

Nomadic Education

Variations on a Theme by Deleuze
and Guattari

Inna Semetsky (Ed.)



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Nomadic Education: Variations on a Theme by Deleuze and Guattari

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Nomadic Education: Variations on a Theme by Deleuze and Guattari

Inna Semetsky

The University of Newcastle, Australia



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(PRE)FACING DELEUZE

This collection brings innovative educational theory into constructive dialogue with the intellectual work of French poststructuralist philosopher Gilles Deleuze whose conceptualizations strongly resonate with contemporary discourse in education. His collaboration with social psychologist Felix Guattari connects philosophy with sociocultural practices. Considering the impact of Deleuze's thinking in social philosophy or cultural theory, a thorough investigation of his legacy for education is imperative (cf. Semetsky, 2006) and conducive to further interdisciplinary studies. Deleuze and Guattari referred to their philosophical method in terms of *Geophilosophy* as beginning with the Greeks. Geophilosophy creates a map or cartography of historical events. Stressing the value of the *present-becoming*, Deleuze and Guattari privileged geography, in spatial terms, over merely a temporal history and positioned their philosophical method against the conservatism, apoliticism and ahistoricism of analytic philosophy. The chapters comprising this volume address issues of primary significance for education ranging from research methodologies to popular culture, to art and creativity, to knowledge structures and learning, to pedagogy, to ethics and moral education, to the problematic of identity and subjectivity.

It is the Deleuzian philosophy of life shared by all contributors that crosses the boundaries between diverse content areas in educational research. The given collection constitutes an exercise in educational (geo)philosophy as an instance of *becoming* of this particular disciplinary field. This *present-becoming* of the philosophy of education is represented by thirteen essays written by scholars across the globe, each chapter being an experiment in nomadic thinking¹. The metaphor of nomad, used often by Deleuze, is potent as indicating a dynamic and evolving character of philosophical concepts versus their having forever-fixed and eternal meanings independent of context, time, place, subject, or culture. Nomads are excluded from history, yet they break through into history by virtue of their very geography, that is, a movement that cannot be controlled. For Deleuze, all "becomings belong to geography, they are orientations, directions, entries and exits" (Deleuze, 1987, p. 2). In a range of works, Deleuze and Guattari have established a new critical and creative language for analysing thinking as flows or movements across space. The constructive process of production of new concepts, meanings and values embodies an important nomadic *affect* immanent to this very process: it is desire, a creative and erotic element that (in)forms the multiple flows of thoughts and effects. As such, constructivism in philosophy, for Deleuze, is always complemented by expressionism, by "a becoming of thought [that] cries out" (Deleuze, 1995, p. 148) thus disrupting concepts that Deleuze compares, invoking musical tropes, with songs. The nomadic – *smooth* – space is an open

territory, providing emancipatory potential to those who are situated in this space in contrast to *striated*, or gridded, space, both musical terms coined by composer Pierre Boulez and subsequently employed by Deleuze.

Nomadic education will have paid attention to places and spaces, to retrospective as well as untimely memories, and to dynamic forces that are capable of affecting and effecting changes thus contesting the very identity of the philosophy of education. For Deleuze, philosophy cannot be reduced to contemplation, reflection, or communication as aiming solely at consensus. It is uniquely a practice of concept creation, and the pedagogy of the concept “would have to analyze the conditions of creation as factors of always singular moments” (Deleuze & Guattari, 1994, p. 12; cf. Peters, 2002; 2004). Deleuze's own philosophical work and his collaborative partnership with Guattari have created novel concepts for philosophy, namely rhizome, nomadic thought, fold, event, Body Without Organs, etc. Positing philosophy as a method of concept creation, the creative – both constructive and expressive – element being a necessary condition for the very *pedagogy* of the concept, Deleuze and Guattari understand such a method in terms of the geography of reason based on a new image of thought that expresses itself in nomadic mode. For Deleuze, a concept is always full of critical and political power that brings forth values and meanings.

The relevance for education is paramount: as Deleuze and Guattari (1994) said, “If the three ages of the concept are the encyclopedia, pedagogy, and commercial professional training, only the second can safeguard us from falling from the heights of the first into the disaster of the third” (Deleuze & Guattari, 1994, p. 12). It is pedagogy – in art, science, and philosophy alike – that must educate us, respectively, in becoming able to feel, to know, and to conceive: that is, *create concepts*. A critical and self-reflective approach to philosophy of education demands establishing a dynamic – nomadic – connection between geophilosophy and the pedagogy of the concept *per se*. Deleuze and Guattari conceptualize concepts as fragmentary wholes existing in relations to other concepts on the plane. They are “only created as a function of problems which are thought to be badly understood or badly posed (pedagogy of the concept)” (Deleuze & Guattari, 1994, p. 16), yet they are not just discursive (they do not link propositions); they are in/corporeal and always express an event, not an essence. Philosophy as a kind of constructivism has two complementary aspects: the creation of concepts and the laying out of a plane (of immanence) with its imaginary, forever vanishing, line reaching towards the horizon of events. Deleuze and Guattari are not interested in concepts in order to determine what something is, that is, its essence, or being. Rather they are interested in the concept as a vehicle for expressing an event, or becoming. Event is a singularity expressed by means of plotting a concept on a plane: concept as an event “secures... linkages with ever increasing connections” (Deleuze & Guattari, 1994, p. 37). The unpredictable connections presuppose not the transmission of the same but the creation of the different: the process that has important implications for education as a developing practice of the generation of new knowledge, new meanings.

Transcoding is one Deleuzian neologism used to underline an element of creativity, of invention. Pedagogy of the concept would defy the habitual transmission of facts from a teacher to a student; instead education becomes “a transcoded passage from one milieu to another... whenever there is transcoding ...there is... a constitution of a new plane, as of a surplus value. A melodic or rhythmic plane, surplus value of passage or bridging. ... [T]he components as melodies in counterpoint, each of which serves as a motif for another...” (Deleuze & Guattari, 1987, pp. 313-314). Thus, education grounded in philosophy defined as the process of concepts-creation becomes possible only providing a teacher and a student serve as a motif for each other. Musical metaphors enable Deleuze to articulate the dynamics of the process, and a surplus value implies growth in meanings and an increase in power: *what the body can do!* Yet, in the present state of society in our information age, its principal technology of confinement may restrict *what the body can do*, both explicitly and implicitly. Deleuze contrasts Foucault’s disciplinary societies with the control societies operating through continual control and instant communication, so that it is control (as in William Burroughs) that becomes a new form of power. New open spatial forms – open systems rather than closed systems – are those interconnected, flexible and networked *architectures* that are supplanting the older enclosures. In practice, these new open institutional forms of punishment, education and health are often being introduced without a reflective and critical understanding of what is taking place.

Deleuze provides the following poignant vision anticipating the spread of the institutions of perpetual training and lifelong learning: “One can envisage education becoming less and less a closed site differentiated from the workplace as another closed site, but both disappearing and giving way to frightful continual training, to continual monitoring of worker-schoolkids or bureaucrat-students. They try to present it as a reform of the school system, but it’s really its dismantling” (Deleuze, 1995, p. 175). In the same way that corporations have replaced factories, schools are being replaced by the abstract concept of continuing education. By turning exams into continuous assessment, education itself is “turning... into a business” (Deleuze, 1995, p. 179). In this manner, new forms of schooling become the means to provide a continuous stream of human capital for the knowledge economy. If and when human capital replaces *humans*, then, as Deleuze argues, individuals become *dividuals*, a market statistic, part of a sample, an item in a data bank. Yet, it is desire that, in its movement along the transversal line of flight (another of Deleuze’s neologisms), can disrupt the prevailing order of things by producing effects in terms of the Deleuzian present-becoming which is always already collective and social.

Deleuze used to say that we ourselves are made up of lines; lines move us, and the strangest line is the one that carries us across many thresholds towards a destination, which is not foreseeable and unpredictable. There is always a space for further explication, for forming yet another transversal line. Chapter 1 in this collection represents one such line of flight towards the new and unpredictable as taken by Ronald Bogue in his powerful essay “Search, Swim and See: Deleuze’s Apprenticeship in Signs and Pedagogy of Images”. It is images, and not linguistic

propositions, that are part and parcel of the very creation of concepts. Bogue employs Deleuze's work on Proust to suggest a model of learning based on explication of non-linguistic signs, such as involuntary memories, images, or immaterial artistic signs. Noticing that Deleuze does not address the topic of education explicitly, Bogue introduces several of his original texts where the indications of a Deleuzian approach to analyzing certain aspects of the process of learning and teaching are nevertheless present.

An educational model suggested by Deleuze/Bogue is based on apprehending signs understood as hieroglyphs that point beyond themselves and require a creative unfolding of the elements enfolded within them if they are to be deciphered. Learning is a means of unfolding signs in practice, and an apprenticeship consists of a progressive exploration of signs and their signification. Deleuze discusses Proust's *A la recherche du temps perdu* as the story of the narrator's "apprenticeship in signs", tracing the stages whereby young Marcel learns that signs are to be apprehended in terms of neither objective nor subjective criteria, but solely in terms of their immanent problematic instances. Deleuze suggests that genuine education proceeds through a deregulation of the senses and a shock that compels thought against its will to go beyond its ordinary operations. In *Cinema 2: The Time-Image* – another source being discussed by Bogue – Deleuze adds to our sense of what an apprenticeship entails when he speaks of Godard's cinema in terms of "pedagogy of images". The medium of film embodying concrete instances of the general pedagogical process typical of Godard's cinema teaches us to see otherwise. This cinematic unlinking of conventional sequences of images and texts and the subsequent re-assemblage of the disparate components in productively disruptive juxtapositions is a mechanism both for inventing signs that foster creativity and for generating problems that make possible fresh questions and solutions. In this sense, Godard's pedagogy of images is a continuation of the Proustian apprenticeship in signs but also an educational encounter with problems that Deleuze addressed in his work *Difference and Repetition* and that Bogue analyzes in detail in his chapter.

Bogue takes us to Deleuze's analysis of Leibniz's logic as the unfolding of internal difference that continuously differentiates itself thereby constituting an infinite learning, *apprendre* in French, hence apprenticeship. The philosophical problem, for Deleuze, is more than a mere question with a single corresponding solution; instead, it is a condition of possibility within which specific questions may be framed. The problem is immanent within questions, and it is not exhausted as the questions are answered. Pointing out that for Deleuze to teach means to learn, Bogue tells us that learning is a process of immersing oneself in a problem and then seeking out the various questions and solutions that the problem makes available to thought. Bogue also brings into the conversation Deleuze's unorthodox philosophy of mind that includes subliminal micro-perceptions and "reading" visual images as genuine pedagogy inseparable from a critique of conventional codes.

For Deleuze, nomads always appear in the lines of flight of social fields. Nomadic existence is always in the process of becoming-other, and David Cole

addresses “Deleuze and the narrative forms of educational otherness” in his contribution to this volume. In Chapter 2, Cole tackles the major Deleuzian theme of otherness and applies it to the narrative forms in education. Cole suggests that the educational narratives can be broken down into the following: legitimization, language-games, the language of desire, nomadism, singular otherness, relative and consumer otherness, and curriculum otherness. Education can produce otherness through the processes of legitimization that Cole relates to the means used by students as a mode of reaction to the ways in which scientific discourses overlay and over-code their realities. Otherness becomes a fact of life in terms of the language-games that teachers and students employ when dealing with power relations and naming what is happening in those relationships. Deleuzian desire has a role to play: otherness is present in education through the ways in which language is produced and as related to desire. There is educational otherness in the nomadic elements of contemporary society, for example, the global movements of people and technological innovations such as mobile phones that have by necessity transformed our relationships with means of communication. Cole says that singular otherness may come about in education through what Deleuze and Guattari term as the qualitative unconscious or the plane of immanence. Finally, there is otherness in our construction of the curriculum in that it may provoke a disconnection with actual teaching and learning, as knowledge has been bounded and separated from the actual action. It is at this point that we may discern the solution to otherness embedded in Deleuze and Guattari’s philosophical thought: Cole’s essay explores otherness by means of constructing the Deleuzian plane of immanence so that the forces of otherness serve as a means to escape entrapment in rigid boundary conditions in the space of education.

Clair Colebrook’s essay “Leading Out, Leading On: The Soul of Education” leads us out (pun intended) from habitual ways of thinking about education and towards a new territory, towards a new truth posited not as a solution but a genuine problem in the Deleuzian spirit. As she indicates in Chapter 3, leading thought away from a current opinion is not the imposition of a higher truth but the provocation to problematize, and to think first of all the truth of problems rather than of solutions. Her essay is exemplary in its provocation to indeed problematize education according to Deleuze and also in connection to the philosophy of Heidegger and Foucault. Deleuze’s concept of desire is related by Colebrook to Socratic Eros and thus to pedagogy understood as a process of leading thought away from the already defined opinions and appearances to a desire embedded in the very questions we pose and that will have transformed the very being of a particular question/problem. She notices that Deleuze overturns Platonism by means of deconstructing the opposition between truth and sophistry². Importantly, Colebrook is also leading us to the political problematics which one encounters when facing the very soul of education with its Socratic intensification of Eros: the politics of critique, enlightenment, and the problem of avoiding us ourselves becoming a higher authority on a presupposed truth. Colebrook’s analysis of Deleuze’s ontology and his positing the relations as external to their terms ensure

that *learning* is a task that thought must actively perform in order to intuit the powers that compose relations.

Literary texts, for example, have a certain power to provoke new relations. To learn is equivalent to being led out from oneself; thus one must intuit the desire as that singular striving from which any text emerges. Deleuze's philosophy posits thinking as a mode of desire; this, for Colebrook, leads to two consequences. Thought not only becomes different according to the problems it approaches; significantly, true thinking always moves beyond established relations and constituted terms to the *other* desire in a given encounter. Noticing the difference between Deleuze and Guattari's schizoanalysis and "old-fashioned" Heideggerian hermeneutics, Colebrook emphasizes that the problem's sense consists not in disclosing its being, but in its very assault on method and being. Colebrook suggests that, in the educational context, we should be on the lookout for the force of a text, for the problems of history, for the genesis of new concepts rather than just staying in the constituted discursive field.

Jacques Daignault's essay entitled "Pedagogy and Deleuze's Concept of the Virtual: An illustration of a 'machine à détonner' in the analysis of free software" (translated from the original French by Brett Buchanan) explores the activity of pedagogy as an immanently creative exercise contributing to the common good. Taking Deleuze's philosophy as an inspiration and the Internet as a focal point, in Chapter 4 Daignault draws a parallel between the open source movement that advocates accessibility to free software and information, and the pedagogical liberation entailed in the free and open exchange of ideas. Deleuze's concept of the virtual is extended to the ontological dimension of the Internet where, far from being a copy or representation of the world, the Internet and cyberspace are held to be just as real as the world itself. Daignault suggests that the conception of the virtual addressed by Deleuze in his many works promptly invites questioning of the phenomenon of the Internet. And not only in terms of a controlled society, but in the declension of the concept of virtuality as a *machine à détonner*, where the emphasis on pedagogy would constitute an example *par excellence*. If the Internet can be called virtual, it is because it is a real stratum, and not merely a simulacrum, of the world.

