Dominant conceptions in the field of education position teacher development and teaching as linear, cause and effect transactions completed by teachers as isolated, autonomous actors. Yet rhizomatics, an emergent non-linear philosophy created by Gilles Deleuze and Felix Guattari, offers a perspective that counters these assumptions that reduce the complexity of classroom activity and phenomena. In Becoming-Teacher: A Rhizomatic Look at First-Year Teaching, Strom and Martin employ rhizomatics to analyze the experiences of Mauro, Bruce, and June, three first-year science teachers in a highly diverse, urban school district. Reporting on the ways that they constructed their practices during the first several months of entry into the teaching profession, authors explore how these teachers negotiated their pre-professional learning from an inquiry and social-justice oriented teacher residency program with their own professional agendas, understandings, students, and context. Across all three cases, the work of teaching emerged as jointly produced by the activity of multiple elements and simultaneously shaped by macro- and micropolitical forces. This innovative approach to investigating the multiple interactions that emerge in the first year of teaching provides a complex perspective of the role of preservice teacher learning and the non-linear processes of becoming-teacher. Of interest to teachers, teacher educators, and education researchers, the cases discussed in this text provide theoretically-informed analyses that highlight means of supporting teachers in enacting socially-just practices, interrupting a dominant educational paradigm detrimental to students and teachers, and engaging with productive tools to theorize a resistance to the neoliberal education movement at the classroom level.
Becoming-Teacher
SCOPE

Current educational reform rhetoric around the globe repeatedly invokes the language of 21st century learning and innovative thinking while contrarily re-enforcing, through government policy, high stakes testing and international competition, standardization of education that is exceedingly reminiscent of 19th century Taylorism and scientific management. Yet, as the steam engines of educational “progress” continue down an increasingly narrow, linear, and unified track, it is becoming increasingly apparent that the students in our classrooms are inheriting real world problems of economic instability, ecological damage, social inequality, and human suffering. If young people are to address these social problems, they will need to activate complex, interconnected, empathetic and multiple ways of thinking about the ways in which peoples of the world are interconnected as a global community in the living ecosystem of the world. Seeing the world as simultaneously local, global, political, economic, ecological, cultural and interconnected is far removed from the Enlightenment’s objectivist and mechanistic legacy that presently saturates the status quo of contemporary schooling. If we are to derail this positivist educational train and teach our students to see and be in the world differently, the educational community needs a serious dose of imagination. The goal of this book series is to assist students, practitioners, leaders, and researchers in looking beyond what they take for granted, questioning the normal, and amplifying our multiplicities of knowing, seeing, being and feeling to, ultimately, envision and create possibilities for positive social and educational change. The books featured in this series will explore ways of seeing, knowing, being, and learning that are frequently excluded in this global climate of standardized practices in the field of education. In particular, they will illuminate the ways in which imagination permeates every aspect of life and helps develop personal and political awareness. Featured works will be written in forms that range from academic to artistic, including original research in traditional scholarly format that addresses unconventional topics (e.g., play, gaming, ecopedagogy, aesthetics), as well as works that approach traditional and unconventional topics in unconventional formats (e.g., graphic novels, fiction, narrative forms, and multi-genre texts). Inspired by the work of Maxine Greene, this series will showcase works that “break through the limits of the conventional” and provoke readers to continue arousing themselves and their students to “begin again” (Greene, Releasing the Imagination, 1995, p. 109).
Becoming-Teacher

A Rhizomatic Look at First-Year Teaching

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INTRODUCTION

CHALLENGING SIMPLISTIC NARRATIVES
WITH RHIZOMATICS

On December 8, 2008, the cover of the US magazine *Newsweek* featured the headline, “How to Fix America’s Schools.” Next to the white lettering of this grandiose statement, and against the backdrop of a school classroom, stood a black power-suited Michelle Rhee, brandishing a broom. At the time, Rhee was the chancellor of the District of Columbia Public Schools in Washington, D.C. and was (in)famous for firing teachers in large numbers as a district turn-around strategy. The message from *Newsweek*, which began to echo around the nation, was clear: *teachers* were to blame for America’s educational woes, and the way to solve the problem was to clean house. Simple enough.

