-capacities and internal limits-are introduced to operationalize this approach, enabling the deconstruction of elements' perceived unity and the mapping of the modules that constitute them. I start out by exploring the nonhuman turn and the concepts of assemblages and rhizomes. I then trace the evolution of situational analysis from grounded theory methodology, highlighting inconsistencies in the treatment of nonhuman elements. By reconfiguring situational analysis's analytical space, I locate situations among other situations and treat their elements as products of heterogeneous assemblages. With this framework, I demonstrate how situational analysis can effectively analyze how nonhuman elements emerge and how they participate in situations via specific capacities.

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Forum Qualitative Sozialforschung / Forum: Qualitative Social Research (ISSN 1438-5627)

1. Assembling the Situation

The concept of situation has long served as a core heuristic in interpretive sociology, providing a lens through which to understand social interaction. Rooted in the symbolic interactionist tradition, the heuristic of the situation emphasizes the situated nature of meaning-making, highlighting how individuals creatively construct, negotiate, and interpret the contexts they encounter (CLARKE, 2003). Described as a "theory/methods package" for social science research (CLARKE, 2005, p.4), situational analysis (SA) is firmly embedded in the interpretive paradigm (CLARKE, FRIESE & WASHBURN, 2018). Within SA, the heuristic of the situation is expanded to include what is conventionally understood as its context. SA folds external structures into the situation itself. As CLARKE (2005, p.71) stated, "[t]he conditions of the situation are in the situation. There is no such thing as 'context.'" This reconceptualization collapses the distinction between internal and external elements, emphasizing that they are all integral to the situation. Yet despite this theoretical innovation, the SA framework contains inconsistencies in its treatment of non-human elements. While CLARKE (pp.63-64) problematized an *a priori* distinction between human and nonhuman entities, she simultaneously proposed a pre-analytic distinction between these entities in her methodological application (p.90). [1]

The crux of this theoretical tension lies in the ambiguous epistemo-ontological status of elements within SA. This leads to the central theoretical question addressed in this paper: How can human and nonhuman elements be reconceptualized within SA? I propose treating them in parallel on the same plane of immanence, not as pre-given entities but as nested assemblages that are continually produced and transformed through their relations. I argue that while CLARKE et al. (2018) have already introduced Deleuzoguattarian concepts programmatically into SA, a more thorough integration of Deleuzoguattarian philosophy is needed to provide an ontologically consistent theoretical foundation for SA. This deeper engagement with Deleuzoguattarian thought moves beyond the current programmatic application to effectively address the conceptual challenge outlined above, thereby more fully aligning SA with assemblage theory and the broader philosophical movement of the nonhuman turn. [2]

CLARKE et al. made an initial connection between their understanding of the broad situation and the concepts of "assemblage" and "rhizome" (DELEUZE & GUATTARI, 2004 [1980], p.67). Building upon this foundation, but moving beyond its programmatic limitations, I systematically develop the theoretical affinity between SA and assemblage theory. [3]

In the conceptual framework I propose, both elements and situations are explicitly theorized as nested assemblages. The situation is conceptualized as a productive assemblage, while individual elements are treated as assemblages situated within situations. These assemblages relate to and connect with one another to form productive arrangements that collectively constitute the situation. With this elaboration of SA, I address the previously identified ontological inconsistency and demonstrate how the developed logic of nesting can be visually inscribed in

relational situation maps. In doing so, I align SA with the nonhuman turn. This alignment proves especially fruitful, as both approaches share a commitment to relational ontologies. Although SA lacked the comprehensive theoretical perspective I propose, it offered a structured, didactic framework for qualitative research that can, in turn, enrich the empirical applications of assemblage theory. [4]

I begin by preparing my reworking of SA through an exploration of the nonhuman turn (GRUSIN, 2015), emphasizing the concepts of assemblage and rhizome as its philosophical foundations (DELEUZE & GUATTARI, 2004 [1980]) (Section 2). I then trace the development of SA from grounded theory methodology, focusing on the shift from the study of basic social processes to a broader exploration of the situation. I also discuss analytical strategies for mapping situations, social arenas, and discursive positions, as well as critiques of SA, particularly concerning the treatment of nonhuman elements in CLARKE (2005) and CLARKE et al. (2018) (Section 3). After that, I present a revised version of SA using the concept of assemblages and propose an analytical framework that situates each situation among others and treats elements as products of heterogeneous assemblages. I also introduce two heuristics-internal limits and capacities-to assist in analyzing elements as assemblages (Section 4). I then present a case study to illustrate how the logic of nested assemblages and the two heuristics can be operationalized to analytically zoom in on specific nonhuman elements (Section 5). Finally, I summarize the proposed revision of SA (Section 6). [5]

2. Entering the Nonhuman Turn: Thinking With Assemblages and Rhizomes

> "[D]evelopments in posthumanism and environmentalism have culminated in what has recently been called 'the Non-human Turn'" (CLARKE et al., 2018, p.91).

The nonhuman turn, which emerged in the arts, humanities, and social sciences in the late 20th and early 21st centuries, marked a paradigm shift from earlier social constructivism. Researchers who adopted this approach sought to decenter human agency in favor of recognizing the agency of nonhuman entities (ROFFE & STARK, 2015). This intellectual shift encompassed several theoretical developments, including actor-network theory (LATOUR, 2005), new materialism(s) (BENNETT, 2010; COOLE & FROST, 2010; DeLANDA, 2016), and affect theory (MASSOUMI, 1995). Proponents of the nonhuman turn engaged with conceptual terrain similar to posthumanist discourse, yet their work characteristically lacked claims about teleological progression beyond the human condition. GRUSIN (2015, p.IX) contrasted this with posthumanism, for which frequently evolutionary or technological transcendence of human limitations had been proposed, noting that nonhuman turn theorists concentrated on decentering human exceptionalism without employing future-oriented narratives of human transformation or obsolescence. Instead, proponents of the nonhuman turn promoted a framework that conceived of humans and technology/materiality as fundamentally intertwined. They critiqued the Cartesian division between mind (*res cogitans*) and body (*res extensa*). COOLE and FROST (2010, pp.7-8) noted

that in Cartesian thought, philosophers conceptualized materiality (*res extensa*) as "corporeal substance consisting of length, breadth, and thickness; as extended, uniform, and inert"—that is, essentially passive. By contrast, *res cogitans* is framed as active, representing the autonomous Western male subject as the "configurer of worlds" (DE CASTRO, 2014, p.44; see also GRUSIN, 2015, p.X; KISSMANN & VAN LOON, 2019, p.17). [6]