Daignault's analysis of the virtual further emphasizes the creativity of problems and questions that is at work within all that is actual. Rather than considering pedagogy as leading toward solutions and answers, as hoped for by established curricula, pedagogy is akin to the virtual in that it demonstrates, in its creative function, the art of problems/questions opened within what Daignault calls "the pedagogical parenthesis." Pedagogical parentheses suspend the formal laws, norms, and obligations of teaching (as set out, for example, by the contract of the syllabus), only in order to paradoxically realize the aims of the contract through its very suspension. In a sense, we fulfil the pedagogical contract by allowing for the opening of a little slice of chaos, a bit of the unpredictable and unknowable. As a cooperative engagement, teaching and learning – just like the arguments on behalf of free software and open source licensing – can ensure future becoming through the sharing of free knowledge as it leads towards common good and mutual

enrichment. Daignault concludes that by bringing Deleuze's philosophy into education we become able to sustain pedagogy as a free creation and offers his personal insight into the activity of teaching. Just as the creation of concepts is the task of the philosophical method for Deleuze, the creation of pedagogical parentheses is held by Daignault to be the object of educational practice. As a performative activity, his brief account of free software itself performs a creative parenthesis within the body of his essay. In a Deleuzian manner, Daignault's essay unfolds into a pedagogical act within a creative *milieu* of the nomadic distribution of ideas.

Gary Genosko's essay "Felix Guattari and popular pedagogy" delivers a long-overdue homage to Guattari among the chapters in this volume. Guattari is mostly known to us for his collaborations with Deleuze, Negri, Alliez, and other post-'68 figures in French thought. In Chapter 5, however, Genosko explores Guattari's unique path as connected to pedagogy and, especially, the youth hostel movement that started when Felix was a teen. Genosko draws a picture of Guattari derived from his involvement in working with marginalized, delinquent, pre-delinquent, and emotionally challenged children. Exploring the relationship between hostelling, far-left militancy, and popular pedagogy, Genosko presents a detailed analysis of how all three influenced Guattari's experiments with transdisciplinary groups in psychotherapy later in life and have led to his practising schizoanalysis. Guattari was learning the very texture of the lessons about organization in extra-curricular youth activities in the hostels movement and from "Institutional Pedagogy". Presenting in depth both history and geography of "Institutional Pedagogy" in France, Genosko examines a critical perspective on institutional psychotherapy in the pedagogical context. Felix Guattari had an ongoing interest in the Group for Therapeutic Education, singling out the role played by the importance given to singularization, that is, a self-organizing process involving the constitution of an assemblage of components, relations with other assemblages, and the analysis of their effects on the constitution of subjectivity. It is a group that is a (collective) subject, and Genosko describes Guattari's sense of a subject-group that formulates its own projects, speaks and is heard, and puts itself at risk in pursuing its own ends and taking responsibility for them. We may conclude that the fact that popular pedagogy and democratic education through scheduled work were privileged over traditional psychoanalysis is the key to such important conceptualizations in the collaborative works by Deleuze and Guattari as transversal communication and transversality, assemblages of enunciation and desiring-machines, a-signifying semiotics and pre-personal singularity. As Genosko notices, these terms would not comprise a traditional philosophical universe of references. They constitute social tools for articulation of individual and collective affects and recomposing the components of subjectivity. The pragmatic effects consist in new kinds of responsibility that can be taken, new constructive and productive ways of seeing and living that can be accomplished; that is, all the objectives that are as important for therapy as they are for education.

Deleuze used the biological notion of a rhizome as a metaphor for multidirectional growth and diverse productivity. Noel Gough structures his essay

“Becoming-Cyborg: a rhizomANTic assemblage” as a narrative experiment inspired by Deleuze and Guattari’s figuration of a rhizome. In Chapter 6 Gough deploys the conception of cyborg in popular and academic media to question some taken-for-granted assumptions of curriculum theory, teaching, and learning. He demonstrates how Deleuze’s conceptual inventions can generate productive and disruptive agendas in educational research. Gough coins the term “rhizomANTic” in the manner of Deleuzian neologisms and connects Deleuze-Guattarian rhizomatic method with an actor-network theory, or ANT, as well as with Haraway’s innovative metaphor of semantics. He elucidates the intertextual relationships between research texts and fiction by using Deleuze’s philosophy as both a catalyst and a particular inflection. Gough’s essay demonstrates how the explorations of the fiction genre in/for educational inquiry converge with Deleuze’s philosophical concepts. Referring to *Difference and Repetition* (1994) where Deleuze states that a book of philosophy belongs to a kind of science fiction, Gough re-enacts a similar disposition by presenting and performing educational research methodologies in a variety of fictional modes.

Gough argues that understanding cyborgs as assemblages of socio-technical relations provides a generative conceptual framework for imagining and developing productive posthuman pedagogies, that is, approaches to teaching and learning hospitable to emergent cyborg subjectivities and corporealities. He presents cyborg pedagogy as an educational practice for science teachers. Gough places particular emphasis on the narrative construction of cyborgs within the experiential practices of intertextual machineries and explores their functioning as novel resources for transforming the discursive fields in which they circulate. A specific *Cyberantics* assemblage, Gough claims, can work as a Deleuzian figuration to inspire science educators, especially because *Cyberantics* functions as a complex system displaying the properties of what contemporary science calls chaos and complexity theories. Noticing that some cyberpunk science fiction narratives bring to mind the synergistic links between Prigogine’s theory of self-organization and the cybernetic project of building intelligent artefacts, Gough relates *Cyberantics* to a postmodern science education text and imagines teaching and learning as assemblages of sociotechnical relations embedded in and performed by shifting connections and interactions among a variety of organic and textual materials. It is such a rhizomANTic assemblage that lives on and disrupts the manicured lawn of formal education. For Gough, the kinds of cyborgs that we and our children are becoming are shaped and reshaped by the pedagogical stories we mutually construct.

Becoming-cyborg is part and parcel of Deleuze’s generic concept of *becoming-other*. Any becoming is always already *becoming-minor*. Nomadic tribes wandering in the smooth space of the steppe represent a Deleuzian minority. Zelia Gregoriou’s essay develops this particular trope of Deleuze’s in the context of educational philosophy. In Chapter 7, entitled “Commencing the Rhizome: Towards a minor philosophy of education”, Gregoriou argues that an experimental encounter with Deleuzian thinking will liberate educational philosophy from being limited to established meanings, communicability, or an ideal speech act. The emerging

image is that of what Deleuze would have called a *minor* philosophy of education, the latter in no way alleging, as Gregoriou points out, any inferiority or immaturity but instead carrying within itself a creative force of multiplicity and openness. Gregoriou follows up Lyotard's analysis of the postmodern condition, aiming to reclaim philosophy of education from its nuptial arrangement with the social sciences by means of "commencing the rhizome" and bringing Deleuze's novel concepts (of which rhizome is just one) into educational discourse. Referring to the apparent lack of communication between philosophers and educators addressed at a recent symposium, Gregoriou turns to the effects of *becoming-minor* as a possibility to deterritorialize philosophy in terms of creating an unformed philosophical expression for each of many singularities in the field of experimentation, including the field of the classroom, permeated by collective enunciations. She posits pedagogy as analogous to Deleuzian philosophy at the $(n - 1)$ dimension: not a progressive build-up of knowledge based on firm unshakable foundations but respect for the singular, picking up multiple disparate ideas and linking them into future possibilities.

Deleuze and Guattari's *rhizome* exemplifies nomadic movements across spaces: as embedded in a particular situation, rhizome goes in diverse directions instead of a single path, multiplying its own lines and establishing the plurality of unpredictable connections in the open-ended smooth space of its growth. If Zelia Gregoriou has commenced one particular rhizomatic line in her essay, it is Chapter 8, co-authored by Eileen Honan and Marg Sellers, that *traverses* it with another rhizomatic line in their essay entitled "(E)merging methodologies: putting rhizomes to work". Rhizome, for Deleuze, is a multiplicity irreducible to a single root that would have represented a research methodology grounded in an orthodox scientific method. Using Deleuze's figuration of a rhizome as fruitful in/for education, Honan and Sellers explore two different approaches to the development of a rhizomatic methodology in educational research. In a rhizomatic fashion, Honan and Sellers map the connections and disconnections between and across different educational pathways. Three connections are described: first, writing a rhizomatic text, which is non-linear and deliberately designed to be a part of the research method itself. The authors reflexively and critically examine the construction of their essay as an illustration for, as well as a description of, the partial and transgressive nature of writing rhizomatically within the broad field of educational research. Second, the authors argue that using the rhizomatic image of thought in order to analyse the discourses operating within data requires a specific "rhizo-textual analysis" of the intersections and connections between various discursive *plateaus*. This type of analysis is undertaken to provide an account of how an individual child is constituted within policy texts.

The authors, finally, follow Deleuzian lines of flight that connect and link disparate forms of data to arrive at (im)plausible readings and interpretations constituting analysis of the multiplicity of writing, artworks, video, and interview transcripts. They follow and cross over the multiple rhizomatic lines to provide an (unlikely) account of the linkages between the construction of the individual child in a syllabus text devoted to the teaching of English, and the construction of what

they call the rhizomatic child within moments of informal playing in an early childhood setting. Honan and Sellers assert that the multiplicity of various disconnections is provided as an illustration to the thesis of the impossibility of establishing some kind of formulaic methodology that would have neatly answered Ian Buchanan's question, in the context of social critique, of "how does it work?" Being aware of the dangers of what Sandra Harding called "methodolatry," the authors offer their essay as one particular and specific reading of the contributions that Deleuzian theories and his philosophical method can and should make to educational research methodologies.

David Lines' essay exemplifies a specific variation on Deleuze's thinking in the context of music, and art in general, and explores the theme, which is attuned to more improvisational images of thought. Chapter 9, titled "Deleuze, Education, and the Creative Economy", problematizes the current approach to education understood in terms of the knowledge economy that employs the reductive concept of creativity. What is habitually understood as "creativity" in our age is aligned with the production of capital, technical innovations, and the presentation of fast knowledge via digital communication channels. Deleuze's understanding of art and creativity is however, as Lines tells us, very different. Art is first and foremost creative; yet Deleuze's way of conceptualizing *creativity* differs noticeably from many recent performative projections of the concept of creativity that often manifest in a wide range of fields including business, management and education. Lines' essay purports to examine how creativity presents itself in different contexts, often as a part of a family of concepts in and around teaching and learning in the creative, cultural, and knowledge industries.

For Lines, the performative function of creativity is *machinic* (as Deleuze would have said) in its both repetitive and different role and considering its impact(s) on cultural change. Yet, in educational contexts these forces and images can cause difficulties, particularly if and when they simply help to reinforce dominant, normative educational practices that obscure emergent or *minoritarian* knowledge. Such notions and performative functions would stand in stark contrast with Deleuze's philosophical thinking as artistic! With this difference in mind, Lines presents Deleuze's ideas as providing an important insight into everyday practices of teaching and learning and the ways of conceiving specific teaching activities such as planning and assessment. Lines notices that the difficulties of working with economic discourse in educational sites still remain. He concludes his chapter by asserting that – as economic forces remain embedded in all forms of culture – it is not sufficient to say that a Deleuzian artistic-creativity on the one hand is superior to production-creativity on the other. The exploration of Deleuze's ideas, however, opens up possibilities of how art can be a force of change even within existing confining cultural forces in education. The artistic and creative potential in an image of a rhizome, or a deterritorializing impulse, is frequently used by Deleuze in order to, as Lines claims, describe an often-untimely line of thought that is strategically different in quality to representational or "captured" expressions of thinking. This movable and changing line is nomadic in its essence. Lines argues that Deleuze sees art in terms of a musical and improvisational creative force

functioning as a catalyst for new directions in education and new modes of learning.

Todd May and Inna Semetsky's essay "Deleuze, ethical education, and the unconscious" addresses the ethical dimension of Deleuze's philosophy in the context of education and pedagogy. Chapter 10 proposes and explores several conceptual shifts important for education as derived from Deleuze's ethics and his unorthodox practical "epistemology". The authors suggest that it is what we do *not* know, rather than what we do, that is of educational significance. The corollary is that education is to be committed to experimentation rather than transmission of pre-existing facts or inculcation of given values in the classroom. Taking a metaphysical turn, the authors agree with Deleuze that Being (with a capital B) can be conceptually approached and contrast the logic of identity of Anglo-American philosophy with Deleuze's logic of difference and multiplicities. They refer to the Deleuzian *real* as comprising both the virtual and the actual; and make a conceptual shift to the level of the unconscious akin to the virtual, potential tendencies. Drawing from Deleuze's ontology of the virtual, May and Semetsky assert that much of our world, as well as our learning, are unconscious rather than conscious. They distinguish ethics from traditional morality and insist that ethical education in its actual practice is to be informed by Deleuze's larger ontology. Abandoning the idea of values as a set of identities leads, as the authors assert, to an important question of what we might be able to make of ourselves. For Deleuze, it is the evaluation of experience, and not a conformity to prescribed values, that characterizes our ways of being and modes of existence.

May and Semetsky insist that the learning process involves what Deleuze called the conquest of the unconscious, hence the process of thinking and learning is both cognitive and corporeal, therefore by necessity having its unusual origin in practice and not in theory. The authors bring into the conversation Deleuze's philosophy of language with its creative and expressive potential, which is capable of retrieving the structures of the unconscious and making us see, think, understand, and create! Pedagogical experiment and classroom experience involve both a teacher and a student whose roles become those of a creative artist or an inventive scientist and who would have abandoned the common sense in favor of experimentation. The authors make it clear that Deleuzian ethical education would involve not just our minds but our whole lives. Ethical education is creative because it takes us to places that are not there until they are created from the virtual out of which we live: values are produced in practice when we venture into unknown territory for which new concepts are to be invented. A thorough analysis of Deleuze's ontology, logic, and ethics allows the authors to propose that Deleuze's practical philosophy tends toward Nel Noddings' ethics of care in education.