In 2008, we, Adrian and Katie, were still K-12 classroom teachers. Adrian taught elementary school in Passaic, New Jersey, and Katie taught seventh and eighth grade history in San Diego, California. Both of us worked primarily with students of color and English learners in high-poverty neighborhoods. Although we taught on opposite sides of the country, we faced the same simplistic narrative: our schools had been labeled as “failing” under the 2001 No Child Left Behind, and our responsibility was to make sure that our students raised their test scores. End of story.

Except it was not the end of the story—it was only the beginning. From our own experiences, we understood that no one-to-one correspondences existed between our actions as teachers and our students’ test scores. There were so many aspects of the process that did not figure into this simple perspective of “failure.” Take our students, for example. Even before they entered our classrooms for the day, many of them were dealing with circumstances beyond their control that impacted their ability to come to school consistently, much less participate in class productively. Thirteen-year-old Janae, for example, missed school several times a month to take care of her little sister, because her mother had to work and could not afford childcare for her infant daughter. Ismael, who had to walk his younger sister to school through multiple gang territories, brought a knife for protection one day and missed an entire week of school out on suspension. The father of another student, Jacky, had been recently incarcerated and her schoolwork fell to the side as she tried to find a way to cope. These circumstances, unsurprisingly, affected the ways they responded to us and our teaching.

Beyond these side effects of poverty, students of color and English learner (EL) students attend a punitive school system that tells them every day that they are
problems to be fixed. When they speak non-dominant varieties of English or their heritage languages, we tell them that they need to speak *proper English*. We place them in remedial, special education, and low-track classes at much higher rates than their white peers. We force them to enter their schools though metal detectors and house police officers on campuses in low-income neighborhoods, sending the message that we consider them to be criminals. We present them with a curriculum that tells them that their histories, cultures, and ways of understanding the world do not matter (or in some cases, that they do not even exist). Then, we tell them that if they only work hard in school, that hard work will translate into prosperity—although the evidence of that myth is apparent from the people in their communities who did go to school and work hard, and still have been excluded from opportunities to succeed economically. With these daily experiences, it is no wonder that many students of color and ELs have no desire to participate in a system that continually reinforces their oppression, and might not respond to instruction in ways that teachers desire.

The simplistic narrative adopted by proponents of the neoliberal reform agenda, like Michelle Rhee, does not consider other factors besides the teacher that influence the relationship between teaching and student achievement, such as the students themselves, their histories and daily realities, and the ways they interact with the punitive structures of schooling. By filtering out all elements except the teacher and assigning a causal relation between the teacher and learning, this perspective of teaching positions the teacher as an autonomous actor, students as passive, and contexts as neutral. Across the world the paradigm of neoliberalism has taken hold of K-12 and teacher education, not only producing schooling conditions that constrain early career (and indeed, all) teachers in enacting socially just teaching, but also perpetuating linear patterns of thought, which are underlined by the logic of the market.

Over the next few years, as we left the classroom and entered our doctoral studies, we began to realize that a major part of the problem was the simplistic thinking that informed this wave of neoliberal reforms being implemented in schools. We wondered what it might look like to study teaching from a complex perspective, one that took into consideration the multiple moving parts that influence the work of the teacher, including herself, her students, and the conditions present in her school setting. These wonderings eventually brought us to Deleuze and Guattari’s work with rhizomatics, and we have been “thinking with” Deleuzoguattarian concepts ever since. Thus, this book is as much about the process of becoming-teacher itself as it is about thinking about such processes, and indeed, thinking in general.

In this book, we put several rhizomatic concepts to work to generate different accounts of teaching, accounts that begin with assumptions of multiplicity instead of individual autonomy, and quasi-causality rather than one-to-one correspondence, to interrupt linear thinking patterns about teaching/learning to teach. Rhizomatics offers a language with which to “make the familiar strange,” but the sheer volume of new terms introduced in Deleuze’s work and Deleuze and Guattari’s collaborations requires a fair amount of study, and thus renders these concepts inaccessible to many.
This in itself is ironic, as Deleuze himself encouraged others to resist a search for deeper meaning when reading his works, since there was none to be found. Instead, he encouraged his readers to ask themselves what the concepts he presented could do for them—how the ideas might be put to work. Despite the sometimes slippery nature of Deleuzoguattarian philosophy, we are convinced that rhizomatics does lend itself to practical use, and in the following pages, we will attempt to persuade our readers of the pragmatics of this project. As we do so, we invite you to think of yourself as forming an assemblage with this book—that is, to come into composition and “plug” yourself into it, to create a machine (Deleuze & Guattari, 1987). Take out of it ideas that you can think with productively, and overall, differently, in your own context(s).

