

Subjects in the Threshold
Opening-up Ethnographic Moments that Complicate
the Novice/Veteran Science Teacher Binary

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Introduction

The teaching workforce is in the process of a generational shift from one comprised of majority veteran teachers to one made up of majority novice (Johnson & The Project on the Next Generation of Teachers, 2004). Traditionally, the humanist narrative of “novice versus veteran teacher” serves as an efficient way to understand and produce an experienced workforce in the current neoliberal educational climate. This standard approach to workforce development has hit science teachers especially hard as they work within a culture of crisis for ensuring competitive Science, Technology, Engineering, and Mathematics (STEM) preparation for the growing global marketplace. However, this depiction and point of entry for understanding science teacher experience is not entirely accurate. Rather, this narrative is only one plane within the complex assemblage defining science teachers and science teacher experience. Consequently, this article aims to liberate the “novice science teacher” from traditional modes of knowing, naming, and (re)producing efficient subjects within a neoliberal educative machine. To put theory to work, however, researchers and teacher educators also work differently. Thus, using a feminist poststructural

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perspective with Deleuzoguattarian concepts of “becoming” and the “threshold” (Deleuze & Guattari, 1987) to think with theory (Jackson & Mazzei, 2012), in this article I engage three ethnographic moments shaping the inductive experiences of beginning science teachers. The line(s) of inquiry negotiated in this article expose generative possibilities for “talkers of education” (e.g., the diverse population of teachers, school and district administrators, teacher educators, educational researchers, educational policy makers, students, and parents who often speak about and make decisions regarding educational issues) and “authors of experience” (e.g., educational researchers, who they essentially write the lived experience of others) to move from fixed notions of the novice, veteran, and teacher subject as an epistemological endeavor to an ontological one. More specifically, talkers and authors of education shift modes of understanding novice/veteran science teachers as fixed rational objects to engaging these entities as a living process.

Entry Points for Re-thinking the Inductive Experiences of Science Teachers

Each educative moment provides an opportunity for social justice. The sections that follow demonstrate how modes of inquiry in research can be both violent and liberatory. By engaging research as a form of social justice, this article strives to extend social justice initiatives to considerations for the types of subjects manufactured through methodology, naming, and proposing generalized implications.

Doing Research As, On, or For Social Justice

At the core, research endeavors are almost always knowledge projects. While this might be an obvious statement to many, what becomes less obvious is the way research functions to make certain ways of knowing and being possible and legitimate. For instance, researchers are positioned to somehow understand another’s experience better than the implicated subject(s) themselves. This implicit enactment of power inherently shapes the ways individuals know and understand themselves *and* others. As authors of experience, researchers must proceed with great caution when striving to investigate specific instructional practices, or ways of being a teacher, with goals to prescriptively improve opportunities for others. Many knowledge projects, propositions of implications, and tidy generalizations not only begin from a place of privilege, but they also contain remnants of an ideal (e.g. rational, racialized, gendered, manipulable, westernized, marketable, scientifically reducible) subject. For this reason, researchers must develop a meticulous eye for the ethics of

ideological imposition when studying ways subjects and actions might be, or afford, possibilities for social justice.

Becoming-in-the-Threshold

To enact research as a form of social justice, this article works within a Deleuzian new materialist perspective emphasizing ontology, rather than conventional positivistic perspectives, which privilege epistemological traditions. Agreeing with Nordstrom (2015), “We simply cannot do qualitative inquiry as it was done before...”, (p. 188). Being “researcher” becomes *and* must become something different. Furthermore, by turning to ontology in research on teacher education (Strom, 2015), we might “provid[e] a space for different kinds of lives” (Nordstrom, 2015, p. 189). For this work, Deleuze and Guattari (1987) and Jackson and Mazzei (2012) provide two helpful entry points, *becoming* and *threshold*. While condensing Deleuzoguattarian concepts to neat definitions is tough, Bruns (2007) helps to articulate Deleuze and Guattari’s (1987) multi-dimensional concept of becoming:

[Becoming] is a movement in which a subject no longer occupies a realm of stability but rather is folded into a nomadic mode of existence in which one is always an anomaly that is inaccessible to any form of definition. (p. 703)

Using the notion of becoming is more than a theoretical tool for authors and talkers of education, but a way of being with/in the materiality of data, humans, ideas, nature, and systems of territorialization (Deleuze & Guattari, 1987) irreducible to representation. Bruns’ (2007) framing is particularly helpful for thinking about how talkers of education currently understand novice and veteran teacher subjects as two distinct entities. Not only are these two subjects recognizable, they also make talkers of education’s preparation and development of teachers socially efficient. If we know in advance how teachers *ought* to develop, then it is only rational to fill up the novice with the “right” preparation. However, this article instead uses the concept of a becoming subject and consequently a becoming subjectivity to complicate this taken-for-granted assumption that is so deeply rooted in teacher development. By turning to an ontological framework of becoming—in this case, becoming-teacher and becoming-researcher—the subject is liberated, rather than being treated as an epistemological project.

This ontological inquiry is forced to occur within the threshold of becoming. Jackson and Mazzei (2012) describe the threshold as a critical space for *Thinking with Theory*:

Think of a threshold. In architecture, a threshold is in the middle of things. It exists as a passageway. A threshold has no function, purpose, or meaning until it is connected to other spaces. That is, a threshold does not become a passageway until it is attached to other things different from itself. Thresholds contain both entries and exits; they are both/and. A single threshold can be not only an entry, but also an exit; therefore the structure itself is not quite as linear and definitive as one might think...The excess of a threshold is the space in which something else occurs: a response, and effect. Once you exceed the threshold something new happens. (p. 6)

I have reached the threshold of the novice/veteran science teacher binary. In each of the ethnographic moments I navigate, something new happens. The familiar face of the novice and veteran science teacher becomes strange.

Both philosophical constructs presented above allow me to engage the subjects implicated in this ethnographic story as multiplicitous and dynamic. By drawing on aspects of these philosophical constructs, I hope to also “write in order to change myself and in order to not think the same thing as before” (Foucault, 1978, p. 240). It is in this space that I use the threshold to “produce something new, something different from mere themes and patterns generated by coding” (Jackson & Mazzei, 2012, p. 6). In order to pull the subjects in this study free from the pull of Cartesianism and “objectivity”, this particular line of inquiry navigates the delicate ontological spaces embedded within becoming-science teachers. By studying inside the threshold, the ways subjects *get written* and *write into* the ethnographic story becomes more complex.

In this article, I engage early moments of a specific ethnographic story by residing in the threshold as an ethical departure from traditional objective, rational, and scientific analyses that seek to know, name, and normalize science teachers and their experiences. I challenge myself and other talkers/authors to unknow (Biesta, 2013), re-conceptualize and re-imagine the ways *method* also constrains the ways we are expected to know the subjects and moments implicated within this study.

Maintaining The Accountable Subject

Current literature on novice teacher experiences neatly fit under one overarching term--that is, induction (Wang, Odell, & Clift, 2010). However, through the practice of and research on “effective induction,” an ideal novice teacher subject who is always in need, always lacking, and never ‘enough’ is manufactured. For example, Strong (2009) presents a meta-analysis of what research currently knows about ensuring effective models of induction and support for new teachers. The search for the