There exists a question paramount to education: What is language as praxis, as both possible and actual transformation? This is a question with which Kaustuv Roy wrestles in his contribution to this collection. Noticing that the notion of communication historically presented itself in a troubled fashion, Roy remains pessimistic even of Habermas' efforts to work out its conditions of possibility. Instead, Roy turns to Deleuze's unorthodox philosophy of language and his

approach to communication, making them the focal points (or should we say, lines? Lines of flight?) of his essay entitled “Deleuzian murmurs: Education and Communication”. In Chapter 11, and thinking along with Deleuze, Roy presents Deleuze’s argument that language is not just a medium but an ontological entity, which is constantly mixing itself up with physical materiality. What are the implications of this analysis of language for communication and educational practice, asks Roy. Can language directly enter into voice? And if so, how does it get beyond the slogans or what Deleuze and Guattari dubbed in terms of order-words with which language immediately orders reality? Starting his essay with the critique of communication based on the Deleuzian critique of representation, Roy aims to draw the distinction between language and code and explore the political and performative dimension of the communicative act. Roy makes it clear that any direct communication (that is, pure repetition without any intervening difference) is plainly impossible; instead there are two kinds of interchanges that occur between language and bodies and to which Deleuze refers as the incorporeal and corporeal transformations. The performative effect of an interchange is a becoming of part-subjects produced as a partial outcome of the existentializing function, as Felix Guattari would have called it. The existentializing function is akin to the expressive or performative aspect of language that, in its functioning as an experiential event, breaks down the schemata of certainty and representations. According to Roy-Deleuze, this function represents a direct challenge to the conception of communication as simply a transmission of code(s). Instead there is a process described by Roy in terms of “an ongoing activity that is ever-present as differential murmurs between the order of things and the order of words”. For education and pedagogy, a reciprocal relationship between physical bodies and language and their mutual transformation means, as Roy asserts, that we can escape the settled reality of order-words and begin to partake in the social production of being, thereby becoming able to micropolitically heal the private-public split.

Considering the pessimistic attitude towards Habermas’ theory of communicative action taken by Kaustuv Roy in his chapter and that Deleuze himself used to denounce the so-called universals of communication, the essay written by Inna Semetsky and Terry Lovat represents a formidable challenge to such a perspective. Chapter 12 is entitled “Knowledge in action: towards a Deleuze-Habermasian critique in/for education”. The authors construct a shared framework for Deleuze’s philosophy and Habermas’ critical theory by virtue of the common pragmatic dimension inherent in their approach to knowledge. For both, the value of knowledge lies in its practical import at the level of action. The authors explore three ways of knowing as articulated by Habermas and position them alongside Deleuze’s method of nomadic inquiry which supplements strict analytical reasoning (akin to Habermas’ first cognitive way) with a broader format of diverse forms of cartographies aiming at the mapping of new directions for praxis. Presenting the theory-practice nexus as defined by everyday engagements with knowledge production, Semetsky and Lovat specifically focus on the experimental and experiential dimension as providing an opportunity for the emancipation of the “nomadic subject” in terms of critical freedom.

Experience is rendered meaningful by means of exercising a specific self-reflective, or critical, mode of thinking and knowing, which the authors posit as the most significant for Deleuze and Habermas alike. Deleuze was explicit in this regard when he described such thinking in metonymic terms: entering an echo chamber and creating a feedback loop (Deleuze, 1995). Semetsky and Lovat also address a complementary aspect of critical thinking, namely its clinical or ethical dimension, and arrive at several important implications for moral, or values, education. They argue that a moral subject cannot be reduced to an individual agent but is always intersubjective or relational. Such a relational “self-other” agency must embody a creative thinker capable of evaluating new experiences and making sense out of/for problematic and conflicting experiences embedded in social relations. The analysis (and synthesis) of Deleuze-Habermasian critique leads Semetsky and Lovat to posit questions crucial for the actual educational process (How can education in the form of nomadic inquiry be implemented in practice? How can knowledge be enacted?). They imagine the three modes of knowing in the context of classroom discussions asserting that critical evaluations demand our self-reflection on past-present-and-a-possible-future; engaging with the most strange and unfamiliar others at the interpersonal level; as well as confronting ourselves. The authors’ conclusion is like a musical chord in their saying that we become authentic selves while engaging in the practice of becoming-other.

Back in the 1990s, it was Elizabeth St. Pierre’s pioneering qualitative research in education modelled on Deleuze’s method of nomadic inquiry that introduced Deleuze’s thought into educational discourse, even if not yet in a systematic manner. In her essay in this volume (Chapter 13) titled “Deleuzian Concepts for Education: The Subject Undone”, St. Pierre emphasizes Deleuze and Guattari’s approach to philosophy as the creation of new concepts. She employs and analyzes Deleuzian concepts to rethink the subject and explores the conceptualizations of individuation and subjectivity other than that of the individual of liberal humanism. The construction of subjectivity is effected by nomadic displacements, foldings, unfoldings, and refoldings; and educational research based on the methodology of the fold is presented by St. Pierre as science in its most provocative form. St. Pierre’s chapter explores Deleuze’s intensive way of reading a text as an experiential interaction with the field of *the outside* and demonstrates the extent to which Deleuze’s concept of individuation is useful in educational theory and practice. St. Pierre says that Deleuze’s early premonition of education as turning into business has indeed become a reality at the level of American federal policy that privileges a single model of educational research method with its top-down linear rationality and conformity to mandatory theory. She describes in detail a session at one of the annual meetings of the American Educational Research Association as, in effect, an erasure of the last fifty years’ advance in qualitative research in education.

Addressing the ethico-political dimension of Deleuze’s philosophy, St. Pierre focuses on the problem of the postmodern subject as a Deleuzian assemblage, both human and nonhuman, and on the pragmatic value of subjectivity. Positioning Deleuze’s novel concepts in the field explored by Foucault, Butler, Haraway,

Derrida and Spivak, St. Pierre reminds us of the fragility of a subject situated within the conservatism of oppressive power relations in the educational community – yet it is precisely Deleuze’s untimely memories of the future that help us in imagining a time to come in which the present struggle may change. St. Pierre asks an important question of how one can read a philosopher like Deleuze and not be transformed in some way. Her answer is unequivocal: once we start using in practice the *nomad, rhizome, middle, line of flight* to think about the world, we will live differently. St. Pierre notices that one form of resistance to the scientism based on the set of established norms involves accomplishing scholarship that would have upset the given order and presents her essay in this volume as a form of resistance aiming to create a critique of accepted values and, in the Deleuzian spirit, to indeed bring something new to life.

Each author who contributed to this collection did not write their essay with an Ego or merely Cartesian *Cogito* – but also with affect and desire, transforming and creating anew the nomadic space of education by this very experiment. For Deleuze, “[I]n the act of writing there’s an attempt to make life something more than personal, to free life from what imprisons it” (Deleuze, 1995, p. 143). The philosophical/educational function is both critical and clinical: the *present-becoming*, by definition, has a re-valuative and untimely flavour. The future form of philosophy encompasses both a resistance to the present and a diagnosis of our actual becomings in terms of what Deleuze called becoming-woman or becoming-minor, but also in terms of becoming-revolutionary, becoming-democratic, becoming-pedagogical. Such is the role of the philosopher – including an educational philosopher – as a clinician or the physician of culture described as “an inventor of new immanent modes of existence” (Deleuze & Guattari, 1994, p. 113). In the passage from one milieu to another, each author in this collection contributed to the construction of meanings and concepts analogous to Deleuze’s ingenious “immanent conception” (Deleuze, 1995, p. 144). This volume exemplifies the general principle of composition in music that cannot be given, according to Deleuze, in a directly perceptible or audible relation to that what it provides. Readers will enter into the multiplicity of folds which comprise this book, re-en-folding each chapter and marking new directions when taking zigzagging lines of flight into that what is yet to come so as to set conjunctions and conjectures free.

NOTES

- ¹ Acknowledgment: Chapter 1 is a reprint of Bogue, R. (2004). Search, Swim and See: Deleuze’s apprenticeship in signs and pedagogy of images. In I. Semetsky (Ed.), *Educational Philosophy and Theory*, special issue Deleuze and Education, 36(3), pp. 327-342.
Chapter 7 is a reprint of Gregoriou, Z. (2004). Commencing the Rhizome: Towards a minor philosophy of education. In I. Semetsky (Ed.), *Educational Philosophy and Theory*, special issue Deleuze and Education, 36(3), pp. 233-252.
Chapter 13 is a reprint of St. Pierre, E. A. (2004). Deleuzian Concepts for Education: The subject undone. In I. Semetsky (Ed.), *Educational Philosophy and Theory*, special issue Deleuze and Education, 36(3), pp. 283-296. Thank you to Blackwell Publishers for permission to reprint.

- ² The oft-cited reversed Platonism of Deleuze should be taken with a grain of salt, in the opinion of the Editor. To remind the readers, "...there's no point at all doing philosophy the way Plato did, not because we've superseded Plato, but because you can't supersede Plato, and it makes no sense to have another go at what he's done for all time. There's only one choice: doing the history of philosophy, or transplanting bits of Plato into problems that are no longer Platonic ones" (Deleuze, 1995, p. 148).

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Inna Semetsky
The University of Newcastle
Australia

RONALD BOGUE

1. SEARCH, SWIM AND SEE: DELEUZE'S APPRENTICESHIP IN SIGNS AND PEDAGOGY OF IMAGES

Deleuze was a remarkable polymath, capable of bringing penetrating insights to a wide variety of disciplines. The number of topics addressed during his career was considerable, ranging from mathematics, biology, psychology, political science, and anthropology to logic, ethics, painting, literature, metallurgy, and the decorative arts. One might assume that as a lifelong academic Deleuze would have turned his attention to the subject of education with some frequency, but in fact he dedicated only a small portion of his energies to this field. He did, however, devote a few passages of *Difference and Repetition* (1969) to the relationship between thought and learning that are especially suggestive. These passages summarize the salient points he had developed in his 1964 study *Proust and Signs*, in which he approached Proust's massive *A la recherche du temps perdu* as an extended apprenticeship in the explication of signs. The question of teaching and its relationship to learning he left largely unexamined in these two works, but in *Cinema 2: The Time-Image* (1985), Deleuze spoke briefly of a "pedagogy" of images in the films of Godard, and from these remarks on Godard's treatment of sound and sight one can discern the outlines of what might constitute a Deleuzian theory of teaching. Taken together, Deleuze's studies of learning in Proust and teaching in Godard provide a map of directions one might pursue in developing a Deleuzian philosophy of education.

SEARCHING

Proust's *Recherche*, as its French title indicates, is a search for lost time, but Deleuze insists that this search is oriented toward the future rather than the past. Marcel, the hero of the *Recherche*, indeed explores memories of the past, but only as part of an apprenticeship that eventuates in his becoming an artist. His exploration of lost time is merely part of a search for the *truth* of time, which is one with the truth of signs. Signs for Deleuze are not transparent media for the communication of information. Rather, they are hieroglyphs, enigmas that point beyond themselves to something hidden. In this sense, the moon as sign is a bright surface gesturing toward its dark side. Every sign has something enfolded within it, something "other," that must be unfolded if it is to be understood. The interpretation of signs, then, is a matter of "explicating," or unfolding (from Latin *plicare*: to fold), that which is "implicated," or enfolded.

Deleuze identifies four kinds of signs in the *Recherche*: the worldly signs of polite society; the amorous signs of passion and jealousy; the evanescent sensual signs of involuntary memory; and the immaterial signs of art. Worldly signs are vacuous, with no genuine content, but they force Marcel to unfold their mysteries, to determine why one person is admitted to a given social circle, why another is snubbed, who belongs to which milieu, what constitutes the tone and relative prestige of a particular coterie, and so on. Amorous signs point toward the worlds hidden in the beloved, toward all those places the beloved inhabits when the lover is absent. The truth of these signs is revealed through jealousy, which compels the lover to unfold the mysteries of the worlds which are enfolded in the beloved and from which the lover is forever excluded. The sensual signs of involuntary memory are like the madeleine, whose taste suddenly fills Marcel with great joy as the unexpected presence of the Combray of his childhood comes over him. Such signs Marcel compares to tiny pieces of Japanese paper that, when placed in water, unfold and expand to reveal hidden landscapes imprinted on their surfaces. As Marcel observes of the savor of the madeleine he has just dipped in his lime tea, “in a moment all the flowers in our garden and in M. Swann’s park, and the water-lilies on the Vivonne and the good folk of the village and their little dwellings and the parish church and the whole of Combray and its surroundings, taking shape and solidity, sprang into being, towns and gardens alike, from my cup of tea” (Proust, 1982, vol. 1, p. 51). The signs of art, finally, are signs of essences, manifestations of originary worlds that unfold within the material form of a given artwork but transcend that matter and reveal the truth of the cosmos as a dynamic process of self-differentiation.

Deleuze reads the *Recherche* as the record of an apprenticeship (*apprentissage* in French), or process of learning (French *apprendre*: to learn), and all learning, he asserts, proceeds via the interpretation of signs. “Everything that teaches us something emits signs; every act of learning is an interpretation of signs or hieroglyphs. Proust’s work is based not on the exposition of memory, but on the apprenticeship in signs” (Deleuze, 2000, p. 4). By “learning” Deleuze clearly does not mean the mere acquisition of any new skill or bit of information, but instead the accession to a new way of perceiving and understanding the world. To interpret signs is to overcome “stock notions,” “natural” or “habitual” modes of comprehending reality (*ibid.*, p. 27). What often passes for learning is simply the reinforcement of commonsense notions, standard codes and orthodox beliefs. But the commonsense, conventional, orthodox world is ultimately illusory. Genuine learning, the learning through signs, takes us beyond the illusions of habit and common sense to the truths of what Proust calls “essences” and Deleuze labels “differences.”

The usual assumption is that thought voluntarily seeks truth through the exercise of “good will,” but what Proust shows is that the search for truth always commences with a disruptive event that compels thought into action. Philosophy’s mistake, says Deleuze, “is to presuppose within us a benevolence of thought [*une bonne volonté de penser*], a natural love of truth” (*ibid.*, p. 16). The ideas of the philosophical intelligence “are valid only because of their explicit, hence,

conventional, signification,” and “explicit and conventional significations are never profound; the only profound meaning is the one that is enveloped, implicated in an external sign” (ibid., p. 16). Philosophy’s intellectual truths are “abstract and conventional” (ibid., p. 30) whereas the truths of signs are “fortuitous and inevitable” (ibid., p. 16). Only through a chance encounter with an unsettling sign can thought be jolted from its routine patterns, and only through such an encounter will the object of thought cease to be arbitrarily selected and attain the necessity of something that itself chooses thought, that constrains thought and sets it in motion.

Common sense organizes the world according to fixed identities and stable spatial and temporal coordinates, but for Proust and Deleuze the dynamic unfolding of the world is a process that escapes common sense and defies its set categories. That process is a ceaseless becoming in which things perpetually metamorphose into something else and thereby elude identification and specification, but it is also one informed by a virtual domain of “essences” or “differences” that are, in Proust’s words, “real without being actual, ideal without being abstract” (Proust, 1982, vol. 3, pp. 905-06). It is through signs that Marcel learns the truth of essences, and that truth is disclosed initially through revelations of the different forms of time related to each kind of sign.