We have organized the book into eight chapters. We begin by providing an overview of the main rhizomatic concepts we use in this book (we revisit these in each of the chapters and explain them throughout to provide multiple entry points into the ideas). We then turn to the pedagogical and empirical grounding for the study, discussing teaching for social justice and the challenges new teachers tend to experience as they attempt to enact equitable practices in their first year in the classroom. In the third chapter, we discuss our process of rhizomatic inquiry, describing the methodological perspectives and approaches that guided our study. The following chapters present the cases of our three teacher participants, Mauro, Bruce, and June, discussing their construction of practices read through a rhizomatic lens. The final two chapters present a cross-case discussion and offer implications for using insights drawn from these cases to inform teacher education practice, supports in schools, policy, and research regarding new teachers.
CHAPTER 1

THINKING RHIZOMATICALLY IN AN ERA OF NEOLIBERALISM

INTRODUCTION

During his instructional unit on evolution, Mauro, a first year science teacher, had an exciting idea for introducing his lesson on natural selection to his ninth grade environmental science class. He went to Costco and bought a tub filled with approximately 80 pieces of a wide variety of well known candies: miniature bags of M&Ms and Skittles, Tootsie Rolls, Laffy Taffy, Smarties, Twizzlers, snack-size Snickers and Almond Joy bars, and flavored lollipops. His idea was to have each student choose two pieces of candy, which would leave about twenty leftover pieces. Mauro would use these leftover pieces as an entry point to the idea of natural selection, pointing out that the types of candy leftover were less attractive to predators (the students). If the leftover candy reproduced, the offspring would more likely possess characteristics of the leftover candy than the candy consumed by the predators. As class began, Mauro gave students directions and passed around the tub. When it made its way back to him, the tub contained only two pieces of candy—students had taken more than their two allotted pieces, and Mauro’s carefully planned lesson introduction was ruined.

Anyone who has spent time working in P-12 classrooms would concede to the often unpredictable nature of teaching activity. As we see in the vignette above, teachers create instructional units and learning experiences for students, but they are not the only variables with agency acting in a learning situation. In order to enact the kinds of learning experiences they created and devised, teachers rely on students to follow their instructions, participate in activities in particular ways, communicate with one another at specific times, and negotiate a variety of other observable activity in the classroom. However, teachers are also simultaneously navigating a host of other, often invisible elements—their own understandings of good teaching, expectations embedded within their school culture, societal norms of student behavior, a finite block of time allotted for a lesson—just to name a few. As the above vignette illustrates, teaching is co-constructed—it is not simply an action “done” by a teacher. Rather, teaching is an active and evolving series of activities that unfold within the classroom, co-constructed and negotiated among participants (e.g., students and teachers), influenced by and influencing a variety of elements both observable and non-observable, within both local and widespread contexts.
While this idea might seem to be “common sense” for those of us who have spent years working with P-12 students, dominant ways of conceptualizing teaching in the current era of neoliberalism provide a different message. Consistent with tenets of neoliberalism, which emphasize entrepreneurialism, individualism, and self-regulation (Harvey, 2005), recent education policies and reforms position the teacher as an autonomous actor uninfluenced by the formerly discussed elements who “does” teaching to students. In other words, academic content is provided in a cause-effect transaction in which teachers “dispense” knowledge and information to students, who are passive recipients of that information. This view assumes that the learning experienced during preservice education by teacher candidates is an object that is transferred, whole and unchanged, into the in-service classroom without interference or modifications. When teachers fail to implement the type of practices they learned about in their teacher preparation programs (as research on first year teachers show they often do), proponents of neoliberally influenced, market-driven reforms claim teacher education to be ineffective and superfluous. This critique espoused by supporters of market-driven reforms and policies—which some maintain is a direct attempt to dismantle university-based teacher education (Sleeter, 2008; Zeichner, 2010b)—has led to the call for alternate teacher credentialing and the proliferation of programs like “Teach for America” that put individuals with little or no teaching preparation into classrooms.