best successful and replicable induction model must also be cost-efficient (Villani, 2009). Furthermore, with the onslaught of for-profit alternative teacher certification programs now serving as a new mode of teacher induction, the neoliberal project is magnified. For example, Gatti and Catalano (2015) share how teaching (and learning to teach) in alternative ways now functions as a business. Entangled with pathways to teacher certification, much of the prevailing research on teacher induction resorts to predictive, causal, and correlative studies that continue to objectify and commodify novice teachers. In the case of induction research, this movement is most evident in the language used within studies and program descriptions. For example, common induction terminology is often grounded in market-based goals, a will-to-truth, and developing replication models: (a) “we need empirical evidence” (Strong, 2009, p. 4); (b) “teacher outcomes” (Strong, 2009, p. 4); (c) “human capital” (Strong, 2009, p. 28); (d) “prescribe the content of induction programs” (Strong, 2009, p. 35); (e) “the only reliable way to *measure* classroom teaching practice” (Strong, 2009, p. 51, emphasis added); (f) “lessen subjectivity” (Strong, 2009, p. 56); (g) “more precise” (Wang et al., 2010, p. 7); (h) “produce the outcomes of interest” (Wang et al., 2010, p. 9); and (i) “efficient performance” (Wang et al., 2009, p. 17). Ironically, this dominant approach for ensuring effective novice teachers is often prefaced and/or concluded with statements like: “[research on induction]... force us to conclude that we really do not know the extent or nature of any effects of induction on teaching, and what we think we know, we cannot prove” (Strong, 2009, p. 77). While induction researchers acknowledge the difficulty in *knowing* the beginning teacher, the field continues to seek a normalized framework and prescription for the systemic production of an effective, replicable novice teacher. To combat constant ontological violence—that is, to fight the imposition and privileging of a particular way of being the novice teacher subject—this article aims to free the novice science teacher (as we know it) from being (re)written again.

Engaging Ethnographic Moments

Six months ago I began conducting a study on the ways institutional culture influences the subjectivities and practices of beginning science teachers. Consequently, this particular ethnographic inquiry is loosely guided by the prevailing assumption that one normative form of a beginning science teacher exists and can be fully known, understood, and (re)produced. However, in the early moments (i.e., gaining Institutional Review Board approval and participant consent) of this study I found myself in a series of confusing, chaotic, and pleasant circumstances

while gaining approval and access to beginning science teachers. Each of these moments sent me into a whirlwind of (re)negotiation for the subject positions and ownership researchers and teacher educators impose on *their* participants. In my case, the inscription and assumption of a particular kind of subject I with which began my study were grounded in a traditional humanist framework associated with the beginning science teacher as *either* novice *or* veteran, rather than the critical post-structural perspective from which I tend to make meaning. It was through my engagement with these complicated negotiations alongside post-qualitative forms of inquiry (Lather & St. Pierre, 2013; Davies, De Schauwer, Claes, De Munck, Van De Putte, & Verstichele, 2013; St. Pierre, 2013; St. Pierre, 2014; Jackson & Mazzei, 2012) that I discovered the importance discrete moments have for shaping the ways myself and other authors of experience (un)make sense of beginning science teacher experiences. Davies et al. (2013) describe post-qualitative practices as,

[opening] up a moment-by-moment ethical questioning that asks how things come to matter in the ways they do. Post-qualitative encounters ... see subjects, including the researcher, as emergent in encounters with others—with human others, with discourses, and with physical and social landscapes. (p. 680)

It is from this stance that I open up multiplicitous moments to engage the novice/veteran science teacher and researcher-subject differently.

By thinking in the threshold of the ethnographic moments presented in this article, it is my hope that researchers and educators might be positioned to “be-do-live something different” (St. Pierre, 2014, p. 5). Perhaps researchers, educators, and I might ask:

1. How does the assignment of participants by school districts, participant self-identification, and the author of experience’s self-reflexivity get (re)shaped through the (re)negotiation of dominant language?
2. What new ontological entry points can early ethnographic moments offer for rethinking the novice/veteran science teacher binary?

Given that this particular article focuses on the early stages of an ethnographic study, my analysis aims to provide a unique and concentrated look into the ways the ethnographic story and beginning science teacher subject emerges. While most research analyzes the phenomena after a study is complete, this article steps into moments that rest in the threshold of approval.¹ From seeking school district approval to engaging

with existing scholarly literature on proper ways to study the inductive experience of novice teachers, I have struggled to define the beginning science teacher. In an attempt to mediate this tension I sought out alternative ontological possibilities for navigating the (in)separability of the novice/veteran science teacher. In my efforts to avoid (re)writing a fixed, linear, and definable subject, I have exchanged the traditional findings, discussion, and implications sections of an article for a layered conversation among, across, and outside three multiplicitous moments.