Worldly signs exhibit the “lost time” of frivolous activity, inevitable decline and universal alteration and annihilation. Amorous signs reveal another type of “lost time,” that of “wasted time” [*le temps qu’on perd*, literally, “the time one loses”] (Deleuze, 2000, p. 21), a time of deception and disappointment which can only be absorbed in retrospect, after the love relationship has come to an end. To an extent, such forms of “lost time” may be accommodated within traditional temporal schemas, but not so the time that emerges in the sensual signs of involuntary memory. The time evoked through the madeleine, the uneven paving stones of Venice, and other such sensual signs is “time regained” [*le temps qu’on retrouve*, literally “the time one finds again”], which in Deleuze’s reading is a version of the time of Henri Bergson’s virtual past.¹ Bergson argues that a memory is not simply a faded or less complex version of an experience that once was present, but something that is qualitatively distinct from any present experience. The past is a single domain in which all past events coexist with one another. This domain is real, though it is virtual rather than actual. At each present moment time splits in two, into a dynamic actual present thrusting toward a future, and a “memory of the present,” a virtual double of the present moment (something like a virtual mirror image of the present) that immediately forms part of the single domain of all past events. According to Bergson, when we try to remember something we leap into the virtual past as if entering a different medium. Once we find the memory we are seeking, we bring it back into the present, but usually in such a way that the memory is made to fit in with our actual, commonsense purposes and activities. As a result, the virtual character of the memory tends to escape our awareness. Only in dreams, moments of déjà-vu and other unusual experiences are we able to perceive the virtual past as it exists in itself.

Deleuze insists that Proust’s moments of involuntary memory are not mere reminiscences but experiences that disclose such a Bergsonian virtual past. In the

case of the madeleine, a common quality—the taste of the madeleine—links a present and a past moment, but in such a way that an “essence of Combray” is released, a virtual Combray that has never been present, save as a virtual “memory of the present.” The great joy that fills Marcel comes from this sudden chance encounter with what Proust calls “a fragment of time in the pure state” (Proust, 1982, vol. 3, p. 905), time outside the ordinary coordinates of temporal succession. Yet Marcel’s accession to the virtual past teaches more than a simple lesson about time, Deleuze insists, for in the experience of the madeleine Marcel encounters “*internalized difference, which becomes immanent*” (Deleuze, 2000, p. 60). The virtual Combray is embodied in the taste of the madeleine, made internal to that taste, immanent within it, and in this sense the madeleine internalizes something different, but that virtual Combray itself is an unfolding difference, an entity whose paradoxical kind of time is merely one aspect of its being as essence.

It is only in the signs of art that Marcel learns the full truth of essences and their relationship to time. The time of art is “recovered time” [*le temps retrouvé*, literally “time found again,” the title of the last volume of the *Recherche*] (ibid., p. 24). Recovered time is the pure form of time, an unspecified temporal medium within which various temporal experiences may be actualized. Its time is like that of the verbal infinitive—“to work,” “to sleep,” “to dream”—a floating time unmoored from any tense, person, mood, or direction, an essence of temporality that serves as a generative medium from which different specific temporal configurations may issue (“I had worked,” “she was to have slept,” “we will have been dreaming,” etc.). Such time, says Deleuze, is “complicated” (ibid., p. 45), a term he takes from certain Neoplatonic philosophers who speak of the cosmos as an enfolded, implicated One that unfolds, or explicates itself in the multiple, the originary state of which, before any explication, is a “*complication*, which envelops the many in the One and affirms the unity of the multiple” (ibid., p. 45). The time of art is a pure essence of time, a perpetual origin of time, as if with each work of art the world were once again coming into being for the first time.

The *time* of art, however, is only one dimension of essences, which are enfolded virtual differences that unfold themselves in the actual world. To a certain extent Proust is Leibnizian, Deleuze claims, in that “essences are veritable monads, each defined by the viewpoint to which it expresses the world” (ibid., p. 41). Leibniz’s logic of “expression” is one of explication and implication, the whole expressing itself by unfolding itself in individual monads, each monad in turn expressing the whole by enfolding the whole as a specific vantage on that totality. In this sense, the world is like a city (to take a Leibnizian figure), which unfolds itself in particular places, each place enfolding the city from a given point of view. Yet in Proust there is no preestablished harmony coordinating all points of view, and hence each monad-site reveals a different city. And each such city is the expression of “difference itself, the absolute internal difference” (ibid., p. 42). What Deleuze means by absolute internal difference is perhaps best understood through the example of a single-cell ovum, which I discussed in Chapter One. Before fertilization, the ovum is crisscrossed by multiple gradients, zones of surface tension and lines of possible division. Of these virtual lines of potential division

only one becomes actualized upon fertilization. At that point, a process of differentiation begins, whereby the one cell splits into two. Rather than regarding this process of meiosis as the mechanical construction of a preformed whole, Deleuze sees it as the unfolding of an internal difference that differentiates itself in an ongoing cascade of divisions. As the one cell divides into two, a process of individuation takes place, but the individuals formed—the two cells—are the result of the process, not its cause. Individuation precedes individuals, and individuation is a process of metamorphosis and becoming, one that produces individuated entities but always continues in further metamorphic activity.

“The world is an egg” (Deleuze, 1994, p. 216) in that the world is a dynamic process of metamorphosis through which virtual difference differentiates itself into actual multiple entities while itself remaining immanent within each of those entities. Everywhere difference explicates itself in multiple entities, and difference remains immanent within each entity, implicated within it. Hence, if the world is a city, it is also an egg, not a static collection of edifices but a living entity in formation. Further, it is neither a single city nor a single egg. Each locus looks out on a different city in formation, and there is no single originary ovum from which the city-organism arises. Differentiation proceeds in all directions at once, and wherever one finds oneself, there a different city is in a process of dynamic emergence. What Marcel ultimately learns through art is that the world is a city-egg in metamorphosis, each locus of which enfolds a difference that is actively unfolding itself. Common sense grasps the world in terms of stable entities and fixed relations, thereby misunderstanding difference in two ways, both as it manifests itself in the metamorphic process of becoming (the passage of the virtual into the actual) and as it exists in itself, as a virtual immanent within the actual. What art reveals is that immanent virtual domain, the domain of difference in itself, something that is “real without being actual, ideal without being abstract,” something that exists outside temporal markers, in a perpetual infinitive of multiple potential temporal unfoldings.

Marcel’s apprenticeship in signs proceeds in two stages and two directions, the first stage leading him from worldly through amorous and sensual signs to the signs of art, the second following a reverse order as he learns to interpret all signs as varying manifestations of internal absolute difference. In the first stage, Marcel must overcome two illusions, those of objectivism and subjectivism. The first is the illusion that the object emitting the sign holds the secret of the sign, as if, for example, the madeleine itself somehow possessed the virtual Combray within its physical being. To make such an illusory attribution is unavoidable, for “Everything encourages us to do so: perception, passion, intelligence, even self-esteem.... We think that the ‘object’ itself has the secret of the signs it emits. We scrutinize the object, we return to it in order to decipher the sign” (Deleuze, 2000, p. /27). Yet once Marcel overcomes this illusion, he falls into a second, the belief that the secret of the sign is merely a matter of subjective association. The problem here is that with subjective associations, anything goes. Any object may be associated with any other object, in which case signs are merely symptoms of their interpreters. What Marcel must finally learn is that the truth of signs is neither in the objects

that emit them nor in the subjects who interpret them but in the differences that are immanent in objects and subjects alike. Art leads Marcel to this truth since in each great art work a unique world is disclosed from a specific point of view, but in such a way that the artist-subject is *produced* by the point of view rather than himself or herself bringing the point of view into existence. Hence, if the world revealed by the great art work is a city, its revealing point of view is like a tower from which an anonymous and apersonal “one” views the dynamic unfolding of the city *and* the artist-subject below, and that “one” is difference itself in a process of self-differentiation.

Once art has taught Marcel the truth of signs, he is able to reinterpret the signs of sensual experience, love and the world and see that all are manifestations of differences, though in varying degrees of materiality and generality. The signs of involuntary memory, such as the madeleine, are close to the signs of art, in that they unfold a world (such as the virtual Combray) and a non-chronological time (the virtual past of the madeleine being a subset of the “complicated” pure form of time of difference). Yet such signs are contingent on circumstances for their emergence, since they are thoroughly enmeshed in the matter in which they appear, unlike the signs of art, which manage to “dematerialize” the medium—the physical paint, sounds, words—in which they are embodied. The signs of love and the world are likewise contingent and embedded in intractable matter, while the worlds they disclose are even less specific than those brought forth in sensual signs. Marcel’s love of Albertine forms a series with his love of his mother, Swann’s love of Odette, and other loves, such that Marcel comes to see all these loves as the general unfolding of a “theme,” an anonymous structure of love that plays through the various heterosexual and homosexual liaisons of the *Recherche*. The signs of the world, finally, disclose social laws, broad regularities of thought and behavior that the sophisticates of the *Recherche* unconsciously reproduce as they themselves are structured and produced by these regularities.

SWIMMING

Proust’s *Recherche* traces the path of a very specific apprenticeship, that of a young man discovering his vocation as a writer. His training proceeds via dinners and receptions, unhappy loves, unsettling recollections, and performances of powerful works of art—hardly the standard curriculum of what is generally thought of as an education. Yet in this aesthetic apprenticeship Deleuze finds the essence of learning, which “is essentially concerned with *signs*” (Deleuze, 2000, p. /4). Signs are enfolded differences that impinge on thought and force thought to unfold those differences. Encounters with such signs are fortuitous yet necessary, chance moments that defy common sense and choose the interpreter rather than themselves being freely chosen as objects of interpretation. In the course of explicating signs, the interpreter necessarily passes through two illusions, that objects possess the truth of signs, and that their truth arises from subjective associations. Once beyond these illusions, the interpreter discovers the virtual domain of differences, which

unfold themselves within the actual through a process of metamorphic self-differentiation, while at the same time remaining immanent within the actual.

In *Difference and Repetition*, Deleuze incorporates many of the points raised in *Proust and Signs* within an extended treatment of what he calls the orthodox “image of thought,” or the unstated preconceptions of thought implicit in traditional philosophy, and what might be called an “imageless,” genuine thought. As in his earlier study of Proust, Deleuze here observes that the standard assumption in philosophy is that thought voluntarily, with a free and good will, pursues truth. Good sense protects thought from nonsense and leads thought in the proper direction (*sens* in French having a possible meaning of “direction”), while common sense provides for a common functioning of the faculties, a *sensus communis* whereby the senses and mental processes are coordinated in their mutual apprehensions (as when, for example, the sight, touch, sound, memory, and analysis of a given experience confirm that they are related to a single and same object of experience). Implicit in this notion of common sense is the model of thought as a form of recognition, recognition being defined through “the harmonious exercise of all the faculties upon a supposed same object” (Deleuze, 1994, p. 133). Recognition in turn grounds the notion of thought as representation, every representation presuming a unified perspective and stable objects governed by the complementary principles of “the Same and the Similar, the Analogous and the Opposed” (ibid., p. 167). Thought’s goal in a world of recognition and representation is to eliminate problems and find solutions, to pass from non-knowledge to knowledge. Learning in such a world is simply the passage from non-knowledge to knowledge, a process with a definite beginning and ending, in which thought, like a dutiful pupil, responds to pre-formulated questions and eventually arrives at pre-existing answers.

What escapes orthodox thought is difference, or the genuinely “new,” which can only be engaged through an “imageless thought.” Rather than arising from a conscious exercise of good will, genuine thought must be forced into action through the disruption of ordinary habits and notions. That which is new is not orthodox but paradoxical, and hence its sense seems nonsense, not good sense. Its paradoxes include those of becoming, the virtual past, and the pure form of time, in which time’s arrow is reversed or destroyed and thought as a result proceeds not in a single, right direction but in all directions at once. Rather than reinforcing the common functioning of the senses and faculties, difference splits them apart and pushes each sense or faculty to its limits, no single and selfsame object confirming the unified operation of a *sensus communis*. The object of an imageless thought defies recognition, for “the new—in other words, difference—calls forth forces in thought which are not the forces of recognition, today or tomorrow, but the powers of a completely other model, from an unrecognized and unrecognizable *terra incognita*” (Deleuze, 1994, p. 136). Such an object is understood not through representation but through explication, for the object is a sign, an internalized difference pointing toward something other than itself. Rather than eliminating problems, the thought of difference is itself a thought of problems, and learning,

rather than occupying the gap between non-knowledge and knowledge, is the process whereby thought explores the domain of problems.

Many of the characteristics of such an imageless thought we have already encountered in our examination of Marcel's experience of the madeleine. Marcel is jolted from his routines by the taste of the madeleine. Its savor paradoxically enfolds a virtual Combray, whose time is an a-directional coexisting past. That virtual Combray is something different within the madeleine, and itself a difference engaged in a process of self-unfolding. The virtual Combray differs from any seen, heard, or touched Combray, for it is a pure object of memory, one that memory alone can grasp and that divides memory from the other faculties as the object is apprehended. The madeleine defies ready recognition and representation, signifying only by pointing beyond itself to something other and without resemblance to itself. But in what regard does the madeleine disclose a domain of problems, and how is learning related to such a domain? This we can determine by looking a little further at Deleuze's discussion of problems in *Difference and Repetition*.

Often philosophers act as if "problems are given ready-made, and that they disappear in the responses or the solution" (ibid., p. 158), which perhaps accounts for dogmatic philosophy's frequent "puerile examples taken out of context and arbitrarily erected into models" and its "infantile" proceedings in which "the master sets a problem, our task is to solve it, and the result is accredited true or false by a powerful authority" (ibid., p. 158). Deleuze contends, however, that problems must be both invented and discovered, and that they produce the conditions under which solutions may be judged true or false. Hence, each problem is "at once both the site of an originary truth and the genesis of a derived truth" (ibid., p. 159). Problems must be evaluated not according to their "resolvability," as often happens in philosophy, but according to their importance, their ability to generate new questions and the solutions related to those questions.

But problems for Deleuze are more than mere Kuhnean paradigms, for they are differential events that "do not exist only in our heads but occur here and there in the production of an actual historical world" (ibid., p. 190). Problems exist in a virtual domain of difference, and each problem may be characterized in terms of its "differential elements and relations along with the singular points which correspond to them" (ibid., p. 209). Deleuze draws this vocabulary of differential relations and singular points from the language of differential calculus. He notes that the basic formula for the derivative of a function, dy / dx , allows one to describe a relation between elements without determining their separate identities or specifying their values. "In relation to x , dx is completely undetermined, as dy is to y , but they are perfectly determinable in relation to one another.... Each term exists absolutely only in its relation to the other" (ibid., p. 172). The elements of a given problem are like the x and y of the formula dy / dx , undetermined elements that become capable of determination (though still without having any specified values) through their differential relation with one another. Hence, each problem delineates "a system of ideal connections—in other words, a system of differential relations between reciprocally determined genetic elements" (ibid., pp. 173-74). Deleuze also observes that in the geometric interpretation of the theory of

differential equations one may characterize different equations in terms of their singular points, the focus of a given parabola, for example, being the singular point of the parabola generated by that equation. What is crucial for Deleuze is that one may determine the *existence* of such singular points and their *distribution* within a field of vectors without specifying their precise values or even what figures they might determine—whether a parabola, a curve, an ellipse, etc.