In the chapters that follow, we aim to disrupt this either-or, zero-sum type of rhetoric about the enactment of teacher learning and practice—that is, that teachers either “do” the learning they “acquired” during preservice education (and thus teacher education is worthwhile); or it is completely “washed out” (Zeichner & Tabachnik, 1981) (failing to manifest in the in-service context, rendering preparatory experiences and preservice learning completely worthless). We present this argument through the cases of three first-year teachers, exploring the ways that they constructed their practices over the first several months of their new careers (we define “practices” as the cognitive and physical acts that comprise the process of teaching). As we develop the cases, we draw on concepts from rhizomatics (Deleuze & Guattari, 1987)—a non-linear philosophy that seeks to interrupt linear, normative ways of thinking about human phenomena, ontology, and epistemology. Rhizomatic concepts serve as analytic tools that provide a more complex, nuanced interpretation of the multiplicity and composition of elements that constitute the nature of teaching.

TEACHING AND TEACHER EDUCATION IN AN ERA OF NEOLIBERALISM

In relation to education, the neoliberal era has ushered in the “Corporate Education Reform Movement,” a series of governmentally-imposed policies and systems driven by the logic of the free market (Karp, 2010; Ravitch, 2011/2013) that is, notably, supported across the political party spectrum. Front and center in this movement is the notion that accountability and competition will increase educational quality and equity. In other words, schools should be held accountable for student
performance, as measured via standardized assessment, to ensure quality control. Moreover, proponents of the corporate education movement promote the idea that attaching financial rewards and sanctions based on that standardized test performance will increase competition among schools, resulting in overall improvement in our education systems at all levels. Hence, all public schools must now engage in standardized testing at increasing levels to maintain funding and avoid financial sanctions. Drawing from this same logic, policy makers and reformers have connected (or are seeking to connect) teacher evaluations to student achievement based on standardized assessments. Ultimately, the use of standardized testing results to significantly inform teacher evaluation and as a deciding factor in school funding has led to narrow, prescribed curriculum focused on standardized testing preparation, diminishing the ability to enact learner-centered, student-driven instruction and messaging its implementation as onerous or impossible (Sleeter, 2009).

In conjunction with these policies and reforms, the neoliberal free-market principle that privatization increases competition has driven the school “choice” movement in education. Throughout the nation, the choice movement has led to the proliferation of charter schools, which has, in many cities, drained funding from local school municipalities to the detriment of community public schools. Charter schools, almost all of which are non-unionized, also support the political movement to suppress worker organizing through the dismantling of unions (teachers represent the largest unionized force in the US). Ultimately, the charter movement is centered on privatizing education, maintaining it as a commodity to be bought and sold in accord with the whim of the market instead of a public good to which all members of society are entitled (Ravitch, 2013).

This corporate education movement has not just affected P-12 education, however. The neoliberal agendas that inform this movement have enabled a systematic attack on teacher education programs that require teacher candidates to study pedagogy and complete extended practica (Zeichner, 2010b). Claiming that licensing and preparation requirements for teachers dissuade talented parties from entering the field of education, and coupled with “research” suggesting that teacher education bears no influence in the actual practice of teaching, critics of university-based teacher preparation have called for alternate entryways (also known as “fast-track” programs) into the occupation of teaching. The past two decades have seen a proliferation of these programs that effectively deprofessionalizes teaching. Normally requiring only a bachelor’s degree, these alternate route programs profess to specialize in “on-the-job” training, with minimal study of pedagogy, teaching and learning, or guided practice in the application of instructional skills prior to becoming a teacher of record (Klein, Taylor, Onore, Strom, & Abrams, 2013).

With an increasingly narrow curricular focus on the knowledge and skills assessed in standardized measures for which schools are increasingly held financially accountable, the combination of the aforementioned neoliberal reforms, policies and programs also have pressured teacher education and P-12 systems to remove social justice, culturally responsive and relevant instruction, and/or multicultural emphases
(Sleeter, 2009). However, despite neoliberal proponent claims that they aim to increase equitable learning experiences for students, research that has emerged over the last several years suggests that the educational reforms stemming from the corporate education movement present major social justice issues. In particular, children of color, ELs, and special needs students, as well as those living in poverty, are disproportionately harmed by these policies.