The philosophical work of DELEUZE serves as a central theoretical foundation for the critical perspectives encapsulated in the nonhuman turn (BENNETT, 2010; COOLE & FROST, 2010; DE CASTRO, 2014; DeLANDA, 2016; MASSOUMI, 1995). The related concepts of assemblage and rhizome[1], which DELEUZE developed together with GUATTARI, play a particularly significant role (FOX & ALLDRED, 2017, p.17; critically: KELLER, 2017; MARCUS & SAKA, 2006). "Assemblage," a metaconcept elaborated in "A Thousand Plateaus" (DELEUZE & GUATTARI, 2004 [1980]), was translated from the French term *agencement*, itself a transformative translation of the German term *Komplex*, as coined by FREUD in the case of the *Ödipuskomplex* (BUCHANAN, 2015, p.383). Assemblages consist of productive relational arrangements of elements, which in turn form arrangements with other assemblages. Characterized by their relations and their "plugging in" to other assemblages, they form a network of relations: As an assemblage, "[a] book itself is a little machine; what is the relation (also measurable) of this literary machine to a war machine, a love machine, a revolutionary machine, etc." (DELEUZE & GUATTARI, 2004 [1980], p.28). As a productive arrangement of different elements, the assemblage generates a provisional continuity. It "faces the strata" (p.27), which tends to solidify and stabilize, while at the same time "facing a body without organs" (ibid.), which tends to disintegrate and disorganize. Productive relationships within assemblages involve both positive connections as well as ruptures, as illustrated by GUATTARI's discussion of Man RAY's collage "Dancer/Danger" (BUCHANAN, 2021, p.21). In this artwork, the cogwheels depicted are not interlocked; "neither the clusters of cogwheels nor the large transmission wheel are able to function" (GUATTARI, 2009 [1995], p.91). These breaks allow the assemblage to become productive as a work of art, to be plugged into the art machine. Assemblages draw elements from their environment, make them expressive by assembling them, and thus constitute territories that in turn produce and enclose the assemblages (DELEUZE & GUATTARI, 2004 [1980], p.864). This dynamic creates a reciprocal relationship. [7]

DELEUZE and GUATTARI introduced the concept of the "rhizome" alongside that of "assemblage" in the first chapter of the introduction to "A Thousand Plateaus."

1 DELEUZE and GUATTARI developed the concepts of assemblage and rhizome in dialogue with SPINOZA's monist ontology, which they employed as a conceptual alternative to Cartesian dualisms of mind and body. SPINOZA rejected dualistic conceptions and views human bodies, along with all other material, social, and abstract entities, as relational. These entities have no inherent ontological status or integrity except through their relationships with other similarly contingent and ephemeral bodies, things, and ideas (FOX & ALLDRED, 2017, p.17). Temporary and contingent stability emerges as these materialities are drawn into assemblages. This alternative to Cartesian thinking provides a framework for considering the entanglement of social and material elements, including humans and technology, without assuming an *a priori* hierarchy.

The rhizome represents the actualization of multiplicities within an assemblage. Through their botanical reference to rhizomes, such as ginger, DELEUZE and GUATTARI opposed the notion of fixed identities with situational connections that lacked a central point and existed always in a state of becoming. They employed this concept to reconsider the book: The book is an assemblage, a "multiplicity" of diverse elements and speeds (2004 [1980], p.27). As such, this multiplicity remains open because it is "no longer attributed" to a pre-existing whole (ibid.). DELEUZE and GUATTARI (p.24) rejected the idea of the book as a mirror of the world or as a unified whole. Instead, they proposed a rhizomatic model, in which writing operates at n–1 dimensions—constituting multiplicity through subtraction, not accumulation. This stands opposed to the root-tree model of hierarchical and arborescent thought. Similar to CLARKE's (2005, p.24) critique of the normal distribution function, which I will discuss in Section 2.1, the root-tree symbolizes teleological thinking in lines of descent and dichotomous subdivisions—a mode of thinking dominant in Western sciences. DELEUZE and GUATTARI (2004 [1980], p.32) characterized their work as "rhizomatic." Rhizomes connect heterogeneous points in a decentralized manner, resisting reduction to unity. Instead, unity results from overcoding, for example through processes of subjectivation (p.35) imposed on multiplicities. The rhizome does not operate in linear descent or development, but in operations of capture, appropriation, contagion etc. (p.38). The rhizome follows the principle of cartography:

> "The map is open and connectable in all its dimensions; it is detachable, reversible, susceptible to constant modification. It can be torn, reversed, adapted to any kind of mounting, reworked by an individual, group, or social formation. [...] it always has multiple entryways" (p.42). [8]

In referring to the rhizome and the tree, DELEUZE and GUATTARI reiterated two non-parallel, interwoven tendencies inherent in assemblages-the stabilizing and the disorganizing forces. This is also true of the distinction between map and copy (*decalcomania*): As modes of assemblage, they can merge, be overwritten, etc. (pp.43-44). *Decalcomania*—the technique of transferring designs from prepared paper onto another surface—serves as an example for processes that merely trace and reproduce existing patterns. As modes of assemblage, maps and tracings represent different operations: Mapping creates new territories and possibilities, while tracing reproduces and reinforces existing structures. While these appear as opposing operations, DELEUZE and GUATTARI emphasized that they are not absolute binaries but rather tendencies that can transform into one another: "The tracing should always be put back on the map" (p.43). [9]

Maps can become overcoded and stabilized into tracings when their innovative connections solidify into fixed patterns. Conversely, tracings can be placed upon maps to reveal points where the reproduction fails or where new lines of flight might emerge. This interplay demonstrates how assemblages constantly negotiate between forces of territorialization (stabilization, like tracings) and deterritorialization (destabilization, like maps). Rhizomatic thinking embodies the mapping principle because it operates without reference to transcendent models or ideals. Unlike arborescent (tree-like) thought that traces reality against pre-

established hierarchical categories or conceptual frameworks, rhizomatic mapping constructs immanent connections between heterogeneous elements, following their actual relations rather than imposing external organizing principles. Both the map and the rhizome must be created. For SA, this distinction underscores that situational maps are not passive representations of pre-existing situations but active interventions that reorganize our understanding of situations and foster self-reflexivity. Through the practice of mapping, researchers are compelled to examine their own positioning, assumptions, and the partiality of their perspective. [10]

It is noteworthy that pragmatism, which forms the philosophical foundation of SA, similarly formulates an alternative to Cartesian dualism, thus standing in parallel to the nonhuman turn in this regard. Pragmatists like JAMES (2004 [1907]) rejected the separation between mind and body, subject and object, emphasizing instead the continuity of experience. This convergence between pragmatism and "schizoanalysis or pragmatics" (DELEUZE & GUATTARI, 2004 [1980], p.439), both seeking alternatives to Cartesian bifurcations, provides a foundation for integrating assemblage theory with SA. Interestingly, SA's mapping strategies show striking parallels to rhizomatic principles in their emphasis on heterogeneous connections, multiple entryways, and non-hierarchical arrangements of elements. While the situational maps, social worlds/arenas maps, and positional maps developed by CLARKE (2005) were not explicitly framed through Deleuzoguattarian concepts in their original formulation, CLARKE et al. (2018) later recognized these philosophical resonances in the second edition of "Situational Analysis." This retrospective alignment suggests that the methodological practices of SA were intuitively congruent with rhizomatic thinking before being explicitly theorized as such. Rather than viewing this as a case of direct influence, I argue that it represents a theoretical convergence that was recognized *post hoc*. By developing this connection more systematically, rather than merely acknowledging it programmatically as CLARKE et al. (p.94) did, I will establish a more coherent theoretical foundation for SA that fully embraces the relational ontology shared by Pragmatism and the nonhuman turn rooted in Deleuzoguattarian philosophy while overcoming the lingering tensions in SA's treatment of human and nonhuman elements. [11]