Moment(s) of Multiplicities

The following layered conversation contextualizes early ethnographic moments to depict three different levels of American education and also research on teacher education. Constructed through three (un)stable sites of territorialization (Deleuze & Guattari, 1987), these data specifically feature three analytical junctures: (a) the primary participant (i.e. beginning science teacher) and their local context (i.e., the school in which the beginning science teacher is employed); (b) the district-level facilitators of the project (i.e. the gatekeepers) and their systemic context (i.e., the school district organizational structure); and (c) the author of experience (i.e. researcher) and her educative context (i.e., the researcher's home and formal educational touch points). Moment(s) One reflect discourse circulating at the school district level and the identification of research participants. Moment(s) Two frame my first meeting with a participant, Ms. Roberts, and our (re)negotiation of the Institutional Review Board (IRB) study criteria. Moment(s) Three moves into the more personal ways doing research inherently intersects my own becoming.

By opening up these specific moments I hope to demonstrate how the micro and macro discourse of being novice/veteran and studying science teacher induction are messier than traditional, or positivistic, assumptions of teacher development allow. Deleuze and Guattari's (1987) concept of multiplicity helps us consider the complicated nature of novice/veteran science teacher subjects. Just like I aim to depict the novice/veteran science teacher subject as multidimensional, the experiences depicted in my field notes (Emerson, Fretz, & Shaw, 1995) should be understood as a multiplicity:

Deleuze takes the idea that any situation is composed of different multiplicities that form a kind of patchwork or ensemble without becoming a totality or whole. For example, a house is a patchwork or ensemble without becoming a totality or whole. For example, a house is a patchwork of concrete structures and habits. Even though we can list these things, there is finally no way of determining what the essence of a

particular house is, because we cannot point to anything outside of the house itself to explain or to sum it up - it is simply a patchwork. This can also be taken as a good description of multiplicities themselves. (Roffe, 2010, p. 181)

Similar to Roffe's house example, my field notes (like data from most research studies) only provide insight into the pieces, or distinct patches, of the concrete structures obscuring the entangled and emergent subjects/ideas/questions/definitions.

***Moment(s) One:
Identifying Participants***

The District. Sumner parish is one of the largest parishes in the state with a population of 245,829 and the associated school district is responsible for all of the public schools within the parish. The U.S. Bureau of the Census (2014) describes the racial demographics for the entire parish as 84.3% White, 12% Black, 0.6% American Indian, 1.4% Asian, 0.1% Native Hawaiian or Other Pacific Islander alone, and 1.6% Two or more races. Furthermore, 88.4% of the parish population has received a high school degree or higher, while only 33% has received a Bachelor's degree or higher (U.S. Bureau of the Census, 2014). When looking specifically at the parish's school district, the student demographics proportionally resemble the entire parish population. The school district employees and parish residents both take pride in having one of the highest ranked public education systems in the state.

Initial meeting with the District Assistant Superintendent. Before we could discuss potential participants, I needed to get a sense of the context that this district's beginning teachers are already situated within. For example, does the district already have a mandatory induction program for beginning teachers and/or what types of supports are already in place for new teachers?

Dr. Sallendar: ...we have an induction program for new teachers.

Maria: Oh, really? That's great.

Dr. Sallendar: It's called DOOST. It stands for Developing Our Own Stellar Teachers, and it is for all new teachers... not just novice teachers, but any teacher that is new to Sumner school district.

Meeting with District Coordinator of Curriculum & Instruction / Human Resources. Meanwhile, Ms. Ramsey sat behind her computer rattling off different names of potential participants as she skimmed through a spreadsheet holding each teachers' background information. I inferred that the document also held information regarding their number of

years of experience as a classroom teacher. As she did this, Ms. Ramsey asked me if I wanted any diversity in my participant sample. I found this question to be kind of off-putting and interesting all at the same time. I responded with a rhetorical, and legitimate, question regarding the notion of diversity. What does diversity actually mean? Ms. Ramsey did not have a response.