Schools that serve large populations of underserved students tend to be located in predominantly socioeconomically low income areas, and thus are more likely to be underfunded and under-resourced, given that public schools are primarily funded by the local district. With the high concentration of diverse student populations, the underfunding of schools, and a variety of other factors, schools in these areas are also more likely to “fail” on standardized measures of student learning in comparison to peer institutions that serve predominantly mainstream, middle and upper-class populations. At present, even ELs and special needs students are required to take standardized tests despite research that raises serious concerns about the appropriateness of this practice and whether these tests actually measure what they purport to (Darling-Hammond, 2007; Au, 2008). Because student achievement on these standardized measures is overwhelmingly low, these schools are disproportionately subject to financial sanctions, and forced to contend with curriculum reforms and a school culture that emphasize a narrow set of basic skills to be mastered in order to elevate standardized measures of learning. Moreover, while school “choice” is touted as a way to more effectively serve all students (including students of diverse backgrounds), studies have shown that nationwide, charter schools tend to underserve students living in poverty, students of color, ELs, and special needs students (CREDO, 2009). Because charter schools can exercise some autonomy and choice as to which students will attend these schools (often selecting students who demonstrate a capacity to score high on standardized measures), neighboring public schools are left serving the remaining student population with less funding and resources.

The confluence of these conditions further deprives students of meaningful, equitable, learner-centered educational experiences, given that qualified teachers are likely to be dissuaded from teaching in these settings, since their evaluations will be based on students’ standardized testing performance as a prime consideration in their hiring, renewal, and attainment of tenure. Due to multiple factors, that performance is likely to be lower than in more affluent/white schools. Combined with the “revolving door” of teacher turnover in these schools (Ingersoll, 2003), the lack of interest in teaching in these schools creates the illusion of teacher shortage. Instead, alternate route teachers—those who have had little or no preparation or practice for teaching—are more likely to be employed in these “high needs” schools.

Even for those who do pursue professional preparation for teaching, the first year is notoriously difficult. New teachers often struggle to enact what they have learned in their preservice teacher education programs, while simultaneously learning to work with colleagues and the culture of their institutions. Support from mentors
is often inconsistent, mismatched to content or grade level, or completely absent. Compounding these challenges, new teachers often receive the most challenging teaching assignments (e.g., Tait, 2008) and as previously noted, are more likely to work in high needs schools that are under-resourced and under-funded. As a result, new teachers often just struggle for survival, and tend to reproduce the transmission-based practices that contradict current understandings of equitable pedagogy. With these difficulties, new teachers play a large role in the “revolving door” mentioned above, with as many as half of new teachers leaving the profession by their fifth year of teaching.

As we explain below, rhizomatics (Deleuze & Guattari, 1987) provides a way to trouble linear thinking undergirding the neoliberal education movement—such as the causal relations that policymakers and others have assumed exist between students and tests, teaching and learning, and teaching and teacher preparation. By utilizing Deleuzian concepts to analyze the multiple interactions that take place in the first year of teaching, we can produce a more complex view of the role of teacher learning that occurs in initial teacher preparation, and thus develop an argument for its importance. We also argue that this philosophy provides productive tools with which to theorize a resistance to the neoliberal education movement at the classroom level, highlighting means of supporting teachers in enacting socially just practices and interrupting an educational paradigm detrimental to children most vulnerable to the neoliberal agenda.

THE TREE AND THE RHIZOME

The current neoliberal context enables and reinforces a particular type of thinking, which in turn influences a view of reality—and thus the way phenomena like teaching is socially, discursively, and psychologically conceptualized. This type of thinking, generally known as positivism, emerged from the Enlightenment and the scientific revolution, and is characterized by an objectivist epistemology and realist ontology (St. Pierre & Roulston, 2006). In short, this kind of thinking emphasizes that there is an objective reality that may be studied and ordered according to a universal set of rules; knowledge exists “out there” to be discovered; and humans are rational creatures whose existence (or ontology) is defined by their very rationality—“I think, therefore I am” (St. Pierre, 2000). Although positivistic views of knowledge and reality have been around for hundreds of years and are arguably the basis of Western thought patterns and scientific reasoning, their current resurgence in education as a mandatory orientation for quality research is noteworthy (St. Pierre, 2004).