Having established these philosophical connections, I now turn to a more detailed examination of SA itself. In the following section, I introduce the SA program, trace its origins in grounded theory methodology, and critically examine its foundational premises—particularly focusing on how it currently conceptualizes nonhuman elements. My critical analysis will reveal the specific theoretical tensions within SA that my Deleuzoguattarian reformulation aims to resolve. In Section 3, I will then build directly on this analysis by exploring how the concept of assemblage can be systematically integrated into SA's theoretical framework, thereby providing a more consistent ontological foundation for understanding the relationship between human and nonhuman elements in situations. [12]

3. From Grounded Theory Methodology to Situational Analysis

CLARKE (2005) positioned SA as a reflexive and holistic alternative to the positivist orientation of classical grounded theory methodology (GTM), thereby aligning this approach closely with the principles of the nonhuman turn. In her work, CLARKE characterized SA as a "theory/methods package" (p.4) for social science research that linked theory and method within "a set of epistemological and ontological assumptions together with concrete practices" (ibid.). In this context, method is understood as a way of enacting theory. [13]

Initially, CLARKE formulated SA to explore new theoretical terrain and navigate the symbolic interactionist and GTM frameworks through the postmodern turn, articulating mapping strategies for enacting theoretical shifts within analytic practices. CLARKE et al. (2018) developed subsequent iterations of SA by incorporating insights from the interpretative turn, which distinguished their approach from GTM and positioned SA as an independent research style. For CLARKE, the postmodern turn represented a shift in the status of knowledge. This shift, which occurred in the "mid to late 20th century" (2005, p.xxiv), moved knowledge from being understood as universal and general to being recognized as situated knowledge. As CLARKE stated, "[c]laims of universality are seen as naive at best and much more commonly as hegemonic strategies seeking to silence/erase other perspectives" (p.xxv). As a result, she sought to dissolve GTM's ties to positivist thinking, focusing instead on broad situations that include what has previously been seen as mere context-that is, elements previously considered peripheral-and highlighting the messy and multifaceted nature of "our world(s)" (CLARKE et al., 2018, p.117). [14]

3.1 From the basic social process to the situation

In "The Discovery of Grounded Theory", GLASER and STRAUSS (2006 [1967]) introduced grounded theory methodology as a systematic approach for constructing theory grounded in empirical data. CLARKE, in developing SA, retained core elements of GTM, such as open coding, theoretical sampling with immediate initiation of analysis, and memo writing (2005, pp.XXXI-XXXVII). At the end of a "conventional" GTM study, however, an abstract, procedurally described basic social process is typically employed (p.34). CLARKE criticized the positivist elements of GTM, particularly those condensed in the basic social process, as homogenizing. The focus is on a "core category" (GLASER, 1978, p.93) that accounts for empirical diversity only as variation from a primordial center, thereby marginalizing perceived irrelevancies. "Thus if two core categories are discovered, [the researcher] can choose one [...] and demote the other [...] as another relevant near core, but not core variable" (ibid.). In GLASER's conceptualization, basic social processes—typically expressed in gerund form—function as core categories characterized by processuality, temporal linearity, and progressive development (pp. 96-97, 99). CLARKE (2005) saw this type of analysis as driven by the logic of the (Gaussian) normal curve, a logic fundamental to modern Western scientific thought. She described it as the "default drive of Western science blackboxed inside the hardwares of knowledge

production" (p.23). Originally a mathematical model, this basic pattern of interpretation now pervades various disciplines, classifying the normal as conceptually distinct from the margins or offshoots. In the context of GTM, this default drive manifests most prominently in the basic social process.

> "The historical centering of a grounded theory of a given phenomenon on a single social process has been based on a profoundly universalizing and essentializing assumptions of the homogeneity of individuals and/or experiences embedded in the concept of the normal curve. [...] Basic for whom? Basic for what? [...] And why only one process?" (p.24) [15]

In contrast, CLARKE shifted the focus to the situation as the locus of analysis. The concept of the situation was significantly articulated by THOMAS and THOMAS, who stated that "if men define situations as real, they are real in their consequences" (1970 [1928], p.154). DEWEY (2002 [1938]) further explored the concept of "situation" and applied it specifically to research settings. DEWEY's perspective departed from the common understanding of situations by suggesting that situations, both in everyday life and in research, are defined by a transformative process that converts uncertainty into certainty. His interpretation added a holistic dimension to the concept, suggesting that the collective attributes of a situation transcend its individual components. "He framed the situation itself as having a gestalt that makes the whole greater than the sum of its parts" (CLARKE et al., 2018, p.69). [16]

Another important reference point for SA was HARAWAY's (2001) concept of situated knowledge, in which she emphasized the embodied perspective of the observer within the situation, as opposed to an external *God perspective*. "In sum, the situation has been widely theorized as both an object and an ongoing process. All these threads are important in grasping the concept deeply, especially that a situation is a gestalt greater than the sum of its parts" (CLARKE et al., 2018, p.71). CLARKE et al. thus conceptualized a "broad" situation that is not limited to an event, a brief encounter, or a local place, but encompasses all of these and more. "A situation involves a somewhat enduring arrangement of relations and includes a number of events over at least a short period of time, and can endure considerably longer" (p.117). [17]

3.2 Performing new grounds through mapping

CLARKE (2005) introduced three "new grounds" that serve as theoretical foundations for the mapping practices in SA. Each ground is linked to a specific mapping approach which together provide comprehensive analytical tools for investigating complex situations. I begin with the third ground as it establishes the fundamental spatial logic of SA's mapping practice and provides the conceptual foundation upon which the other two grounds build. [18]

The third ground articulated by CLARKE (p.66), represented a transformation of STRAUSS and CORBIN's conditional matrices (1990, p.163) into situational maps through her rejection of the traditional center-periphery model of context

and phenomenon. CLARKE asserted that "the conditions of the situation are in the situation. There is no such thing as 'context'" (2005, p.71). In this reconceptualization, all elements—human and nonhuman—are placed on a single plane. In situational mapping, the heterogeneous elements within a situation are addressed and their relationships are examined, beginning as unstructured representations that reflect the inherent messiness of situations. These maps include categories such as human actors, discursive elements, political factors, and nonhuman components, with relationships visually represented as lines connecting various elements. [19]

Introducing the second ground, CLARKE (p.60) emphasized "taking the nonhuman in the situation explicitly into account" through her integration of nonhuman elements and actants into SA. While problematizing the human/nonhuman dualism, CLARKE drew on pragmatist assumptions, particularly MEAD's concept of the "physical thing" as fundamental to human consciousness through embodied experience (1932, pp.119-140; see also McCARTHY, 1984; MILLER, 1973, p.103). CLARKE (2005) conceptualized this ground based on her acknowledgment that nonhuman elements served as active participants rather than merely contextual factors in situations. In her approach, she integrated these nonhuman elements into the situational map. I will explore this aspect in more detail in the following section, as CLARKE's treatment of nonhuman elements represents both a significant methodological advance and the introduction of a theoretical tension within SA that my Deleuzoguattarian reformulation seeks to address. My Deleuzoguattarian reworking of SA provides a new way to conceptualize the visual plane of situational maps. [20]

CLARKE developed the first ground by incorporating Foucauldian discourse analysis, recognizing that people were "awash in a sea of discourses" (CLARKE & KELLER, 2014, §90) which systematically constructed the subjects they addressed. CLARKE (2005, p.54) placed discourse in dialogue with STRAUSS's (1978) concept of social worlds, viewing discourses as world-organizing genres of communication that produce imperatives of being (FOUCAULT 1989 [1969]). This integration yielded two additional mapping techniques: Social world/arena maps which are linked to collective actors and their commitments within contested spaces; and positional maps, which chart discursive positions taken (or not taken) on particular issues, independent of who articulates them. Together, these mapping approaches—situational, social worlds/arenas, and positional—provide complementary analytical tools that operationalize the theoretical foundations of SA across its three grounding domains. [21]

3.3 Making (non-human) elements

While CLARKE (2005) advocated the inclusion of the non-human in analysis, this call requires further specification. I will attempt to synthesize the sometimes contradictory references to the treatment of nonhuman elements scattered throughout the two editions of her book[2]. What strategies can be identified for the incorporation of the non-human into situational analysis?