A problem, then, is not an amorphous muddle, nor a kind of shadowy double of its eventual resolution within a specific solution, but a structured field of potential actualizations, a system of differentially related elements and their corresponding singular points. The system of reciprocally determinable relations of a given problem establishes its fundamental elements, and the singular points demarcate various zones of potential actualization. The problem is virtual—real without being actual—yet it is always engaged in a process of actualization, and it is immanent within its various actualizations. The problem of differential calculus consists of its elements (at the most rudimentary level, x and y as related through the formula for the derivative, dy/dx) and the singular points distributed within a field of vectors. The elements and singular points only have an actual existence in specific equations and solutions, which may be mapped in particular figures (a given parabola or curve, say) with precise values. But the problematic domain of differentially related elements and singular zones of potential actualization remains immanent within actual equations and solutions, each equation being a concrete manifestation of a generative zone of potential differentiation. If one considers the phonemic dimension of language, one may characterize its problem in terms of the broad field of reciprocally determinable phonemic oppositions that belong to all languages, and the particular set of pertinent differences, or singular points, that find actualization in a given language. Each enunciation of a given phoneme is a concrete and specific sonic manifestation of a zone of potential enunciations delimited by a given pertinent difference, such that variations in timbre, pitch, and pronunciation of a given phoneme by different speakers “count” as enunciations of the same phoneme. One may also regard the development of a biological organism as an actualization of a problem, the reciprocally determinable elements being the differential relations common to animals in general, the singular points being zones of potential differentiation that may be actualized in the components of a dog or a cat, and that have actual embodiment in this dog or that cat.²

As should be clear from these examples, problems are not simply mental, subjective entities, at least in the common sense of those terms. They are ideal, in that they are virtual, but they are manifest in human and nonhuman, organic and even inorganic, systems alike.³ Problems are “ideal ‘objectivities’ possessing their own sufficiency and implying acts of constitution and investment in their respective symbolic fields” (ibid., p. 159). Human thought obviously involves human subjects, yet, though problems do not come ready-made, and hence must be created, at the same time they are not mere fabrications of the mind, for they have a real, albeit virtual, existence as “objectivities” that manifest themselves throughout the world. Thus, when Deleuze turns to the subject of learning, he says that “Learning is the appropriate name for the subjective acts carried out when one is

confronted with the objectivity of a problem (Idea), whereas knowledge designates only the generality of concepts or the calm possession of a rule enabling solutions” (ibid., p. 164). Learning and problems belong to the domain of the virtual, whereas knowledge and solutions belong to the separate domain of the actual; and learning is a matter of opening thought to the virtual domain of problems, which has its own autonomous existence, not a matter of solving specific questions and securing a permanent body of knowledge.

At three different points in *Difference and Repetition*, Deleuze offers as an example of learning that of learning to swim.⁴ In the most extended treatment of this example, Deleuze remarks first that “to learn is to enter into the universal of the relations which constitute the Idea, and into their corresponding singularities” (ibid., p. 165). In other words, one must immerse oneself in a problem, with its system of differential relations (“the universal of the relations which constitute the Idea”) and their corresponding singular points. The sea may be considered one such problem. “The idea of the sea, for example, as Leibniz showed, is a system of liaisons or differential relations between particles, and singularities corresponding to the degrees of variation among these relations—the totality of the system being incarnated in the real movement of the waves” (ibid., p. 165, translation modified).⁵ One may say that the problem of the sea in general, its universal problem, is that of differential relations between dynamically interacting water particles, and that the problem’s singular points are the nadir and apex of diverse potential wave functions. Each concrete, physical wave is an actualization of one particular set of singular points, and the whole of the sea is an embodiment of the system of differential relations that constitute the problem of the sea. “To learn to swim,” continues Deleuze, “is to conjugate the distinctive points [*points remarquables*, a synonym for singular points] of our bodies with the singular points of the objective Idea in order to form a problematic field” (ibid., p. 165). Through contact with the sea, then, the singular points which are incarnate in the swimmer’s body are conjoined with the singular points embodied in the sea, and the complex of singular points belonging to swimmer and sea together form a virtual, problematic field. The swimmer, of course, possesses an actual body, the sea has an actual material existence, and the swimmer learns to interact with actual waves. But it is this conjugation of singular points that “determines for us a threshold of consciousness at which our real acts are adjusted to our perceptions of the real relations, thereby providing a solution to the problem” (ibid., p. 165).

Consciousness, however, does not afford us direct access to problems and their singular points. Consciousness operates via good will, good sense and common sense, all of which distort difference and reinforce an interpretation of the world in terms of ready-made questions and preexisting solutions. Only through an involuntary confrontation with something other does thought engage difference, and that which provokes the thought of difference is a sign (as we saw earlier in our examination of Proust). Hence, “problems and their symbolic fields stand in a relationship with signs,” for signs are those entities “which ‘cause problems’ and are developed in a symbolic field” (ibid., p. 164). If to learn is to conjugate singular points “in order to form a problematic field” (ibid., p. 165), then we may say as well that “to learn is

indeed to constitute this space of an encounter with signs” (DR 35/23). In the case of swimming, the encounter with signs leads to the discovery of singular points in both the swimmer and the sea. The singular points immanent within the swimmer’s body become manifest through the body’s disorienting, subliminal micro-perceptions of an alien element. Through that body’s attempts to adjust its motions with those of the sea, thought unfolds the singular points that are enfolded in the sign-particles of the sea, and as the body and the sea together form an interactive system of motions, a problematic field emerges, one of differential relations and singular points that extend across swimmer and sea. Thus, though learning to swim entails a passage to “a threshold of consciousness at which our real acts are adjusted to our perceptions of the real relations [of the sea]” (ibid., p. 165), problems are “the ultimate elements of nature [those of the sea, in the swimming example] and the subliminal objects of little perceptions [i.e., micro-perceptions below the threshold of consciousness]. As a result, ‘learning’ always takes place in and through the unconscious, thereby establishing the bond of a profound complicity between nature and mind” (ibid., p. 165).

To learn, then, is to immerse oneself within an alien element and thereby open oneself to an encounter with signs. (Think here of Marcel’s taste of the madeleine as analogous to the neophyte swimmer’s initial dive into the sea.) Signs “cause problems” through their disorienting shock, forcing thought to deal with experiences that disrupt the common, coordinated functioning of the senses and faculties (Marcel’s strange gustatory sensations resembling the swimmer’s initial unorganized tactile micro-perceptions). Through this encounter with signs, thought discovers a problematic field of differential relations and singular points that exists both within and without (the reminiscence field of Marcel-madeleine-virtual Combray being like the fluid sensori-motor field of swimmer-sea). Though it is within the actual that thought participates in the dynamic unfolding of the differential relations and singular points of the virtual domain of problems, that virtual domain remains apersonal and pre-individual, an ideal structure of potential zones of individuation that establishes “the bond of a profound complicity between nature and mind” (ibid., p. 165).

SEEING

In *Proust and Signs* Deleuze notes that Marcel learns little from his teachers—indeed, in the encounter with the madeleine, he has no teacher other than the madeleine itself. In *Difference and Repetition*, Deleuze assigns the swimming teacher a rather limited role, for “the movements of the swimming instructor which we reproduce on the sand bear no relation to the movements of the wave, which we learn to deal with only by grasping the former in practice as signs” (Deleuze, 1994, p. 23). It would seem that for Deleuze the best that teachers can do is to invite their students to participate along with them in an activity rather than show them what to do or how to do it. “We learn nothing from those who say: ‘Do as I do,’” says Deleuze. “Our only teachers are those who tell us to ‘do with me’, and are able to emit signs to be developed in heterogeneity rather than propose gestures for us to

reproduce” (ibid., p. 123). There is finally a basic mystery to learning, in that “We never know in advance how someone will learn: by means of what loves someone becomes good at Latin, what encounters make them a philosopher, or in what dictionaries they learn to think” (ibid., p. 165). Still, although we cannot know in advance what paths learning will take, nor can we induce genuine learning through precept and example, there is perhaps a function for the teacher in this form of education, one that Deleuze hints at when he says that our only teachers are those who “are able to emit signs” (ibid., p. 23). Deleuze does not develop this insight any further in *Difference and Repetition*, but we might be able to discern the outlines of a pedagogy of sign emission by looking briefly at his treatment of modern film in *Cinema 2: The Time-Image*, and specifically at the practice of one of Deleuze’s favorite directors, Jean-Luc Godard.

Deleuze divides the history of film into two basic phases, the classic cinema and modern cinema. Classic cinema is dominated by an organization of space and time according to a rational, commonsense, Newtonian/Cartesian “sensory-motor schema” (Deleuze, 1989, p. 26). Modern cinema, by contrast, is marked by the breakdown of the sensory-motor schema and the creation of images that no longer conform to a single unified spatio-temporal structure. In the classic cinema, images are linked through their ordinary, “natural” connections with one another, “according to laws of association, of continuity, resemblance, contrast or opposition” (ibid., p. 276), whereas in the modern cinema images are juxtaposed in such a way that the gap *between* images becomes primary, “the interval is set free, the interstice becomes irreducible and stands on its own” (ibid., p. 277). Modern directors, however, do not simply disconnect images from their orthodox, commonsense chains of association; they also re-link images, yet in such a way that a productive difference emerges between images. Godard is for Deleuze an exemplary director in this regard. “For in Godard’s method, it is not a question of association. Given one image, another image has to be chosen which will induce an interstice *between* the two. This is not an operation of association, but of differentiation, as mathematicians say, or of disparation, as physicists say: given one potential, another one has to be chosen, not any whatever, but in such a way that a difference of potential is established between the two, which will be productive of a third or of something new” (ibid., p. 179-80, translation modified).

The modern cinematic re-linking of images, then, is not arbitrary, but guided by a principle of maximum interaction, whereby the interstice between images is emphasized while at the same time the juxtaposed images are themselves altered and something new emerges in each “image-interstice-image” unit as a whole. For audiences, such differentially related “image-interstice-image” sequences pose problems, since the sequences are not readily assimilable within standard interpretive schemas. Modern cinematic images must be “read,” in the sense that they must be construed through an active interrogation of the forces connecting the images. For each sequence, the audience must ask, What specific difference motivates this connection? What new movement is created through this juxtaposition? How does this sequence interact with other sequences? How do the sequences form part of an assemblage of multiple “image-interstice-image” units that maintain a certain

consistency, a specific cohesiveness of multiple parts in dynamic interaction? Such a “reading” of images is complicated by the fact that modern directors emphasize not only the gaps between images, but also the gaps of silence between sounds, the gaps separating sound effects, music, and dialogue from each other, as well as the gap between the visual and audio elements of film (such that there is in modern films a constant back-and-forth of the visual and the sonic in dynamic disequilibrium rather than a mutual doubling or reinforcement of sight and sound). As a result, “a whole pedagogy is required here, because we have to read the visual image as well as hear the speech-act in a new way” (ibid., p. 247) and interrelate sight and sound through their differential relations with one another.

Deleuze observes that over the course of his career, Godard develops “his own pedagogy, his own didacticism” (ibid., p. 248), one that combines a method of differentially juxtaposing images and sounds and a self-conscious reflection on that method within the film itself: “Godard’s strength is not just in using this mode of construction in all his work (constructivism) but in making it a method which cinema must ponder at the same time as it uses it” (ibid., p. 179). The film that “marks a first peak in this reflection” (ibid., p. 179) for Deleuze is *Here and Elsewhere* (*Ici et ailleurs*), a collaborative effort directed by Godard, Anne-Marie Miéville and Jean-Pierre Gorin that began in 1970 as a documentary about the Palestinian struggle and ended in 1974 as a meditation on images, sounds and what the film’s narrator calls the “uninterrupted chains of images enslaving one another,” a chain that assigns us our place “in the chain of events in which we have lost all power.”

Here and Elsewhere is a film about “and,” about the links that combine images and sounds in associative chains. (The French word “*chaîne*,” besides denoting various kinds of physical and mental links, has associations as well with consumer and media culture—*travail à la chaîne*: assembly-line work; *chaîne*: [TV] channel.) The film moves back and forth between images of the Palestinian camps and a French family watching TV, with interspersed sections presenting a complex of sights and sounds in various formats—blanks screens, screens with nothing but words (key words flashing), montages of stills (documents of the workers’ movement, photos of Nixon, Breshnev, Hitler, Golda Meir, the Holocaust, advertisements, etc.), shots of one, four or nine television screen broadcasts, an extended shot of three slides side by side with a disembodied hand replacing one slide after another, comic didactic sequences demonstrating the nature of filmmaking, and so on. The film’s sequences in some ways confirm well-worn chains of association, many of which are dominated by the binary oppositions recited by the narrator (victory and defeat, foreign and national, order and disorder, black and white, here and elsewhere). But the narrator’s insistent enunciation of “and,” the repeated flashing of “and” and “+” in the intertitle messages, and the several prolonged shots of two wood blocks forming the word “et” (“and”) that fill the screen, all call into question such links while raising the possibility of other connections, other uses of “and,” connections of one thing after another in an additive, non-totalizing fashion, *x and p, and b, and y* The juxtaposition of Palestinian fighters and the French family watching TV invites a propagandistic reading of this relation as one of an authentic,

active, and natural culture versus a media-saturated, passive, consumerist culture, just as the alternating stills of Hitler and Golda Meir suggest a facile equation of the two figures. But as the narrator states, it is “too simple and too easy to simply divide the world in two,” “too easy or too simple to say simply that the wealthy are wrong and the poor are right,” for “there are no simple images, only simple people, who will be forced to stay quiet, like an image.”

Midway through the film, the narrator offers an analysis of the “enchaining” of images whereby one image displaces another in a constant flow, and consumers of the images are invited to find their place in the flow. He also remarks on sounds—how one sound dominates another, and how sounds gain power by being represented by images. The film’s critique of images, however, is not restricted to mass media images, for in the film’s final section, a female narrator subjects the directors’ own Palestinian footage to a critical interrogation. As a close-up sequence of a Palestinian woman occupies the screen, the female narrator points out that the woman is a young, beautiful actress chosen by the directors to play a pregnant woman, though she is not pregnant herself. Footage of another woman haltingly reciting lines fed to her by an off-screen prompter is accompanied by the narrator’s remarks on the woman’s initial enthusiasm at participating in the Palestinian cause and her evident boredom and unease as the recitation continues and she seemingly longs for a humbler, less elitist role in the struggle. As we watch a young girl loudly declaim a patriotic poem, the narrator comments that the girl may be innocent but her theatrical manner is not, for it echoes the poses of a revolutionary theater whose images are tired and clichéd.

Besides providing a direct verbal critique of images, though, the film also offers an implicit rethinking of images through their isolation, their disconnection from conventional chains, and their reconnection in unorthodox series. The sequences of the “pregnant” actress, the stuttering reciter, and the histrionic young girl cease to function within some revolutionary saga. Isolated from narrative chains of association, the sequences function as singular points, loci of potential development that are not pre-judged and pre-viewed. The stills and documentary footage of Palestinian corpses, workers’ demonstrations, and Holocaust victims interjected in unexpected patterns throughout the film finally block ready assimilation within an ideological framework, but instead force a rethinking of the meaningful differences that pertain to the violence that extends from the Russian revolution to the present. By the close of the film, the juxtaposition of a circle of soldiers in quiet conversation and the French family watching TV has lost its clear ideological bearings. The insistent long takes of the two groups provide no new pre-digested information about the images, the undercoded shots asking the audience to make its own connections between the images. The male narrator finally comments that the filmmakers were unable truly to see and hear the Palestinians when they shot their footage because they sought elsewhere the revolutionary solution to problems they could not see and hear at home. The challenge, he concludes, is “to learn to see in order to hear elsewhere. To learn to hear oneself speaking, in order to see what the others are doing. The others, the elsewhere [*ailleurs*] of our here [*ici*].”