The philosophy of rhizomatics seeks to disrupt this type of thought and posit an alternative (though not an opposite) view of thinking, of ontology, and of human experience. Deleuze and Guattari (1987) describe positivist thought as the “oldest and weariest kind of thought,” a binary logic that “endlessly develops the law of the One that becomes two, then of the two that become four” (p. 5), always reducible to a universal essence, the truth. This type of thought is linear,
sequential, ordered: it is the logic that underscores the notion that one person can observe a teacher teaching, analyze it along a checklist of criteria, and assign an either/or label: she is doing what she is supposed to, or she is not. She is effective or ineffective; Her lessons are teacher-led or student centered; her students are engaged or disengaged. Deleuze and Guattari label this mode of thought as arborescent or tree thought, asserting: “We are tired of trees…they’ve made us suffer too much. All of arborescent culture is founded on them” (36). Not only does this type of “petrified” thought dismiss other ways of knowing and being—which in our colonized world translates into the dismissal of indigenous and other subordinated populations’ epistemologies and ontologies—but it is also a ruse, deceiving us into thinking/believing that the current order of the world around us is the way that it has to be (Hinchey, 1998). Tree thought, because it only can reproduce itself—the one that becomes two—closes off other, perhaps previously unthought possibilities about existence, life experience, epistemology, and agency. It is the kind of thought that Barad (2007), quoting a poem by Alice Fulton, describes thus: “Because truths we don’t suspect have a hard time making themselves felt” (p. 1).

To help begin to think differently and thus open a space for thinking previously unthought potentialities, Deleuze and Guattari offer the figuration of the rhizome—not as a metaphor, but rather as an analytic tool (as all their concepts are meant). A rhizome, as it appears in nature, is a bulbous plant or tuber that grows unpredictably in all directions, proceeding by offshoots. Other examples provided by these philosophers include strawberry plants, crabgrass, or a pack of rats. If tree logic operates via the binary in either/ors, rhizomes operate in ands, connecting and expanding rather than closing off or creating boundaries. In contrast to the tree, rhizomes are acentered multiplicities, composed of heterogenous elements that form connections and change as they come into composition, always in a fluid state of becoming different as they move from one threshold to another.

**Thinking Differently with Rhizomatic Concepts**

We assert that Deleuzian philosophy is useful for theorizing the complexity of teaching practice, and in particular, teaching for social justice. Not only does rhizomatics interrupt linear views of “transference” of teacher learning into practice, but it also disrupts dominant forms of instruction (discussed in the next chapter), which mimic the characteristics of arborescent structures. In transmission teaching, learning is unidirectional—the teacher fills the student with content knowledge and the student reflects this internalized knowledge on a test. In this model, the teacher is the tree trunk while the students are the branches, reproducing the information that teachers have given them.

However, rhizomatics offers multiple concepts with which to think differently about teaching, education, and life more generally. The language of rhizomatics breaks with fundamental notions of positivism, providing a vocabulary of multiples,
fluidity, flux, expansion, and difference. Because of these characteristic foci, rhizomatics is concerned with processes over states—becoming over being—because, if the world indeed is always changing from one moment to the next, in a constant state of transformation (or becoming), studying what is would be a fruitless endeavor. By the time one has decided what it is, it would have become something else. Rather, rhizomatics focuses on questions that ask about context, function, and production. How does it work? How does it work for you? What does it function with? What does it produce? What different thoughts does it produce or enable you to think? (Deleuze & Guattari, 1987)

As outlined in the introduction, in this study we are strategic with the language that we draw from Deleuze. We focus on a cluster of concepts that we feel can help us address particular problems of thinking in teacher education—namely, the problem of linear thinking and the simplistic evaluation of the connection between teacher learning and teaching practice. These include the concepts of assemblage, becoming, and rhizomatic lines (molar, molecular, and lines of flight). In addition, we also use the term “multiplicity” to indicate a collective, and the adjective “multiplicitous” to connote the multiple nature of such collectives. We define each concept in the sections below.