1. CLARKE (pp.63-64) problematized the notion of an *a priori* distinction between human and nonhuman. For empirical analysis, she explained that human actors determined the status of an element such as a fetus, as human or nonhuman depending on its situatedness in different social worlds (p.105).
2. A distinction between human and non-human agency was noted, but explicitly left unexplored (p.61).
3. CLARKE (p.90) designed ordered maps of situations to pre-analytically distinguish between individual human elements, collective human elements (both as agents), discursive constructions, and non-human elements (as agents). Researchers could then focus on these nonhuman elements within a network of relations, allowing for an analysis centered on materialities (CLARKE et al., 2018, p.185).
4. In the paradigmatic examples presented by CLARKE et al. in the second edition, there is a multiplication of elements. For instance, the single nonhuman element "salmon" appeared as a threefold discursive element: As "the rich man's property," as "the food of the people," and as "king of the fish" (p.332). These elements follow the formula X-as-Y, where X is a primordial anchor and Y is the result of an unspecified analytic operation.
5. Human and nonhuman elements are conceptualized as existing on a continuum and sharing the same plane (p.89). [22]

The problem highlighted by this overview can be stated as follows: Situational analysis "first looks at what elements exist and then analyzes how these can be brought in relation to each other. It does not ask, however, how these different elements are being produced and how they condense themselves into elements" (MATHAR, 2008, §33)[3]. In the second edition of "Situational analysis" CLARKE et al. (2018) addressed this critique: "[W]e can try to attend to Mathar's thoughtful point and explicitly consider the relations and the elements themselves as ultimately unstable" (p.145). This point served as a transition to the analysis of

2 Looking at CLARKE's own research, for example on reproductive medicine (1998), it becomes clear that technological artifacts served primarily as a starting point for the analysis of court decisions and social movement strategies. The interactionist background may play a role here. Although in many interactionist approaches the non-human has been taken into account, CLARKE et al. concluded that they have done so without the necessary theoretical and methodological reflexivity (2018, p.90).

3 Similarly, SCHWERTEL (2023) criticized situational analysis's gap regarding the constitution of elements and drew on STAR's concept of boundary objects and HARAWAY's becoming-with. Using the example of deep brain stimulation, she demonstrated that this term encompasses three different aspects: "It refers to the therapeutic process, the surgical procedure, and the electronics" (SCHWERTEL, 2023, p.11; my translation). However, throughout the article, the electronics aspect recedes behind the other two.

social collective actors as elements of social worlds. However, the answer did not refer back to material elements or objects. [23]

In my critical examination of SA, I identify an inconsistency in CLARKE's (2005) proclaimed problematization of the human/non-human binary: Her analytical framework maintained a subtle ontological hierarchy. This is evident in the aforementioned ordered situational maps, which have been criticized for their implicit prioritization of human actors (HAUBOLD, 2023, p.189). On closer inspection, this hierarchization follows the logic of the normal distribution, a model that SA itself seeks to critique. On one end of the distribution is the salmon as a non-human element with its three discursive translations that form the focus of the analysis, moving it to the center of the distribution. But the non-human element seems to be taken for granted. At the other end is the call for the exclusion of GTM codes from situational maps, as they are seen as too analytical and not "given" in the situation (CLARKE et al., 2018, p.109; see also OFFENBERGER 2023; WHISKER, 2018). What ultimately remains privileged in SA are elements at an appropriate level of social abstraction, while both the too natural and the too abstract are excluded. [24]

The questions arising from these observations and MATHAR's (2008) critique are: How can human and nonhuman elements be conceptualized not as given within the situation but as produced, while still being grounded on the same plane of immanence? The answer lies in the potential of DELEUZE and GUATTARI's philosophy as a new foundation for SA. As discussed in the following sections, the concept of assemblage provides the means to reorient SA toward the inclusion of "ultimately unstable" objects (CLARKE et al., 2018, p.145). [25]

4. Situated and Nested: (Re)Assembling Elements and Situations

In the second edition of "Situational Analysis," CLARKE et al. introduced thinking with assemblages and rhizomes as another new ground for SA (pp.91-97). It is important to emphasize that these Deleuzoguattarian concepts were only added in this 2018 edition more than a decade after the original publication, and were not part of the original theoretical framework of SA. By situating these two concepts within SA's framework, CLARKE et al. emphasized the "fresh" view of relations (the principle of cartography and decal) and the "looseness" and "instability" of the connections between individual elements (p.94). The tension between form and primary chaos created an analytical potential for dealing with complexity and change (ibid.). For CLARKE et al., these were mere "inspirational metaphors" (p.96). As such, they did not derive any concrete analytical strategies or suggestions from this inspiration. The exact nature of this inspiration potential and where it might lead—the "cash value" (JAMES, 2004, n.p.) in the context of SA—remains undefined. [26]

From this "inspirational" reading of DELEUZE and GUATTARI (2004 [1980]) emerged an implicit, dual relationship between the heuristics of the situation and these new "metaphors" of assemblage and rhizome (CLARKE et al., 2018, p.96). The central theoretical contribution developed in this paper is the elaboration of

this recursive relationship between situations and assemblages that operates bidirectionally. This dual relationship can be elaborated as follows: [27]

First, the situation itself can be conceptualized as a productive assemblage. As CLARKE et al. noted, the "gestalt" of the "assemblage" (2018, p.95) resembles the "gestalt" of the situation (p.69). Analogous to a Deleuzoguattarian assemblage, a situation constitutes a heterogeneous arrangement of elements (human actors, nonhuman objects, discourses, spatial arrangements, etc.) that collectively produce emergent effects exceeding the sum of their parts—precisely the defining characteristic of an assemblage. In this sense, the situation itself functions as a productive assemblage (the first relationship). Second, within any situation, multiple assemblages operate as constituent components. This perspective is supported by CLARKE et al., who stated that "the analysis that an assemblage functions should not signal the end of an analysis, but rather be a trigger to go further analytically and try to specify how *it functions in the specific situation* under analysis" (p.95; my emphasis). This statement explicitly positioned assemblages as components within situations that require analysis. These assemblages maintain their own internal dynamics while simultaneously contributing to the larger situational configuration. This established the second relationship: assemblages function as productive arrangements of elements within the situation. [28]