LEARNING TO THINK

Learning for Deleuze is a subset of what we usually mean by learning, just as thought for him is a subset of what generally passes for thinking. What Deleuze deems genuine learning and genuine thought belong to the domain of signs, problems and the virtual, a domain that is, in Proust's words, "real without being actual, ideal without being abstract." To learn is to encounter signs, to undergo the disorienting jolt of something new, different, truly other, and then to explicate those signs, to unfold the differences they enfold. As one does so, one passes through objective and subjective interpretative illusions until one grasps difference itself in its immanent differentiation within the actual. Then one sees the world as an a-centered city-egg engaged in metamorphic becoming in all directions at once, but one sees as well the virtual domain of difference in itself, which is not an amorphous chaos, but an infinite collection of structured problems. Each problem consists of a general set of differentially related elements and their corresponding singular points, or zones of potential actualization. Genuine learning involves an engagement with such problems, a re-orientation of thought following its initial disorientation, such that thought may comprehend something new in its newness, as a structured field of potential metamorphic forces rather than a pre-formed body of knowledge to be mastered. One cannot teach the truly new in its newness, but one can attempt to induce an encounter with the new by emitting signs, by creating problematic objects, experiences or concepts. Hence, the pedagogy of signs entails first a critique of codes and conventions, an undoing of orthodox connections, and then a reconnection of elements such that the gaps between them generate problems, fields of differential relations and singular points. Such teaching, however, is itself a form of learning, for it proceeds via an encounter with signs and an engagement with problems. To teach is to learn, finally, since for Deleuze genuine teaching and learning are simply names for genuine thought. The goal of teaching and learning is to think otherwise, to engage the force of that which is other, different and new. What Deleuze details in his accounts of learning and teaching is that dimension of education that inspires all true students and teachers—the dimension of discovery and creation within the ever-unfolding domain of the new. It is also the dimension of freedom, in which thought escapes its preconceptions and explores new possibilities for life.

NOTES

- ¹ For a detailed discussion of Bergson's virtual past, see chapter three of Deleuze's *Bergsonism*, (B 45-70/51-72).
- ² In some regards, Deleuze's concept of the problem may be related to that of "structure" in some forms of structuralism. In "How Do We Recognize Structuralism?," Deleuze characterizes structures in terms of differential relations and singular points, and he argues that the structural analyses of Lévi-Strauss, Althusser, Lacan, Foucault and others may be understood in terms of this model (Deleuze, 1998). One should be cautious in assimilating Deleuze to this tradition, however, for he departs from most structuralists in his emphasis on the virtual, the positive nature of difference, and the generative force of self-differentiating difference within structures.

- ³ It should be evident that Deleuze uses the term “Idea” in an unconventional way, drawing his concept of ideas from what he identifies as Kant’s “profound theory of Ideas as problematizing and problematic” (1994, p. 161). Ideas for Deleuze are in no sense transcendent, essential or eternal entities, but instead virtual problems immanent within the real.
- ⁴ Although Deleuze nowhere says as much, it seems likely that he draws the example of swimming from Bergson, who in *Creative Evolution* describes the effort to think something new in terms of learning to swim (Bergson, 1911, pp. 192-94).
- ⁵ Deleuze’s identification of the sea as a Leibnizian problem hinges on a rather unconventional reading of Leibniz’s remarks about the sound of the ocean (as, for example, in Leibniz’s Preface to *New Essays on Human Understanding* [1996, pp. 54-55]). Deleuze develops this reading of Leibniz in *Difference and Repetition*, (1994, pp. 213-14).

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Ronald Bogue
The University of Georgia
USA

DAVID R. COLE

2. DELEUZE AND THE NARRATIVE FORMS OF EDUCATIONAL OTHERNESS

INTRODUCTION

I pull my copy of *Metrophage*¹ out of its battered pink paper folder. It is suitably badly printed, and the black and white stripes of the dysfunctional roller have left interference patterns running from the right to the left that distract the eye and make discernment of the faint courier words difficult and time consuming. I randomly separate the pages and start reading:

He stood and Nimble Virtue tossed a packet of Mad Love at his feet. It came to rest by the toe of his boot, where the water was icing up over a flaking patch of dried blood. Welding marks, like narrow scars of slag. The slaughterhouse had been grafted together from a stack of old Sea Train cargo containers. A cryogenic pump hummed at the far end of the place, like a beating heart, pushing liquid oxygen through the network of pipes that criss-crossed the walls and floor. From the ceiling, dull steel hooks held shapeless slabs of discoloured meat. Jonny looked at the slunk merchant.

Kadrey (1995, part 3, p. 1).

When we read this passage, what is the tenor of the voice that we might deploy through the use of the third person narrative? In the examination of educational narrative forms, whether through qualitative research or self-evaluation exercises, one might discern many voices that could crowd one's analytical frame. The problem for education is straightforward, and has been neatly summarised by Inna Semetsky (2004) when she said, "[A] new non-representational language of expression, exemplified in what Deleuze (1994b) called a performative or modulating aspect, is being created by means of the language structure going through the process of its own becoming-other and undergoing a series of transformations giving birth to a new, as though foreign and unfamiliar, other language," (p. 316). This is happening as I speak or as you read these words through the immense structures and processes of the education systems of the industrialised West. *Metrophage* was born of these structures and now sits innocently in my office or on the internet or in the computer files of high school students studying for examinations to go to respectable colleges. The problem can be broken down into two parts that I shall explore throughout this chapter:

- What are the languages of otherness that can be produced through the action of educational processing?

- How can we use this otherness to set off new directions of educational practice and how does the philosophy of Gilles Deleuze relate to these practices?

LEGITIMISATION

The first language of otherness that is perhaps the most readily discernible in the structures of education and the most widespread - is that which subverts legitimacy. When we speak about education, we load the language that we use with knowledge statements, power concerns and rules with claims to universality. This practice is derived from the values and normative conditioning of science. Jean-François Lyotard (1984) in *The Post-modern Condition* designated the grand or overriding narrative of knowledge as being that of legitimisation. This is scientific knowledge - the legitimacy of which Lyotard (1984) indissociably linked to the legitimisation of the legislator since the time of Plato (p. 8). Thus the language called science has been strictly inter-linked with those called ethics and politics. Importantly, they both stem from the same perspective, that of the Occident, which uses various strategies to dominate other perspectives and their multiplicity of minor narratives. The development of an integrated state system has incorporated the language of scientific knowledge as one of its legitimising principles, and codes the practices of science as being its own. The state uses the procedures of science: e.g., falsification and verification, in order to maintain its authority and presence in the various language games that are played out in order to control and manipulate society. Lyotard (1984) has advised that the public have free access to the memory and data banks of the state, so that the language games may be played out with as much information as possible, though they would be, as he terms it, “non-zero-sum games,” (p. 67). Michel Peters (1996) has admirably dealt with many of the political and social concerns that result from Lyotard’s analysis, and has incorporated Foucault’s normative historical processes into his understanding of the present educational situation. Peters (1996) indicates the ironic state of affairs that we find ourselves in, where the politicians of the liberal states continue with their grand narratives, yet social and pragmatic realities make the legitimacy of their statements almost universally untenable (pp. 79-91). For those of us caught in the middle, working inside the educational machine of Western democracies; it is as if the commands coming from the centre are being continually scrambled and dislocated by their journey into the particular localities where they are enacted. It is as if civil society (Habermas, 1999) is being continually turned upside down from its rhetorical description in government to its pragmatic maintenance through educational institutes.

What are the languages of otherness that question the legitimacy of the state and civil society and how do they relate to the philosophy of Gilles Deleuze?

- Criminal
- Revolutionary
- Punk
- Anarchist
- Fast capitalist
- Terrorist

I could probably carry on adding elements to this list, as the subversion of legitimisation of the state, civil society and scientific language is a widespread language game. These minor narratives appear as interwoven into classrooms in one form or another through the discourses of the children and the teachers and the media where they circulate freely. They relate to Deleuzian philosophy with respect to his formulation of minor literature (Deleuze & Guattari, 1986). In this work Deleuze & Guattari (1986) examined the role of Yiddish with respect to Czech and German through the writing of Franz Kafka. They found that it is a language where, “minor utilizations will carry you away,” (p. 25). Something similar has been happening in the education systems of the West through the relationships that have developed with respect to legitimisation. However, there is another dimension to the production of minor educational narratives of otherness that challenge the legitimacy of the state, civil society and scientific language. This is semiology, and to get closer to Deleuze’s position in this field of inquiry; it is worth briefly comparing his linguistic ideas with those of Wittgenstein.

LANGUAGE-GAMES

To understand how the languages of otherness that challenge legitimisation work according to Deleuze; it is useful to note that his account of language production and control parallels that of Wittgenstein in several ways. Firstly, a basic proposal that follows from the rejection of mentalist accounts of language and thought as adequate justifications in Wittgenstein; is that the meanings of words cannot be taken away from their use, a move Deleuze (1990) made in *The Logic of Sense* (p. 146). The idea that there is something that is the meaning of a particular word, that can be accessed in isolation from any direct use in a specific context, is thoroughly dismantled in the *Philosophical Investigations*: “only someone who already knows how to do something with it,” writes Wittgenstein (1998), “can significantly ask a name,” (section 31) and later, ‘[W]hen one says, “He gave a name to his sensation” one forgets that a great deal of stage setting in the language is presupposed if the mere act of naming is to make sense,’ (section 257).

This stage setting and foreground work has been translated into the legitimizing principles of education and is immanent in the sense that teachers and educators play the language-games of legitimisation through their lesson design and implementation. It could be stated that educators are trained, disciplined and domesticated through the educational machine to such a point that they tend not to be particularly aware of the *abominable faculty* that has been instilled in them, “consisting in emitting, receiving and transmitting order-words,” (Deleuze & Guattari, 1988, p. 76). This process of semiotics occurs through the inculcation of the rules of linguistic expression on the one hand; which has as much to do with gesture, body language and the significance of posture as it has to do with syntax, lexicon and the lessons of grammar. And on the other hand, semiotics works according to the networks of social practices - such as the way the day is divided up into work time and break time, or the differing and suitable modes of communication between colleagues, management and trainees that one may observe in

educational establishments. The western education system has produced social praxis that is divided and streamed into appropriate behaviours for each situation in the working day. Deleuze & Guattari (1988) call these two sides of the social machine:

- The machinic assemblage of bodies which is training and discipline.
- The collective assemblage of enunciation or the statements of order-words in circulation at a given point.

The difficulty of differentiating these educational strata replicates the problem in Wittgenstein of distinguishing between his corresponding terms for the machinic and collective assemblages: forms of life and language-games. We may read the two sides as mutually related, yet without directly representing one another, a relationship that Deleuze & Guattari (1988) describe as *reciprocal presupposition*. This means that neither side can be adequately understood except in relation to the other; neither is primary or foundational, they both appear at once - in the double articulation of the strata. In other words, the language-games of the education system do not represent corresponding forms of life – philosophy or educational theory as exemplary practices cannot create some special language that gets more deeply into the heart of things, nor can it use “some sort of preparatory, provisional one [...it can only] use language full-blown [...] this by itself shows that I can adduce only exterior facts about language,” (Wittgenstein, 1998, section 120). Why is this the case? It is because language has no interior. As Deleuze and Guattari (1988) have said, “If language always seems to presuppose itself, if we cannot assign it a non-linguistic point of departure, it is because language does not operate between something seen (or felt) and something said, but always goes from saying to saying” (p. 76). Thus the languages of otherness that spring from the immense source of western legitimisation and that are enacted through the organisation of education (language-games or order-words that reciprocally presuppose the forms of life or assemblages); pass on their codes from word to word. In addition, these methods of semiotic dissemination are strengthened through the electronic methods of communication that are now available such as the internet and SMS messaging.

The analysis of Deleuze and Guattari (1988) gives us a battery of material relations, and an open-ended series of concepts that can be applied or ignored as the investigation dictates; as we explore ever further into the narrative forms of educational otherness. The pivotal notion for them is *double articulation*, the separation of material flows of bodies, events and signs into two reciprocally-presupposing levels. Do Wittgenstein’s terms *language-game* and *form of life* designate the double articulations of the social machine, which Deleuze and Guattari (1988) call respectively the collective and machinic assemblages? On either side, two opposing tendencies can be observed, one towards stability and regularity, and the other towards creation and change. In Wittgenstein’s terms, the former would be speech-actions in accordance with grammar - or on the larger scale, unproblematic and smooth social functioning in the educational machine - while the latter is seen in his various examples of the inability to apply grammar rules correctly, and of attempts to misuse language in this context that would seem to encapsulate narrative forms of otherness. Wittgenstein presented the possibilities

of language malfunction as peculiarly illogical practices; that have greater significance than just getting words wrong. However, by emphasising this ever-present possibility; he has taken the focus away from separate, exclusively linguistic problems. Furthermore, Wittgenstein has fused errors in with the complex and interwoven threads of language, thought and social behaviour that are inseparable, and indeed produced by the education machine; as it works to make disciplined and domesticated subjects that might be controlled through language in terms of getting the orders right. Perhaps this is just the common state of humanity, as Wittgenstein (1998) suggests when he writes:

Suppose you came as an explorer into an unknown country with a language quite strange to you. In what circumstances would you say that the people there gave orders, understood them, obeyed them, and rebelled against them and so on? The common behaviour of mankind is the system of reference by means of which we interpret an unknown language (section 206).

Whilst taking the analysis further by squarely looking at the problem of otherness in terms of control - or the order-words and machinic assemblages that educators employ; Deleuze and Guattari (1988) do agree on the social nature of language and the resultant language-games. Wittgenstein leaves us hanging in terms of the relationship between language and the modes of existence that might help us to escape from these interminable games. It is for him an uncanny fact of language production that the use-value we ascribe to it is invariably tied up with the control and regulation of behaviour. I want to say that there is a way out of this conundrum, and it is through the philosophy of Gilles Deleuze, particularly when he has written in conjunction with Félix Guattari (1984, 1988). This escape route is located deep inside the heart of creating language. There the otherness that spreads immanently through the education system as educators enforce the principles of legitimisation through language-games is not apparent. It is a place wholly encapsulated by desire.