Assemblage

The concept of assemblage both helps to express the multiplicative, co-constituted nature of teaching, as well as serve as a tool with which to analyze the interplay among various elements in the context of teaching and learning that jointly produce different kinds of teaching practice. An assemblage is an aggregate of elements, both human and non, that function collectively in a contextually unique manner to produce something (e.g., teaching practice, a situated identity). In this way, elements (humans, non-humans, actions, or events) are defined by their relations and functions as part of an assemblage, not by any inherent properties they possess.

To contextualize to teaching, a classroom is an assemblage, “composed of humans, writing implements, writing surfaces, texts, desks, doors, as well as disciplinary forces whose power and agency are elicited through various routines (e.g., singing the anthem) and references (‘In algebra, we always do this …’) (deFreitas, 2012, p. 562). In this assemblage, the students, teacher, physical space of the classroom, discourses, and behaviors function together to shape what the teacher and students collectively do/create. As such, the concept of assemblage lends itself to conceptualizing the work of the teacher not as a product enacted by an autonomous actor, but co-produced through a constellation of elements. Each element that composes the constellation is not held as separate, discrete, and neutral, but is conceived as an active agent in the joint production of the practices that are constructed. The collection of elements referenced at the onset of this paragraph thus functions and contributes toward a specific production and
as such are integrally enmeshed, one with the other, in the activity that unfolds in the classroom.

**Becoming**

Within a rhizomatic frame, teaching practice—that is, the processes of teaching—is not a static property or engagement the teacher uses or does, but rather is co-constructed **becomings**, or transformations-in-action, produced by the collective workings of the teaching-assemblage. A becoming is “a verb with a consistency all its own” (Deleuze & Guattari, 1987, p. 239), expressing a happening rather than a thing. Rather than connoting an evolution toward an end point (or a defined developmental trajectory), this use of becoming is “involution” (p. 238), a creative function occurring between heterogeneous elements. Becomings are created through alliances, as bodies, ideas, forces, and other elements come into composition in assemblages, and produce something new, different. Therefore, becoming directly contradicts the notion of the teacher as an isolated, encapsulated body/mind acting completely on her own volition, presupposing the notion of ‘being,’ or the rational concept of a being existing in and of itself. Extending this concept to the classroom, **becoming-teacher** necessarily implicates not just the individual teacher, but all the elements, forces, bodies and ideas that make up the teaching-assemblage.

Becoming also helps to reframe identity in a way that expresses its dynamic nature. As other researchers in education have pointed out, teacher identity is an important consideration because of its impact on the work that occurs in the classroom (Achinstein & Ogawa, 2011; Britzman, 1991; Bullough, 2005; Lasky, 2005; Sloan, 2006). Contemporary research in education also recognizes the contextually constructed, multi-faceted, ever-shifting nature of teacher identity (Rogers & Scott, 2008; Zembylas, 2003). Rhizomatics shifts this poststructural notion of relational and fragmented self toward a relational and fragmented **becoming-self** process, an individuality that is an event rather than a being (Deleuze, 1990). In other words, this notion moves away from the “what” question of teacher identity, toward the “how and why” of identity construction—a look at identity-in-action, or the series of co-constructions that unfold, fold over, and refold in the becoming of a teacher.

In the classroom, conceptualizing a teacher identity construction **process** enables us to focus on what teachers do and are capable of doing in their assemblage, rather than what their identities are. Attending to teacher identity as becoming allows us to move away from the idea of a teacher as a stable, encapsulated body and instead toward an amalgam of “body-world-process” (Blackman, 2012). This perspective, then, opens the possibilities of understanding the relational, contextual, and collective processes that contribute to **becoming-teacher**. We suggest that **becoming-teacher** is a concept that provides an alternative to traditional notions of teacher learning and
growth, an ongoing view of transformation that is non-linear, non-directional, and never quite actualized.