This dual conceptualization establishes what can be termed a "logic of nesting" wherein situations encompass assemblages that may themselves be analyzed as assemblages containing further assemblages. In this nested logic, the concept of situation serves as a fixed horizon at the meso-level of analysis—corresponding to the alloplastic stratum of social and cultural organization—and functions as an anchor for middle-range theory. With the situation established as this orientational horizon, the nested logic allows for systematic movement through different levels. Rather than establishing rigid boundaries between levels, these concepts function recursively, enabling researchers to traverse analytical scales while maintaining conceptual coherence. CLARKE et al. gestured toward this recursive potential of SA, when they acknowledged that elements "exist at multiple levels simultaneously" and encouraged researchers to "follow up on unexpected relations." But they offered no systematic approach for analyzing these multi-level dynamics beyond general exhortations to "work systematically" and be "provocative" (p.141). [29]

My integration of assemblage theory into situational analysis offers three significant analytical advantages that go beyond CLARKE's initial conceptualization (2005) and engage more systematically with the Deleuzoguattarian elements that were only programmatically incorporated by CLARKE et al. (2018). The central advancement lies in clarifying the ontological status of elements within situations: 1. it enables the analysis of how both human and nonhuman elements emerge as products of assemblages; 2. it offers conceptual tools for analyzing how assemblages within situations mutually constitute each other while maintaining distinct productive capacities, thus revealing the generative processes through which elements take shape; and 3. it

provides more systematic analytical strategies for tracing movements through nested assemblages within a situation, thereby enhancing SA's capacity to overcome micro/macro distinctions. [30]

In the next section, I first discuss how this theoretical reconceptualization transforms the analytical space within which situational mapping operates. This reconfiguration is then followed by a discussion of how researchers can effectively work with and move through data within this newly configured analytical space, specifically by employing the Deleuzoguattarian operation of n-1 and by analyzing the capacities of assemblages. [31]

4.1 Reconfiguring the analytical space of situational analysis

Thinking with assemblages and rhizomes resembles a map (DELEUZE & GUATTARI, 2004 [1980], p.42) of (partial) objects, heterogeneous elements and their productive relations. This concept has a strong affinity with situational maps. "Situational analysis also draws on Deleuze and Guattari's concepts of rhizome and assemblage, especially in designing messy situational maps" (CLARKE et al., 2022, p.6). By following the dual relationship between situation and assemblage, we arrive at a logic of nesting that can account for the production of elements. This nesting logic is crucial because it reconceptualizes nonhuman (and human) elements not as pre-given entities that merely enter into relations, but as emergent products of assemblages themselves. Each element that appears in a situational map can be analyzed as the emergent product of an assemblage with its own internal dynamics, relations, and history. Situations themselves are specific forms of assemblages as well which consist of assemblages of elements that function within those situations. This line of thought can be extended in both directions: Elements themselves are assemblages of elements, which are further assemblages of elements, and so on. Similarly, a situation does not exist in a vacuum; it is interconnected with other situations that are, in a sense, nested. This logic of nesting reflects DeLANDA's interpretation of the distinction between expression and form, drawing on the work of linguist HJELMSLEV.

> "The only problem with this terminology is that it suggests something to do with language[...] Another solution is to retain the terms 'material' and 'expression' for the components, but to always treat these components as assemblages in their own right, operating on a smaller scale but also consisting of formed materialities and substantial expressions. In other words, the solution is to always think in terms of assemblages of assemblages" (DeLANDA, 2016, p.75). [32]

This logic of nesting can be inscribed in the visual representation of relational situation maps.

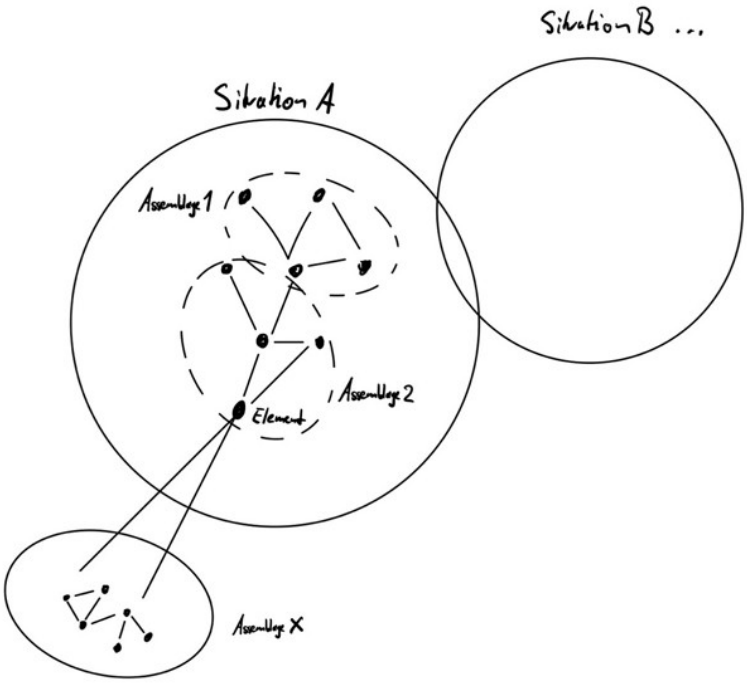

Figure 1: Situated and nested assemblages[4] [33]

This diagram of integrating the logic of nesting into SA is necessarily vague, as the form of the relations between situations, assemblages and elements must be specified within the framework of the respective empirical analysis. Their elaboration must be based on empirical data. With the inscription of a logic of nesting and the concept of thinking in terms of assemblages within assemblages, the empirical question of situating situations arises first—because assemblages (as situation A) couple with other assemblages (as situations B, C, etc.). This situated situation is then open to different assemblages operating within it. The whole produced by these assemblages remains situated within the situation and becomes an element of it. As such, it can also be inserted into, reterritorialized in other assemblages or other situations. Similarly, the "given" elements are themselves assemblages. Whereas CLARKE et al. (2018) tended to treat elements as pre-analytically given in their formulation of SA, I reconceptualize the analytical space as consisting of assemblages nested within assemblages. With this revision, I question the assumed givenness and oneness of elements as distinct wholes in two ways. [34]

4 The hand-drawn quality of these diagrams is a deliberate stylistic choice that references the visual aesthetics employed by DELEUZE and GUATTARI in "A Thousand Plateaus" (2004 [1980]). This aesthetic orientation is not merely decorative, but conceptually relevant, as it visually embodies the rhizomatic thinking that resists the rigid formality of typed schematics.