THE LANGUAGE OF DESIRE

This place of desire has been a site for serious intellectual and educational investigation. It has involved research into the hybrid, asignifying, non-linear narrative forms of otherness that are currently developing around the globe – and owes much to the interventions of feminist, cybernetic and experimental social scientists and their “common notions” (Parisi, 2004, p. 200). Their efforts have not developed immutable equations or formulas to structure research into the nature of desire; but they have extracted themes of a qualitative and local nature. These themes may have been hidden due to previous explorations that adhered to the disciplinarian codifications of power and not conforming to the perturbations of desire. This quote from Sandra Harding explains what to look for in our application of Deleuzian philosophy to education:

Once we stop thinking of modern Western epistemologies as a set of philosophical givens, we can begin to examine them instead as historical

justificatory strategies; as culturally specific modes of constructing and exploiting cultural meanings in support of new kinds of knowledge claims (Harding, 1986, p. 141).

Deleuze sets up 'the other' as the focus of inquiry, Harding specifies the discourses to be analysed. One aspect this research into the narratives of otherness and desire has been characterised as *cyber-feminism*. It is the opportunity for the expression and elaboration of difference in opposition to any tyranny of the status quo, or the world-view of institutionalised structures of patriarchal control (Shields, 1996, p. 9). Studies such as those of Anne Balsamo (1996) or Veronica Hollinger and Joan Gordon (2002) have placed the cyborg figure of Donna Haraway (1991) at the leading edge of an interruption in male dominated knowledge and narrative. It could be said that to render the technological figure as feminine (but not a subject), is a tactical manoeuvre designed to impinge upon our perceptions and understanding of the processes that are being analysed in education and through creating otherness. In the case of investigating a language of desire, the questions applicable to contemporary narrative forms shift from those that feed into a categorical mechanism concerned with formulating a 3-dimensional structure that effectively co-ordinates the integration of language in society; to a flat perspective, where the paradigms of communication and data-inter-relatedness change from peripheral objects of the curriculum to central figures filled with desire (Parisi, 2004, p. 195). This feminist perspective strategically stays on the edge of educational discourse, where the difference opened up by the desire to be involved with narrative experimentation, may not be forced back into previously coded and recognised forms, but has a nomadic position (Deleuze & Guattari, 1988, p. 431).

This insight into creating a language of desire concurs with Sue Golding's (1997) collection of writings that have presented *eight technologies of otherness*. In this work she defined otherness as, "simply and only a cosmetic wound; a very thin, virtual, and in this sense 'impossible' limit," (p. 7). It could be stated that Golding's collection of essays sets out to rethink the notion of otherness. It is generally assumed that the other, or otherness, is something that does not fit in technically speaking. But then this supposition may lead to a slide, and that change in position turns into a human object, so otherness becomes, for example, woman, the black or Jew, or in our case the misbehaving child. This other is therefore the group that doesn't fit in with what was being framed in the first place; in education the normative concerns are the narrative forms of conformity, regulation and control that exclude otherness. In *the eight technologies of otherness*, otherness is strategically placed as a surface, and that surface is both the expression of the subject and that what is not part of the object. For example, to say that 'the thing' has pain in it is only accurate in as much as the object you are dealing with has pain in it, and the part that is otherness, the other entity is only comprehensible in as much as it is related to, in this case, a body. Otherness thus has this peculiar property to it, which is that it both frames something and simultaneously has no life on its own. Up until very recently most social scientists were dealing with otherness in the same way that physical scientists would look at atoms; and therefore they did

not take into account the relational quality of otherness. It could be said that we require something different for contemporary society where information carries the load of relational forms and is characterised by fluidity and changes in nature. The technologies of otherness of which pain is one, though it is named by Sue Golding in her book as cruelty (Figure 1); fit in to the being or the entity, and could also be perceived as at the same time passing through 'the thing'. The technologies of otherness are part of the excess of the object, and yet they make up the thing itself. In so doing these technologies may produce a language of desire, or a non-representational language to use for the narrative forms of educational otherness.

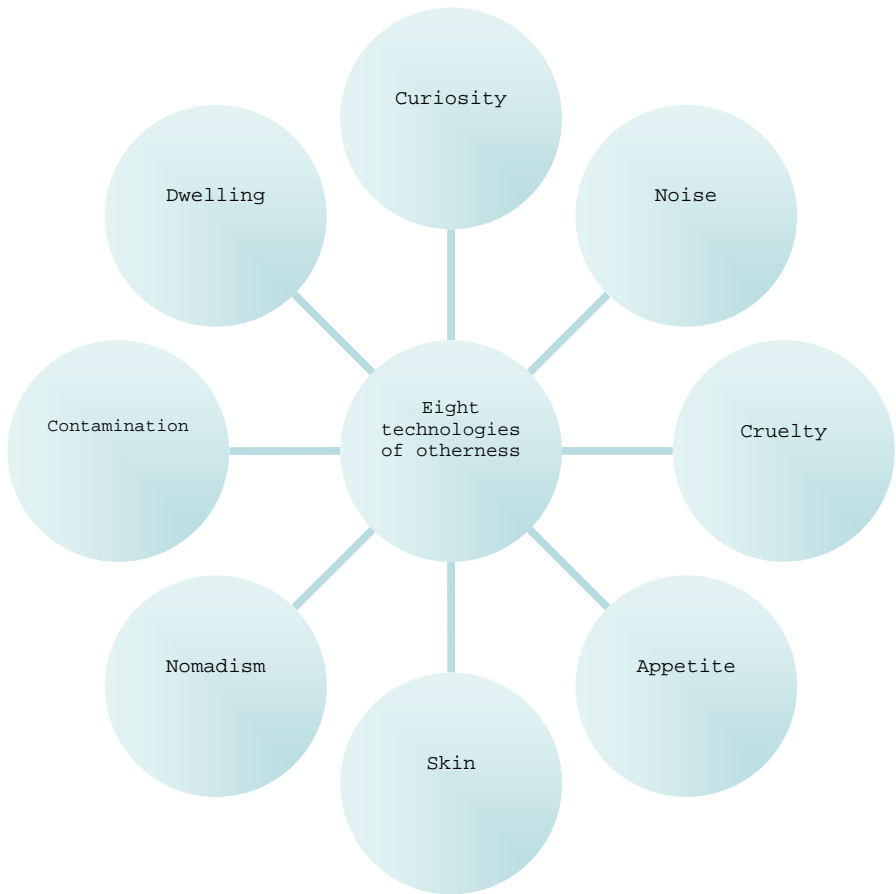


Figure 1. Sue Golding's (1997) eight technologies of otherness

This schema could be used as a way of understanding desire in language in terms of capturing non-representational otherness. It is worthwhile to point out that in 1977 Deleuze wrote a personal set of notes for Michel Foucault. In them he said, "...desire does not comprise any lack; neither it is a natural given; it is an assemblage of heterogeneous elements which function; it is process, in contrast with structure or genesis; it is affect, as opposed to feeling; it is haecceity (individuality of a day, a season, a life), as opposed to subjectivity; it is event, as opposed to thing or person. And above all it implies the constitution of a field of immanence or a 'body without organs', which is only defined by zones of intensity, thresholds, gradients, flux," (p. 11). One might see how a language of desire would be constituted through these statements about desire. In particular, the body without organs is a powerful figure to reconceptualise education working around sexualities, desire and the construction of the self. We might ask ourselves: do our educational practices enable this language? It is a paradox of otherness that it is defined by movement, yet there is also something 'in it' such as has been captured by the categories of the eight technologies of Sue Golding or the body without organs. To explore this element of educational narrative otherness further, we must examine Deleuze and Guattari's notion of nomadism and how it relates to language and education. Nomadism cannot be constituted through otherness or as a relative force against the sedentary power that is immanent in the state and civil society control of education in the West. Nomadism should be understood 'in-itself' to the extent that it may be used as a critical tool to enable a language of desire that may express otherness.

NOMADISM

To understand what Deleuze and Guattari (1988) mean by nomadism; we first need to state that the narrative styles, sources of information and types of knowledge claims change when we question the power structures that have been upheld and are indeed upholding the educational and administration systems of the West. For example, the writer and experimental artist Manuel de Landa, has posited the notion of *pandemonium* (cf. Selfridge, 1958) defined in terms of messages not being sent to specific locations, but when they are broadcast to concurrent independent objects. Therefore, control of the system is relinquished from a uni-directional (A-B) approach where A controls B and now spreads smoothly in the space of simultaneous message-recipient relationships. An example of *pandemonium* was the operation of numerous Jacquard looms during the Industrial Revolution (Landa, 1991, p. 164). As such, *pandemonium* is not exhausted by definition as a humanist-historical concept, or as a scientific-realist perception; it may be more appropriately defined as an [inhuman-chaotic-immanent procedure] - it is a counter strategy to the rendition of the loss of power by humans due to machines or the direct transfer of system control to simultaneous digital environments in the contemporary workplace (Murphie, 2005, p. 19).

Pandemonium has been happening through education in highly industrialised countries via the introduction of technology into the learning process (New London

Group, 1996). Technologies such as SMS or the internet are fast and beguiling forms of communication that enable learners to talk to each other immediately. Nomadism in this context is the fluidity and movement that is produced by this technology. It also simultaneously creates the conditions of otherness in that subjects and words of command and power may be emptied of meaning in an electronic and mediated state. The analysis of Deleuze & Guattari (1988, pp. 351-424) have named this tendency as the war machine; and they track it through history where technology has promoted new social forms such as armies and more recently the simulation of war games in virtual reality. The nomadism of contemporary society concerns the knowledge of control mechanisms, tracking immanent, nano and macro-tendencies, and should not attempt to undo societal and educational ruptures in favour of the rhetoric of government or the 'civilised' West. It could also be stated that pandemonium is a useful rubric for educational narrative research on otherness and a coherent formulation of Deleuze & Guattari's nomadism.

In contrast to Deleuze and Guattari's (1988) narrative perspective of the nomad that might be enacted through pandemonium; technological society was theorised by Jacques Ellul (1964) from a static historical-humanist perspective, through which he examined the political consequences of a society of technicians. As a precursor to Deleuze-Guattarian thought, this approach opens up the ways in which they have radicalised educational narrative forms by introducing nomadism into authorial legitimisation and the resultant language of desire. Contrariwise, Ellul tracked the development and placement of technique from a fixed position – and found it to be constituted by regimes of technical knowledge with useful applications that have been organised by social groups concerned with power. Technique was designated as being mobile, following the divisions of *Zweckwissenschaft* - the practical sciences - in order to lay waste to various moral and political regimes such as organised religion, usually to the benefit of a state system (Ellul, 1964, p. 317). In a similar way to Jünger (1949a), the question of whether technical disciplines are able to centralise in autonomous economic and political systems, does not preclude lateral communication between technical epicentres, as *techno-Zeitgnosse* – or technologised contemporaneity (p. 121). This contemporaneity fuses technical expertise with the ability to communicate the particular knowledge as an integral part of the activity. In this way, the medium for mediation is singularised (Jünger, 1949b); and it could be said that this is happening at a breakneck pace in the current globally inter-linked information world, where the narrative forms of education are evolving into new and mutated formats due to factors such as the internet and SMS messaging. The nomadic war machine (Deleuze and Guattari, 1988, p. 420) of *A Thousand Plateaus* is a schema whereby this mutation may be tracked, and integrated with a radicalised cyber-feminist analysis (cf. Parisi, 2004, p. 200). As such it is an important formulation that helps us to understand how the sedentary power of the institutions of the West is being undermined by the augmented regimes of movement that they are ironically producing. Yet to comprehend the breadth of this conjunction fully; we must

understand how Deleuze constructed the nomadic war machine as a singular idea for technological movement through his engagement with philosophy.

SINGULAR OTHERNESS

The intellectual construction of the notion of the nomadic war machine starts with Deleuze's (1994a) reading of western philosophy in *Difference and Repetition*. According to Deleuze, the *diaphora* of Aristotle is a false transport. Deleuze argues that *diaphora* never shows difference changing in nature; we never discover a differentiator of difference, which would relate in respective immediacy, the most universal and the most singular. This is vital when describing the mechanisms of technological transformation. The differentiator for Deleuze differentiates difference in-itself, and is a component in his ontological exploration of generalised anti-Hegelianism and the Heideggerian philosophy of ontological Difference. Deleuze reverses the ontological methodology of positing *substance* or *being* as the grounds for asking the questions, "How does matter change?" (Aristotle), or "How can being gain determinacy?" (Hegel), or "How can being sustain its difference?" (Heidegger); instead, Deleuze asks the question, "How can difference sustain its being?" Michael Hardt (1993) has located the source of Deleuzian ontology in Bergson, where internal difference has been elevated to the level of the absolute (p. 7); in contrast to Mechanism or Platonism, where difference is thought of contingently (*per accidens*). In attempting to think internal difference, Deleuze wishes to ground being in difference, whereupon the internal difference is not conceived as simple determination; but achieves 'substantial differences' (*per se*).

Deleuze pursues the philosophical point about difference to set up a new perspective on singularities. This relates to the construction of the war machine and otherness in education in that the technological regimes of intensity where nomadism is enacted is not a particular occasion of innovation or social instance of augmented peculiarity. It is characterised more definitely through the use of singularities. Singularity for Deleuze is beyond particular propositions no less that universality is beyond general propositions. Here the echoes of Deleuze's project resonate with those of Whitehead. Whitehead (1978) proposed propositions as hybrids of pure potentialities and actualities (p. 185). Singular propositions for Whitehead contain the potentiality of an actual world including a definite set of actual entities in complex reactions. Deleuze and Whitehead diverge to an extent at this point in that Whitehead wished to extend actual entities to set up relations with eternal objects or "predicates of the proposition," (Whitehead, 1978, p. 186). The singular proposition for Whitehead includes in its potentiality the complex predicate finding realisations in the *nexus* of reactions between logical subjects (the definite set of actual entities). Deleuze (1994a) pursued the argument by turning to problematic Ideas rather than remaining on the level of singular propositions. Problematic Ideas are not simple entities, but are multiplicities or complexes of relations and corresponding singularities. For Whitehead, the question of the problem is figured in relation to actual entities, each with their own formal existence, entering into objective relations with the actual entity in question. The

answer for Whitehead (1978) is to posit the “creative action of the universe” (p. 56), always becoming one in a particular unity while adding to the multiplicity of the universe. This for Whitehead is the concrescence into unity, which every entity must enter into as a result of its creative action and the establishment of new relation, which Whitehead (1978) termed as *innovative becoming* (p. 79). Deleuze (1994a) characterised the problem of thought by the distribution of the singular and the regular, distinctive and ordinary points taking place within the description of a multiplicity in relation to the ideal events, which constitute the conditions of the problem (p. 189). The problem for western education is the production of otherness in its very folds.