Given that this primarily white suburban school district has different initiatives to recruit minority teachers and traditional assumptions about doing good scientific research starts with a “diverse” participant sample, I assumed Ms. Ramsey’s question was directed at racial diversity. However, my mind immediately went to teacher preparation routes as a diverse sample. For example, how did the teacher get certified? Depending on whether the route to preparation was through alternative licensure or traditional certification processes a different set of sub-questions on “diversity” emerge. Consequently, my response to Ms. Ramsey was, “I’ll talk to anybody who is willing to speak with me.”

Email from Ms. Ramsey.

Ms. Ramsey: “I have located a Science teacher. She teaches 3-5 grades Science only at Kallen Elementary. Would you be interested in speaking with her?”

Maria: “Yes! That would be fantastic! Thank you.”

Ms. Ramsey: “Her name is Ms. Roberts. Her email is... She will be expecting to hear from you. Thanks!” (Personal communication, September 9, 2015)

Threshold One. This set of moments pushes us to (re)consider control and freedom within and away from traditional conceptions of the subject, including both the novice teacher and the research participant. The way the school district and Dr. Sallendar describe induction means two things: (a) if all teachers new to Sumner are treated as a novice, a wide array of possibilities for becoming emerge; and (b) if all teachers new to Sumner are treated as a novice, they are likely subjected to increased forms of ideological control. Deleuze and Guattari state, “A becoming is not a correspondence between relations. But neither is it a resemblance, an imitation, or, at the limit, an identification” (1987, p. 237). Becoming-novice science teacher for Deleuze and Guattari *and* Sumner school district is always already a contradiction escaping while also reinscribing the de/territorialization of itself. The district’s attempt to identify “adequately” diverse participants and their current program of induction both afford *and* constrain certain possibilities for viewing teacher becoming. Through this process of inscription, we begin to see how the novice/veteran science

teacher binary is essentially “affects and powers” (Deleuze & Guattari, 1987, p. 241). Sumner school district combined with Deleuze and Guattari help talkers of education and authors of experience ask: In what ways does research on and programs of induction objectify the novice/veteran science teacher and research participant? What possibilities might emerge if talkers of education shifted from conversations of maintaining an ideal novice/veteran science teacher subject and/or participant to a multidimensional process of becoming-teacher?

Moment(s) Two:

Meeting Ms. Roberts.

Ms. Roberts. Ms. Roberts is about forty years old, Black with red tinted hair and freckles, in her twenty-third year of formal teaching experience, and commutes thirty-five minutes from the large urban city nearby to school each day after dropping her daughter off at daycare. Ms. Roberts holds a Bachelors and Masters degree in Elementary Education, and she is currently amidst many new experiences. This is her first year teaching third, fourth, and fifth grade science, first year in the Sumner school district, and first year working at Kallen Elementary. Prior to this school year, Ms. Roberts taught two years of Pre-kindergarten—second grade, kindergarten for ten years, first grade for five years, third grade for two years, and was in the role of “Master Teacher/Instructional Coach” for three years. Ms. Roberts is a self and district-identified beginning science teacher.

Just as I expected, the unexpected happened. While Ms. Roberts was a “beginning science teacher” in her first year of teaching science, she was not a traditional recently certified “new” teacher altogether. I learned that Ms. Roberts actually had quite a few years of experience before moving into her current role as a 3rd, 4th, and 5th-grade science teacher in her current school district. This caught me off guard. Ms. Ramsey, from the district office, took responsibility for seeking out participants and knew that my research focus was on “science teachers in their first three years of experience.” However, I did not even realize how this statement could also include teachers with prior teaching experience in a different subject area! So Ms. Roberts and I were both caught off guard by this simultaneous realization. I stared at my neatly prepared and pre- IRB approved consent form that stated,

Inclusion criteria: Science teachers in their first, second, or third year of teaching.