4.2 Moving with and through data

A foundational premise of SA is that situations are co-constructions between researchers and their research subjects, shaped by specific research questions and interests. As CLARKE (2005, p.108-109) emphasized, the production of maps is itself a situated analytical practice in which researchers make deliberate choices about which elements to include and how to represent their relationships. While acknowledging this constructivist foundation of SA, I propose that the integration of nested assemblages can further enhance the constructivist reflexivity by providing systematic strategies for examining how elements themselves are produced. My revision operates through two complementary analytical movements. [35]

The first is an upward movement toward produced, "emergent" elements, examining how assemblages generate elements that appear in situational maps. The second is a downward movement, following DELEUZE and GUATTARI's (2004 [1980], p.32) operation of "n-1." I interpret this operation as an analytical strategy for reconstructing how discrete elements emerge from assemblages. The "1" represents unity, wholeness, or the "gestalt" (CLARKE et al., 2018, p.95), which must be analytically subtracted to reveal the rhizomatic proliferations that produce provisional wholeness. By applying the n-1 operation, researchers can systematically unpack how elements, particularly those seemingly "given" nonhuman elements that often appear as natural or pre-existing, are themselves produced by complex assemblages, thereby making visible the processes of emergence that might otherwise remain unexamined. Through this approach, researchers can more thoroughly consider how elements come into being rather than treating them as pre-existing entities that simply enter into relations. [36]

Common sources of data for SA include documents (texts and images), observations, material artifacts, and interviews (FRIESE, CLARKE & WASHBURN, 2022, p.99). Through a process of selection and the practice of resituating them in a research context, these sources are transformed into data (CHARMAZ & BELGRAVE, 2019). This transformation applies equally to seemingly "given" material or nonhuman elements. When researchers map these elements, they are making analytical decisions about how to bound and define them based on their research questions. [37]

The previously introduced salmon example from CLARKE et al. (2018, p.332) further illustrates how these analytical movements can enhance situational mapping. In their example, salmon appeared primarily as a natural entity that is subsequently "overcoded" by discursive constructions (e.g., salmon as "king of the fish"). Using the n-1 operation, it is analytically possible to deconstruct this apparent unity to reveal that salmon itself emerges from assemblages operating across inorganic (water, rocks, etc.), organic (proteins, hormones, etc.), and socio-technical (river straightening, etc.) domains (DELEUZE & GUATTARI, 2004 [1980], pp.120-121). Salmon, as an emergent element of these relations, can then be inserted into other, e.g., discursive, relations. This analytical movement doesn't suggest that CLARKE et al.’s approach has an inherent blind spot; rather,

it acknowledges that when researchers apply SA as a social science research method, they typically operate primarily at the socio-technical meso-level. The n-1 operation then offers researchers an explicit strategy for *zooming in* on elements when their research questions call for such detailed examination. Similarly, researchers can use the upward movement for *zooming out* to examine how elements emerge from and participate in broader assemblages at work in situations of inquiry and how situations relate to one another in global arrangements. Elements derived from these two movements are as real as "given" elements; they are virtual, actualized by the fractured data and the art of analysis. This does not mean that they do any less work within a situation. [38]

With these upward and downward movements, I introduce sensitizing concepts-two possible guiding heuristics that, in their abstraction, can encompass the analysis of a wide range of non-human elements as assemblages. These concepts are internal limits and capacities. Assemblages are arrangements that are only provisionally stable, and facing a body without organs, are always in flux. Nevertheless, there are limits to variation before an assemblage qualitatively becomes something it was not before. "The internal limit refers to the sum of the possible variations it can accommodate" (BUCHANAN, 2021, p.123). An element, broken down into the parts that make it up-what I will call modules, since they are themselves composed of different parts-can contain a great deal of variety. This variety is found in the properties of its modules. Properties are finite, more or less permanent states that arise from the internal relations of an object (DeLANDA, 2016, p.73). From objects (e.g., a knife) and their properties (sharpness), capacities (to cut) arise when in contact with an environment, when situated within a larger assemblage. [39]

These capacities are not only dual—as in a coupled affecting/affected dynamic—but also not finite. "Capacities to affect cannot be fully enumerated because they depend on a potentially infinite number of capacities to be affected" (ibid.). Rather, they are fixed by the environment, by the assemblage within which they are situated. This fixing of capacities qua specific situatedness is also structured by the internal limit of the object as an assemblage. Internal limits simultaneously give rise to the assemblage and link it to a territory. Applied to elements as assemblages, this means that an element can contain a degree of variation within itself while maintaining its coherence through the actualization of concrete capacities within the situation. At the same time, capacities can be "frozen" in an assemblage and then enter other assemblages as a module, following the outlined logic of nesting. In the next section I will outline how these sensitizing concepts can be used in the analysis of situated assemblages. [40]

5. Assemblages in Action: Working With Nonhuman Elements

By employing the heuristics of capacities and internal limits, researchers are able to operationalize the outlined logic of nested assemblages. Viewing elements as assemblages involves deconstructing their perceived unity. Non-human elements —such as the salmon example discussed earlier—are typically not singular entities, despite often being treated as such in SA. What appears in situational maps as a single non-human element (e.g., "smartphone," "medication," or "salmon") actually represents an object class or category encompassing numerous concrete instantiations with varying properties. This is particularly evident for manufactured objects within global capitalism, where what we identify as a singular "element" is in fact a product category comprising countless individual items produced through standardized but variable processes. Recognizing this categorical nature of nonhuman elements is crucial because it reveals how conventional SA often inadvertently reifies these categories, treating them as singular and given rather than as assemblages that emerge through complex processes of production, standardization, mass customization, and classification (PILLER, 2006). By adopting a rhizomatic approach of thinking in n-1 dimensions, we can move beyond this reification to examine how these object classes are constituted. This is precisely where the heuristic of "internal limits" becomes valuable. Internal limits define the boundaries of permissible variation within an object class—they determine which properties and capacities can vary (and to what extent) while still allowing an object to be recognized as belonging to a particular class. Without such limits, meaningful recognition and categorization would be impossible amid endless variation. To facilitate this analytical distinction, I introduce a deliberate terminological differentiation: "Elements" refer to entities positioned at the level of the situation (the meso-level), while "modules" designate the constituent components that become visible when zooming into these elements. This now conceptual distinction provides analytical orientation when moving between different scales of analysis and reinforces the nested logic of assemblages. These modules are derived by comparative analysis of concrete objects belonging to the same class and mapping the necessary modules. Alternatively, one can code artifacts for properties and link these properties to emergent modules, much as codes are linked to categories in qualitative research. Whichever strategy is employed, the subsequent task is to reconstruct the internal limit of the element as an object class. Although properties such as size, weight, and color vary empirically—and can theoretically vary further—there is an underlying logic to this variation. Modules, themselves assemblages, following the logic of nesting, generate capacities through their coupling. These capacities then interact to produce further capacities. The key question then is: What capacities must a concrete object at the level of analysis possess in order to be attributed to an object class and thus become an element of SA? What is an element capable of? This question can be answered through comparative and theoretical analysis. Guiding questions for this type of analysis include:

- To what modules or parts are the various properties of a nonhuman element linked?
- Which of these modules are consistently present throughout the sample?
- Which of the present modules can theoretically be eliminated and still allow for attribution to the object class?
- What capacities are produced by these modules?
- What other necessary elements are implicated by the capacities produced by these modules? [41]