Rhizomatic Lines

Rhizomes are made up of “lines” that articulate how the elements comprising a multiplicity work or function. There are two main types of lines: molar and molecular. **Molar lines** are segmented and rigid, forces that “cut up” bodies, forcing them into acceptable patterns of behavior, institutional norms, and/or dominant ways of thinking and being in the world. Molar lines are dualisms, such as man/woman, black/white, rich/middle class/poor, and typologies or labels, like English Language Learner, At Risk student, or Disabled. Molar lines generally represent the macro-level of politics, although they are not just imposed from above. As Deleuze and Guattari caution, “It’s easy to be anti-fascist on the molar level and not even see the fascist inside you” (p. 215). Molar lines thus encapsulate the presently accepted norms, rules, social structures, conventions, and forms of communication that, although socially constructed, are assumed as inherently “normal”, “natural”, functioning as the standard to which which all human activity and social phenomena are held. In education, examples of molar lines include bell schedules, grade levels, mandated curriculum, codes of conduct, ideas internalized by students of what it means to be “good”, and deep-set beliefs by teachers who profess to believe in student-centered learning but maintain a cultural script of the need to control their class (“the fascist inside you”).

The second type of line is the supple, flexible **molecular line**, which carries out the work of the molar. This is the micropolitical line, the “supple fabric without which [the state’s] rigid segments would not hold” (Deleuze & Guattari, 1987, p. 213). Just as a molar fascist dictatorship cannot be successful long-term without its citizens nourishing their internal fascists, institutional rules and societal status quos must also be carried out by people. Here Deleuze and Guattari bring in the notion of agency—although their treatment of agency does not refer to rational decision-making, or “a choice like you [might] think” (Dyke, 2013, p. 153). Molecular lines have the potential to support the status quo, observe the institutional norm, obey the school bell and follow the pacing guide. As you might imagine, much of the day-to-day work of the teacher must support institutional rules and structures. Thus, the individual thoughts, actions, and practices of teachers that feed into and reinforce the molar system are the molecular lines at work.

However, because of their suppleness, molecular lines also have the potential to escape the status quo and form a **line of flight**. Lines of flight are breaks from the molar—a subversion of the institutional norm or inner fascist. For Deleuze and Guattari, lines of flight spur regime change and define societies:
It is as if a line of flight, perhaps only a tiny trickle to begin with, leaked between segments, escaping their centralization, eluding their totalization. The profound movements stirring a society present themselves in this fashion... From the viewpoint of micropolitics, a society is defined by its lines of flight. (p. 216)

The fabric of everyday life in the classroom provides a multitude of opportunities for lines of flight. A student might pose an unexpected question that spurs the teacher to open a discussion for the class to explore, and they shoot off into previously unthought territory. A teacher might encourage her class to use non-gendered language, like “partner” in the place of “husband” or “wife.” The class might discuss “testing” from a critical perspective. Each of these breaks or subverts the status quo in some way.

By nature, however, lines of flight are temporal. They will be recaptured by the molar line: “Molecular escapes would be nothing if they did not return to the molar organizations to reshuffle their segments, their binary distributions of sexes, classes, and parties” (p. 217). In the classroom, the teacher will eventually have to return to her original objective or give the test, and students will have to take it. The bell will ring and students will leave the class and go out into the world where they encounter heteronormative language at every turn. But in the recapture of lines of flight, the molar lines of the system are shuffled, and social change is possible. It is here, through the productive employment of lines of flight, that we theorize that teaching for social justice might take hold. Multiple lines of flight, reconstructed in classrooms over time, have the potential to disrupt neoliberal influences and enable a rethinking of teaching and learning that attends to the equitable inclusion of all individuals (teachers and students) and provide opportunities for the realization of both imagined and not-yet-thought becomings.

TEACHING AS RHIZOMATIC ACTIVITY

Our argument that teaching, and teaching for social justice in particular, is a complex activity is certainly not new. Education scholars have argued this point from the viewpoint of postmodernism (e.g., Hargreaves & Jacka, 1995), complexity theory (e.g., Clarke & Collins, 2007; Cochran-Smith et al., 2013), and social constructivism (e.g., Windschitl, 2002). Yet, we suggest that by using the rhizomatic concepts outlined above, we not only provide an explanatory framework for complex activities, but also analytic tools that push our understanding past “what” questions to the “how” of the construction of complex practice. The concepts of assemblage, becoming, and lines of flight are also theoretical tools that can be put to work from inside the neoliberal system—that is, they account for the dominant power structures (molar lines) and provide a space for them in theorizing teaching for social justice.