Exclusion criteria: Teachers that do not teach science or have more than three years of experience.

I explained that I would check with the IRB office to see if I needed to modify my approved consent form. Ms. Roberts felt comfortable signing the consent form in its current state, but moving forward I plan to inquire about the need for a revised consent form to keep Ms. Roberts as a participant.

Excerpt from my revised consent form.

Inclusion Criteria: Teachers in their first, second, or third year of teaching science.

Exclusion Criteria: Teachers that do not teach science or have more than three years of science teaching experience.

Threshold Two. Ms. Roberts' confusion represents her paradoxical situation by altering the ways talkers of education constitute and qualify the notion of *experience*. How does the label of novice produce certain assumptions about how we know experience? And for what purposes? And by whom? From Ms. Roberts' push-back, the traditional building blocks of teacher development are shaken. She helps show (at the micro level) how difficult it is to define teachers and their experience. At this level Deleuze and Guattari (1987) offer an alternative entry point to explore new possibilities for teacher experience:

Becoming is involutory (as opposed to evolution), involution is creative.
To regress is to move in the direction of something less differentiated.
But to involve is to form a block that runs its own line 'between' the terms in play and beneath assignable relations. (p. 239)

By re-conceptualizing teacher experience as something other than a compounding linear event, the novice/veteran science teacher subject is an impossibility. For example, Ms. Roberts followed her own divergent line of experience, constructed her *own* block(s) of time, and existed with/in her *own* assignable relations. Ms. Roberts pushed me as a researcher to resist *knowing* her within traditional developmental language currently defining the novice, or beginning, teacher. Consequently, she inadvertently and intentionally insisted that I *know* her differently. When looking at her previous teaching and leadership positions alongside her new label of "beginning science teacher," I am often at a loss for words for how to describe the complexity of Ms. Roberts' positionality. Is she a novice? No, and yes. Is she a veteran? No, and yes. Is she both? Maybe. Even then, these terms continue to function as regimes of truth (Foucault, 1977) that maintain the assignable relations limiting teacher becoming. Ms. Roberts alongside Deleuze and Guattari help talkers of education and authors of experience ask: In what ways do participant criterion and taken-for-granted labels of novice/veteran (re)produce a certain science teacher subject?

Moment(s) Three:***Personal Reflections with a Teacher Educator and Home***

Home. To further complicate the intricacies of this study, I currently live in the small suburban city where the aforementioned places and people are located. This is significant because while I may physically remove myself from the schools in which I study, I am never fully removed from the discourse that formally and informally circulates throughout my day-to-day reality. These interactions and engagements take form in a variety of ways: (a) the local five page newspaper that arrives at the end of my driveway every other day devoting over half of their publication space to local educational news; (b) the high school student across the street who seeks school advice and shares her school experiences with me; (c) the parents who ask if their daughter's teacher is doing a good job; and (d) the students at Kallen Elementary who play with my dogs in our small neighborhood park. While the examples are presented as isolated experiences, they often flood my attempt to separate "the field" and my personal/professional reality.

Reflecting on my emerging dissertation with a teacher educator.

Dr. Nicks: I want to hear about what you are working on.

Maria: Well, when I started my Ph.D. program I originally said I was interested in the experiences of beginning science teachers. Then later I began calling my interest "induction" because that's what everyone said I was studying.

Dr. Nicks: Haha yup, that's induction.

Maria: But now I am starting to realize just how limiting that approach to framing can be for me as a researcher and for the teachers I work with. For example, I have recently started doing some ethnographic work on beginning science teachers, which has really thrown me for a loop! I wrote my IRB and informed consent letter around an assumed definition of "beginning science teacher" as a teacher in their first three years of science teaching experience. Well in my head and in conversations with school district leaders, I thought that my participants would be recently certified science teachers, just wrapping up their preparation program.