Building upon the elaborated theoretical framework, treating human and nonhuman elements as nested assemblages, and employing the heuristics of capacities and internal limits, I will demonstrate how these concepts can be applied in empirical research. In the following case study, I focus on hyper-realistic sex dolls, so called real dolls, as an illustrative example of how the logic of nested assemblages and the operation of n-1 can be utilized to deconstruct and analyze nonhuman elements in SA. In this case study, I deliberately focus on a single material element to demonstrate the analytical depth that becomes accessible through the application of the nested assemblage approach. Rather than attempting to map an entire situation with all its elements—which would limit the level of detail possible within the scope of this paper—I employ a *zooming in* strategy to reveal how even a single nonhuman element emerges from a complex arrangement of modules which facilitate capacities. At the same time, unlike other nonhuman elements such as smartphones or furniture, the hyper-realistic sex doll occupies a unique ontological position at the boundary between human and nonhuman. It is deliberately designed to simulate the (female) human form, texture, and intimate interaction, while at the same time being designed to remain fundamentally non-human. When analyzing elements that do not attempt to mimic humanity, the categorical distinction between human and nonhuman often remains unquestioned. With the real doll, however, this distinction becomes problematized through the doll's simultaneous humanoid qualities and its objecthood. In my broader dissertation research, I comprehensively map the commercial situation as well as the private situation of using sex dolls, identifying three distinct assemblages of use operating within this second situation. These assemblages reterritorialize the real dolls in varying ways along a gendered spectrum of nonhuman and human. For the focused purpose of this article, however, I concentrate on the analytical movement of zooming into what conventional SA would treat as a single element—the real doll—, thereby demonstrating the methodological value of the nested assemblage approach. [42]

5.1 A case study for working with non-human elements

Having established the theoretical framework for analyzing elements as nested assemblages, I now apply these concepts to the case of hyper-realistic sex dolls. In this analysis, I specifically apply the operation of n–1 to deconstruct what appears as a unified element into its constituent modules and to examine their respective capacities. Real dolls, introduced in 1996 by Abyss Creations, represent a distinct genre of hyper-realistic sex dolls that evolved from earlier, simpler models of vinyl blow-up dolls (FERGUSON, 2010). These dolls are modular in design, consisting of interchangeable bodies, heads, wigs, and orifice inserts, and offer significant customization through configurators that allow consumers to assemble the doll "of their dreams." Again: Thinking in n-1 dimensions entails preliminarily abandoning the real doll as a whole and mapping the necessary modules that constitute it.

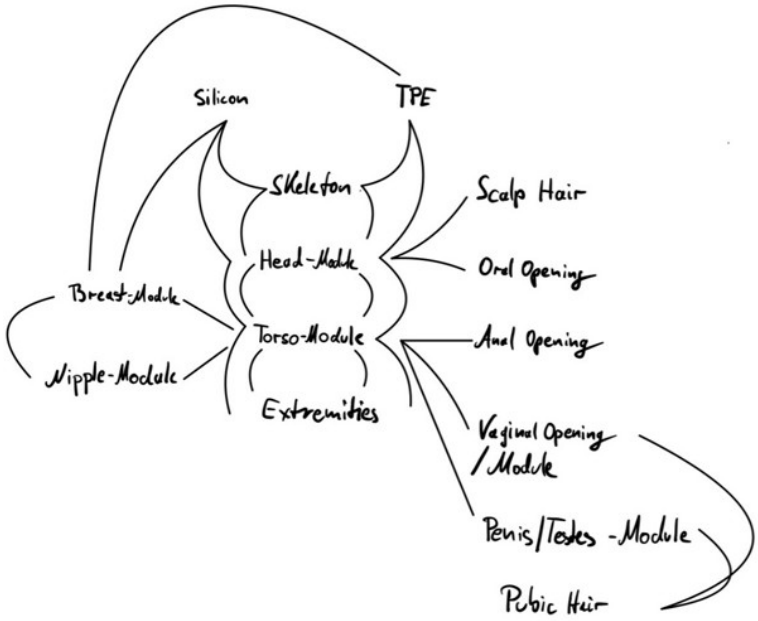

Figure 2: Mapping real doll modules [43]

Guided by the previously outlined questions, I present the following analysis based on a comparative study of 11 online shops, observations at an erotic fair, and interviews with people who live with hyper-realistic sex dolls. Through this analysis, I identify three core capacities that collectively establish the internal limits of the real doll as an object class—the boundaries that define what can and cannot count as a real doll, despite variations in specific properties. The first capacity defining the internal limit of the real doll is penetrability, maintained through openings or cavities. The arrangement of these cavities on the surface of the real doll connects them to the mouth, anus, and in many dolls, vagina. The mouth and anus openings are usually fixed. The cavity is designed for penetration. In the vaginal area, in addition to a fixed module, an interchangeable module can be installed. The characteristics of the vaginal module, whether removable or not, vary (e.g., width, height and depth of the opening). Regardless

of these variations, they provide the real doll with a capacity for penetration that marks a fundamental internal limit—an object lacking this capacity would fall outside the object class of "real doll." This capacity is not solely linked to the cavities, but arises from the coupling of several factors: The anthropomorphic surface of the doll (the second capacity, which I will discuss next), the localization of the openings on this surface, the marketing of the real doll for sex, an anticipated model user, and a heteronormative society. All of these elements position the real doll as penetrable by a male buyer capable of penetration. Whether this virtual ensemble captured in the real dolls materiality is actualized is another matter. [44]

The second capacity establishing the internal limit is anthropomorphic representation, realized through the surface of the real doll. Its design mimics the wholeness and shape of a human body, complemented by prominent joints. Real dolls typically have knee, hip, shoulder, elbow and neck joints. The features used to realize this form vary: Height, width, facial topography, and other characteristics may differ. For example, there are dolls with heights between 140 cm and 160 cm and bust sizes ranging from A to EEE and possibly beyond. However, the basic principle—which adds to the internal limit of the object class—is to imitate the outline of a human figure, its curvature and specific points of flexion. It is not about "realism" as one Chinese manufacturer's catalog claims. For example, the internal organs are not represented in the doll. The doll is not "designed according to human anatomy," as the catalog further states. Instead, the design aims to represent a surface of human-like form, equippable with different features to satisfy sexual fantasy.[5] The role of fantasy is expressed in advertising slogans such as "Our love dolls can be anything you imagine." Both the design and the (sexual) fantasies are shaped by a heteronormative society. The shape of the real doll and the ability of the joints to "hold" poses aim to produce a capacity to appear as-if human, to represent anthropomorphic form in relation to human vision: "Yeah, she just looks like a human, that's how it is, yeah," as one interviewee puts it. [45]

The third capacity defining the internal limit is haptic simulation of skin, realized through the surfaces of real dolls that are designed to feel like human skin. Real dolls are made of thermoplastic elastomers (TPE) and/or silicone. The softness of TPE provides a lifelike feel, yet its non-human nature is still palpable. Silicone, which has a similarly lifelike texture, offers greater versatility, allowing the creation of skin, teeth, and a tongue (BENDEL, 2020, p.5). Real dolls thus differ from so-called "teddy babes," which are penetrable dolls made of fabric, but they share this tactile dimension with some dildos and vibrators. Despite the haptic difference between flesh and TPE/silicone, the design aims to evoke the feeling of skin for those who touch the doll—another boundary condition that defines the internal limit of what can count as a real doll. Another strategy to create this sensation is to introduce air cushions into the TPE/silicone layers, for example in

5 The internal limit is also shaped by the size of the real doll. It must be proportioned to resemble a recognizable human form, while remaining portable and maintaining a manageable weight. This results in a specific range of acceptable dimensions: Large enough to simulate an adult human body, yet small enough to be transported and manipulated by a single person.

the chest or stomach area. The sensation of skin is further intensified by incorporating additional elements such as powder, oil, and care practices into the assemblage. Most skin areas are hairless, with the exception of the head, which has a wig, and the pubic hair on the *mons veneris*, which can be configured as an additional option. Gendered haptic ideals are associated with hair. Female ideals of beauty require hair to appear in very specific areas, while banning it from others. Male dolls, on the other hand, whose hair is limited to the same skin zones by the manufacturing process, appear "too smooth," "too boyish," as one female respondent put it. [46]