It could be said that Deleuze and Whitehead both worked on the problem of otherness in a complementary manner. The work of Deleuze (1994a) and Whitehead (1978) is comprehensible as parallel yet distinctive projects that add philosophical detail to the action of singularities as nomadic others in technological environments; however, I would not wish to posit an identity or assemblage, such as Deleuze-Whitehead, in the manner that Alain Badiou (1994) does in his essay concerning *The Fold*. The creative difference of Platonic Forms in Whitehead, opposes the actual difference of singularities in Deleuze. Both thinkers are joined more definitely in their appropriation of Bergsonian notions of *durée* and intuition, and a dynamic relationship to science. In Whitehead’s (1978) terms, temporal endurance (*durée*) depends on *subjective aim*; his expression for Bergson’s intuition is *conceptual prehension*. This temporal endurance selected for any one actuality, determines how the extensive continuum is atomised by atomic actualities of a locus in the “unison of becoming” (p. 128). Whitehead’s philosophy of the organism, which presents a coherent cosmology for science in terms of process, then establishes the foundations for mathematical expression of physical science. These complex categorial conditions (Whitehead, 1978, pp. 219-283) consist generally in satisfying some condition of a maximum, to be obtained by the transmission of inherited types of order. Otherness in this sense is dependent on time concerns in the individual that might extend and create this sensation as working processes. Whitehead would therefore diagnose the narrative forms of otherness in the education system as deriving their nature from relative and interactive worlds of mediation that are being created through the technological and augmented regimes of change that have swept through highly industrialised countries.

Deleuze (1988), on the other hand, has highlighted the Bergsonian schema for time, which unites *Creative Evolution* and *Matter and Memory*, and is a contrasting way of examining the virtual transformations that are happening due to the post-modern nomadism in contemporary society. Deleuze worked by beginning with an account of a gigantic memory, a multiplicity formed by the virtual coexistence of all sections of a cone (p. 60), each section of the cone is a repetition of all the others and is distinguished from them only by the order of relations and the distribution of singular points. The one-whole point of unity in Whitehead and the Platonists is for Deleuze (1988), a *virtual point*, where duration is difference in kind, in itself and for itself. Differences in kind and degrees of difference coexist in a Single Nature through the virtual point, where Bergson spoke of different

intensities and degrees in a virtual coexistence, in a single Time or simple Totality (p. 94). Actualisation of the unity take the form of divergent lines, each of which corresponds to a virtual section and represents the incarnation of the order of relations and distribution of singularities peculiar to the given section in differentiated species and parts (Deleuze, 1994a, p. 212). Singular otherness is therefore the workings of this virtual point according to Deleuze. It is not the idealism of the Platonic forms of Whitehead. On the contrary, the production of the narratives of otherness is a communal affair, based on the material condition for the war machine, such as the companies that produce software for virtual war games. It is in a state of heightened intensity due to global conflict and differing ideologies coming into contact through material concerns such as the need for oil. In terms of education, the Deleuzian perspective is to explore the workings of the virtual point and to disseminate strategies that make the singular otherness that is harnessed through virtuality real for the students. This approach corresponds to the recent ideas of James Gee (2004), in which he suggests that virtual reality games act as conduits for complex learning behaviours that would stimulate interest in mainstream literacy practices.

The direction of the Deleuzian argument leads against multiplicities conceived of as numerical, quantitative multiplicities, of the kind G.B.R. Riemann and Einstein (Einstein, 1920) have proposed. For example, when speaking about Freud's psychoanalysis of the Wolf-Man; "These variable distances are not extensive quantities divisible by each other; rather, each is divisible, or 'relatively divisible', in other words, they are not divisible below or above a certain threshold, they cannot increase or diminish *without their elements changing in nature*," (Deleuze & Guattari, 1988, p. 31). The Bergsonian suggestion, in contrast to quantitative multiplicities, is of qualitative multiplicities and difference 'in kind' not "in degree". However, qualitative and quantitative multiplicities do not act dualistically, but given Bergson's *durée*, act from unity to multiplicity, virtuality to actuality. Deleuze does maintain ground for the ideal or transcendental in the virtual, but his process of actualisation is not a degradation or copy in the real: it uses the creative, immanent, explosive force of life itself.

Thus Deleuze came upon his "formula" for creativity through intense philosophical work. These explosive acts that he has used in order to constitute qualitative multiplicities may join together in libidinal action or in the form of desiring-machines. In the context of educational otherness and narrative forms, the rebellious and anti-disciplinarian discourses in our education systems are animated and driven by such forces. This is why Deleuze, perhaps resting heavily on Nietzsche and Spinoza, gives us the freedom to track otherness down to its root causes. The nomadic otherness (or war machine) that is set free by the internet and SMS messaging; is vitalised by the singularity of its expression and the sexual power that it evolves in conrescence. In addition, a "new transversal subjectivity emerges, which takes others as constitutive moments in the construction of a common plane of becoming," (Braidotti, 2005, p. 10).

RELATIVE AND CONSUMER OTHERNESS

If we dig deeper into the nomadic otherness that is produced by technologies such as the internet and SMS messaging, we find the commercial mores that characterise late or fast capitalism. It is all too easy, as Deleuze & Guattari (1988) put it, to get carried away with a kind of “science fiction” of micro-connectivity (p. 422). The retention of an exterior approach to the artefacts and processes involved with learning in contemporary global society is to construct a perspective of cyber-materialism. This complex position retains the exteriority of desire and its many connections (Murphie, 2005, p. 18), so that they may not be hidden by the mind seeking knowledge in education or idealism – even if it is in a micro or local and qualitative sense. It is also in line with contemporary sociological investigations:

...the consumer takes on the role of the agent of aestheticization, or of branding. For example, the tourist consumes services and experiences by turning them into signs; by doing the semiotic work of transformation...it turns referents into signifiers. This is one sort of the demand-side of semiotic work that characterises what Featherstone calls the aestheticization of contemporary everyday life....this aestheticization leads to an endless profusion of space odysseys- subjects & objects travelling at increasingly greater distances and speeds. Objects are emptied out of meaning and material content (Lash & Urry, 1994, p. 15).

Deleuze and Guattari (1984) explored these processes most effectively in *Anti Oedipus*. In this work, the micro processes of integrated otherness are spread on a global economic and political plane. They are summarised through the conjunction, *desiring-machines*. This figure is still relevant today as the machinic qualities of fast information based capitalism mesh ever deeper into the languages of desire that we might formulate. As Claire Colebrook (2002) has expressed it, “Any practice, technology, knowledge or belief can be adopted if it allows the flow of capital,” (p. 127). This is a serious point for education, as it puts any intellectual work under pressure, as Bronwyn Davies (2005) has vigorously explored in terms of neoliberalism. She signals at the end of her piece an escape route through desire, that constitutes as she puts it, “narratives and storylines, the metaphors, the very language and patterns of existence through which we are subjected and made into members of the social world,” (p. 13). Deleuze does take us further into the language of desire as he opposes subjectification by positing desire in terms of the plane of becoming or immanent nomadism. In terms of education, there is no hiding place from fast capitalism in the human subject and the tendency to use emotional language; as it has been thoroughly and effectively hollowed out through marketing and the expression of desire for products. Immanent nomadism escapes such relative emptiness through the possibility of singular otherness and the formulation of a constitutive language of desire that is formed as Sue Golding (1997) has expressed it through the construction of a surface or immanent material plane of change.

This perhaps brings us close to the kind of desire that reflects the narrative forms that we find in contemporary educational otherness. The speedy circulation

of objects emptied of meaning creates a type of aesthetic experience, which is thoroughly mediated. It is tempting at this point to make the conjunction constituted by Deleuze-Baudrillard, in that we have reached a similar level of 'object politics' (cf. McLaren & Leonardo, 1998, pp. 215-243), where the work of the two theorists may be joined. Yet Baudrillard does not leave an escape route from the submergence of multifarious sign-symbol relationships, and the ways in which consumer otherness may belittle and dominate education. Deleuze, on the other hand, does give educational theory credence, and the mapping out of the narrative forms of educational otherness that have been presented in this chapter provides the lines of flight for education (cf. Leach & Boler, 1998). Deleuze and Guattari (1988) originally used the phrase, 'lines of flight' in *A Thousand Plateaus*; where it signifies that social phenomena include escapes and inversions, and it is along these lines of flight that the escape from organisation and centralisation happens; it is a process of leaking between categories. The learning process in this context is condensed in time and extended through space - it communicates a sense of mutated and paradoxically unreal reality (cf. Ansell Pearson, 1999). The curriculum sits on this sense of unreal and accelerated reality as a hyper *site of mediation*, rather than a stable overlay of categories of learnt knowledge, skills or process that might depress this sense of unreality.

CURRICULUM OTHERNESS

It is a fact of any educational innovation that nothing will change in schools unless teachers are included and part of the new programme (Seaton, 2002). The most pressing issue for them is going to be in terms of curriculum reform that would incorporate the narrative forms of educational otherness into the production and functioning of their lessons. Important questions that should be asked to aid this incorporation include:

- How can teachers use the effects of legitimisation and the ways in which minor narratives are created that challenge meta-narrative status?
- What are the language-games that deal with otherness?
- How can teachers use the language of desire?
- How can nomadism help to generate engagement and interest in lessons?
- How does the notion of singular otherness infuse teaching practises?
- What are the lessons of relative and consumer otherness that would augment knowledge provision?

To help answer and structure these questions, and to put forward a Deleuzian curriculum of otherness, I have formulated these ideas into a knowledge curriculum diagram:

- The narrative form of history would embrace 'perspectivism' through the understanding and insider knowledges of multiple cultures and time periods rather than mono-culturalism (imperialism).
- Geographical narrative forms should extend from the study of 'natural processes' into urban space, discursive space and surveillance (Davis, 1990).

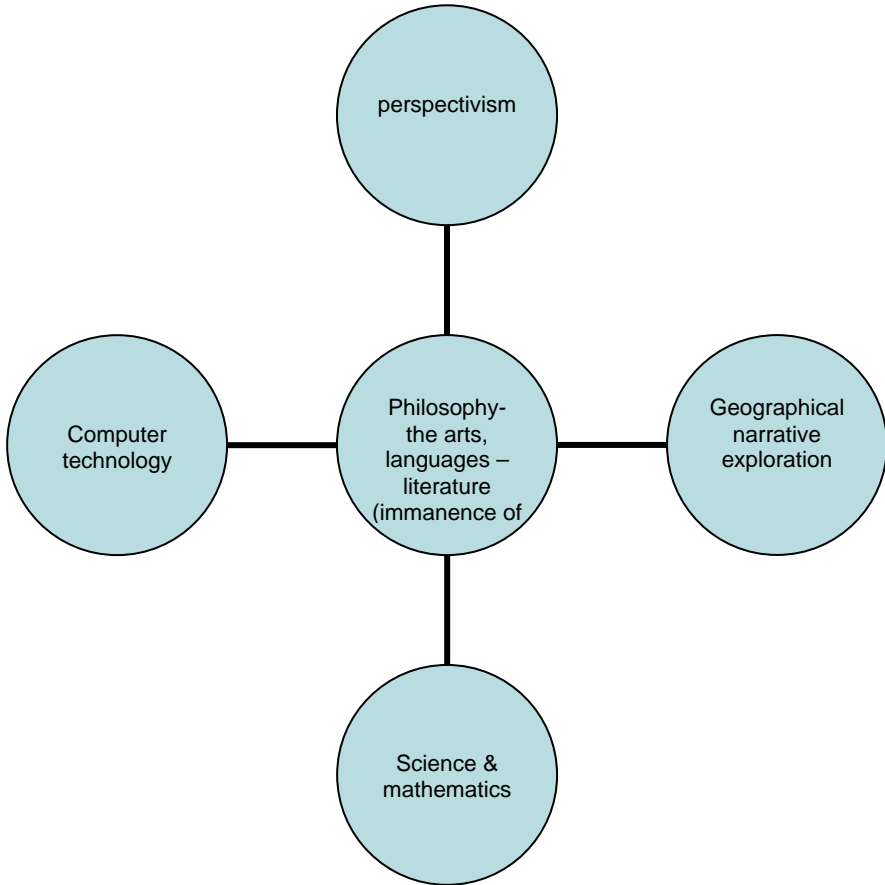


Figure 2. Deleuzian curriculum of otherness.

- The learning of science and mathematical narrative formats should act as a kind of intellectual buffer zone before embarking on creative application of these formats.
- Computer technology sits at the heart of the acceleration in the circulation of signs and emptied signifiers and should be immanently attached to cultural significance rather than merely learnt code.
- The narrative forms of philosophy, the arts, foreign languages and literature should be central to the curriculum and the way in which mediation is dealt with through educational research and organisation.

This simple curriculum framework for construction should act to enable teachers and students to explore otherness and the ways in which it is present in our narrative formats in education. It is by no means prescriptive or definitional with respect to the type of content material the teachers might look to insert into each

part off the curriculum, as this will wholly depend on local needs and wishes. What this curriculum does is encourage substantial engagement with otherness, and what could be termed as, “the connection of a multiplicity of molecular desires...that should act to catalyse change on a larger scale,” (Guattari, 1995, pp. 230-231). In our case it is through teachers capitalising on the narratives of otherness in education to build strong links between their curricula provision and the conceptual and affective growth of everyone in the places where they work.

CONCLUSION

In conclusion, I would like to take us back to the one of the sources of otherness in Deleuze, and that is the writings of Friedrich Nietzsche. In a lecture about the philosophy of Nietzsche, Fred Ulfers (1999) explains how he integrated otherness into being:

When I said self-same, self-contained beings; the notion of being is important here because it's not an aspect of the 'given-ness' of a self but the result of the violence of simplification and falsification of the singular, whose otherness can never be reduced to the 'is', the self-presence of being, since it is radically temporal, event-like, constituting continual transitoriness and fleetingness.

As such the Nietzschean conception of otherness built a picture of the self that may act as a springboard for Deleuze's singularities and nomadism. In education these are non-foundational moments; that may come along during class time or more likely as we consider our teaching strategies and results, and ruminate about the ways in which we may improve and enhance the student's experience. Otherness leads away from the social and cultural perspective of education; that may be vaunted as a means to giving students social justice and egalitarian rights (McLaren, 1989). This does not mean that concentrating on the narratives of otherness excludes the social/critical elements of education, but that it does enhance and perhaps capture many of aspects of mainstream provision that have previously 'slipped beneath the radar' in the western educational machine. As David Geoffrey Smith (1999) has put it in dramatic terms, “In the ocean of wisdom, the moment Self and Other have been identified they have disappeared, or been transformed or mutated into yet another unfolding of the drama in which all things, all people regardless of race, gender or class participate,” (p. 24). I am reluctant to put it in those terms, but certainly this statement resonates with Deleuze and Guattari's (1984, 1988) work on otherness.

The point here is that Deleuze gives us a means and focus to deal with otherness in education. In his early work, *Nietzsche and Philosophy* (1983), he signalled this intent by exploring multiplicity, becoming and affirmation. These three factors represent a politics of difference, through which we may integrate otherness into education. It is an ethical stance that takes the passion and desires present in educational contexts and proposes a way of working that does not suppress, hide or sublimate these forces, but indicates points of contact through change and narrative forms so as to make education better.

NOTES

- ¹ *Metrophage* was a cyberpunk novel that was published in 1988 by Ace Books. Richard Kadrey also put it up for free distribution on the internet, where it garnered an underground following. I chose this piece to represent a narrative form of educational otherness due to the technologically eerie and rebellious landscape that it creates.

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David R. Cole
University of Technology, Sydney
Australia