Dr. Nicks: Mm. hmm. (Dr. Nicks nods her head.)

Maria: Then I was assigned participants (which is a whole other thing) by the district. Come to find out the first assigned participant already had 23 years of formal teaching experience!

Dr. Nicks: (Dr. Nicks shakes her head and purses her lips together.) That's not a novice. Maybe you need to go back to the district and ask for a different participant.

Maria: Well, but then we started talking more, and the participant clearly identifies herself as a beginning science teacher and obviously the district does too. Now, there is no way I can just ignore this teacher's sense of self.

Dr. Nicks: But, that doesn't match up with what the literature on teacher induction says a novice is supposed to be...

Maria: Yes, I know! That's why I am so confused and excited by meeting this teacher. This is also why I am hoping to disrupt those assumptions a bit.

(Dr. Nicks cautiously smiles.)

Maria: I think a lot of the literature currently focuses on what should happen to beginning teachers or on how new teachers are expected to be. Because of this participant, I have a whole slew of new questions.

(Dr. Nicks laughs.)

Maria: Like, what assumptions do we make about "beginning science teachers" when we assume they do not yet know something? Or that they are lacking (and must lack or need) something in order to be "successful"?

Dr. Nicks: Hmm... (Personal communication, December 4, 2015)

Threshold Three. Moment(s) Three demonstrate the messiness of how instances, tensions, and contradictions continue to circulate in this particular study, but also in relationship to being a researcher. What would it mean to become *alongside* the participants implicated in one's study? Deleuze and Guattari (1987) describe becoming and multiplicity as inherently the same concept, stating,

[Multiplicity] is defined by the number of dimensions it has; it is not divisible, it cannot lose or gain a dimension *without changing its nature.... and that a multiplicity is continually transforming itself into a string of other multiplicities, according to its thresholds and doors...* In fact, the self is only a threshold, a door, a becoming between two multiplicities. (p. 249, emphasis original)

Each moment within this text and outside it constructs *and* serves as a threshold for thinking the novice/veteran science teacher subject and the role of the researcher anew. Thinking through my study with Dr. Nicks, my lived experience "outside" (while also somehow "inside") "the ethnographic field," and Deleuze and Guattari (1987) forced me to live differently. Consequently, these moments help talkers of education and authors of experience ask: How might research on science teachers strive to free the subjects implicated within a study, which are

themselves *and* one's participants, instead of striving to (re)inscribe the known?

Lines of Flight

At the heart of this post-qualitative inquiry and the moments exposed in this article is the act of rethinking the subject. This can be a daunting endeavor, but it is critical if talkers of education are to (re)engage the novice/veteran science teacher in more socially just ways. From Moment(s) One we see how discourse about and within the school district level can permeate the ways researchers and novice/veteran science teachers come to negotiate themselves. Moment(s) Two provides a glimpse into how Ms. Roberts' alignment as solely novice or veteran is not nearly as clear as authors of experience and talkers of education tend to portray. Moment(s) Three exemplify how my own becoming as an author of experience and other talkers of education have great influence on how we intentionally and unintentionally inscribe certain assumptions *onto* the novice/veteran science teacher subject before even talking with the affected participants. Across each of these multiplicitous moments the threshold of how we "know" the novice/veteran science teacher subject is reached. For this reason, the lines of flight (Deleuze & Guattari, 1987) that appear from this inquiry come in the form of two primary questions rather than definite implications: (a) What ontological possibilities emerge when authors of experience resist understanding and knowing their participants? and (b) How might talkers of education unknow the novice/veteran science teacher? By engaging these questions, we find freedom within the multiplicitous possibilities for subjects; which become opened with, from, and by multiplicitous questions. As St. Pierre (2014) states, "This is the agency, the freedom of the posts, to 'refuse what we are' (Foucault, 1982, p. 216), what we do, the world we create" (p. 5).

Note

¹ To protect the identities of the places and people included in this article, pseudonyms are used for individuals, schools, school districts, and program titles.

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