Through this analysis, I have demonstrated how the three identified capacities—penetrability, anthropomorphic representation, and haptic simulation of skin/touch—collectively establish the internal limits of the real doll as an object class while simultaneously producing its distinctive "realness." Summarizing this stratification of capacities, the question of how the real doll is constituted by reterritorialization as an element within a situation of anticipated use can be answered as follows: It is a materially frozen coupling of the capacity to be penetrated with the capacity of an optically conveyed, anthropomorphized surface form and with the capacity to evoke touch. The gendered nature of this assemblage becomes evident as the produced realness of the real doll is predominantly coded as female. Even when male-coded real dolls are produced, they do not overcode the fundamental female coding in its internal limits, as explicitly stated by one interviewee: "The brain is ... But manipulating it so that it's a male sex doll, a man ... No, no, it doesn't work. I looked at it, uhh no." [47]

In conclusion, I show how the real doll operates as a realness machine—never autonomous, but always embedded within larger assemblages and specific situations that either intensify or destabilize its capacities. For example, in the commercial supply situation, the real doll is arranged with other elements such as cameras, computers, and servers to translate it into images and texts. In advertisement imagery, the doll is coupled with beds, blankets, fruit, underwear, and specific poses—becoming integrated into a staged sexual scene (WILLIAMS, 1989, pp.40-46) that is then anchored back to the material object. What is being sold through these assemblages is the promise of sex. In other situations, such as private use, the as-if quality of the real doll's realness is intensified to produce the element of control—what is bought is the promise of control. [48]

5.2 Evaluating the analysis of nonhuman elements as assemblages

What is the practical significance—or "cash value" (JAMES, 2004 [1907], n.p.)—of this approach to thinking about elements? As demonstrated through the case study of real dolls, I argue that the nested assemblage perspective offers concrete methodological advantages over previous strategies for analyzing nonhuman elements within situational analysis. Up to now, researchers have discussed and criticized the design of real dolls based on a logic analogous to normal distribution. In many analyses, researchers began by establishing that female-coded real dolls constituted the quantitative majority and used this observation as a starting point. On this basis, they described the typical real doll

—or its assumed "essence"—as shaped by a "strong Eurocentric gaze" (KUBES, 2019, p.3) or by adherence to a specific "waist-hip ratio" (SU et al., 2019, p.10). Other researchers challenged this perspective by emphasizing the dolls' modular design, acknowledging the existence of male-coded variants, and pointing to the potential for decentering anthropocentric design principles (ROGGE, 2020, pp.57-60). However, these contributions primarily focused on comparing different real doll models to highlight concrete material similarities and differences, thereby trying to define the range of variation in properties among them—an endeavor ultimately limited by the impossibility of exhaustively capturing all existing variations. [49]

By shifting perspective to view dolls as assemblages and applying the n-1 operation to suspend unnecessary modules, an abstract diagram of the real doll emerges—one that transcends specific realized properties. This diagram does not represent an average or ideal type derived from empirical instances, but rather highlights the productive capacities and internal limits that establish what can count as a real doll regardless of specific variations. Instead of asking "what do most real dolls look like?" the question becomes "what capacities must be maintained for something to function as a real doll?" [50]

With this assemblage-based approach I have developed, I offer three key analytical advantages. First, I can account for the preliminary stability of an element within a situation by identifying the core capacities that anchor its identity. Second, I can explain the variation inherent in an element by distinguishing between necessary capacities (internal limits) and contingent properties. Third, I can trace the ways in which an element multiplies, translates, and transforms across different situations while maintaining recognizable coherence. As a result of this methodological shift, the focus of feminist critique is transformed in productive ways. With this approach, I am able to acknowledge the active role that the doll's materiality plays in producing its perceived passivity, rather than viewing it as an inherently passive object. The doll is not simply a passive element to be contrasted to male (predatory) activity (RICHARDSON, 2022) or the activity of (anticipated) robotic technology (KUBES, 2019) but actively participates in generating effects through capacities. Moreover, I am able to consider the multiple assemblages into which the doll is integrated and the active, productive roles it plays within these arrangements—whether in commercial contexts, private use, or ethical discourse. The practical value of this approach extends beyond the specific case study to SA more broadly. By treating (nonhuman) elements as nested assemblages rather than pre-given entities, researchers gain methodological tools for systematically analyzing how elements emerge through complex processes, how they participate in situations through specific capacities, and how they transform across different territories. This addresses the theoretical tension identified earlier regarding SA's treatment of nonhuman elements, providing a consistent ontological framework that neither privileges human actors nor reduces nonhuman elements to mere background contexts. [51]

6. Situations and Assemblages: A Preliminary Conclusion

My paper contributes to situational analysis by drawing on the nonhuman turn to open analytical space for material and technological elements as active participants in the shaping of social situations. This is significant because, as CLARKE and KELLER aptly noted, "we" are not only "awash in a sea of discourse" (2014, §90), but also immersed in a vast network of objects, technologies, and more. With digitization, these objects have become increasingly (mass-)customizable and intimate-characteristics that are evident in the case analyzed in this paper. In this context, I argue that a methodology capable of engaging with the complexity of the postmodern world must provide researchers with tools to address multiple, shifting, and contingent relations. [52]

I regard SA as distinct among qualitative methodologies due to its consistent emphasis on relationality—drawing together heterogeneous elements such as people, identities, practices, objects, laws, and discourses into analytically accessible configurations. However, it lacks adequate tools for analyzing nonhuman elements, particularly regarding their genesis and constitution as distinct elements within the situation. To address this gap, I have introduced the concepts of assemblage and rhizome as developed by DELEUZE and GUATTARI (2004 [1980]). These concepts, like situational analysis, function to emphasize relations, but also to offer a way to conceptualize overlapping and nested sets of relations, each with its own internal limits of variation. Assemblages are provisionally stabilized by these internal limits, producing capacities through their interactions with other sets of relations. By integrating the concepts of assemblage and rhizome into SA, I have provided a framework for empirically examining how nonhuman elements "are being produced and how they condense themselves into elements" (MATHAR, 2008, §33). [53]

While my focus here has been on technical artifacts, thinking of elements as assemblages is not limited to nonhumans. Human elements can also be understood as assemblages of situated habits (DELEUZE & GUATTARI, 2004 [1980], p.540), collective assemblages of enunciation (p.240), and more. Thus, both human and non-human identities emerge from heterogeneous but interconnected elements drawn from shared territories. In engaging with the nonhuman turn and its Deleuzoguattarian foundations, I extend SA by rejecting the ontological split between *res cogitans* and *res extensa*. Emphasizing relationality and interaction over fixed categories or essences, my reworking offers sociologists a conceptual tool for navigating—and intervening in—the rhizomatic assemblages that constitute contemporary life. [54]

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Citation

Bibbert, Mark (2025). Assembling the situation: Situational analysis after the nonhuman turn [54 paragraphs]. *Forum Qualitative Sozialforschung / Forum: Qualitative Social Research*, *26*(2), Art. 29, https://doi.org/10.17169/fqs-26.2.4306.