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DIPF | Leibniz-Institut für Bildungsforschung und Bildungsinformation
Informationszentrum (IZ) Bildung
E-Mail: pedocs@dipf.de
Internet: www.pedocs.de

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Riding the lines of flight

Robin Usher

Freelance consultant, Australia (robinusher@y7mail.com)

Abstract

Thinking about the future of educational research requires a conceptual resource that is itself both imaginative and multiple and at the same time articulates a world with those self-same characteristics. This is provided by the work of Deleuze and Guattari. Discussion of the future of research is located in a context of lifelong learning in the contemporary moment of ubiquitous electronic communication. I argue that the research process, contrary to the model of science, can be better understood as rhizomatic rather than arborescent and powered by desire rather than objectivity. Lifelong learning is a rhizome and requires a rhizomatic approach and sensibility on the part of the researcher. The hyper-connectivity of the Internet reinforces this development influencing the way research is carried out and the way its knowledge outcomes are distributed and used – a research without hierarchy and authority.

Keywords: Deleuze and Guattari; lines of flight; lifelong learning; electronic communication

To say anything meaningful about the future of educational research is not simply a matter of projecting from current trends. Whilst a certain amount of projection can be done, it needs to be informed by an awareness of relevant contexts and most importantly by conceptual resources which enable imaginative thought as to how the present will develop. Any future-gazing requires a conceptual resource that is itself both imaginative and multiple and which at the same time articulates a world with those self-same characteristics. In what follows, I work with a context, lifelong learning in the contemporary moment of ubiquitous electronic communication, and my conceptual resources are borrowed from the work of Deleuze and Guattari. My argument is that any future developments need to be grounded in a present which is going to strongly inform those developments. At the same time, a conceptual resource is needed that can imaginatively portray the present whilst providing insights into future possibilities free of the oppressive grand narratives of the Western Enlightenment.

Lifelong learning and connectivity

Lifelong learning has many significations but some common elements can be discerned. As well as ubiquity, it also signifies 'flexibility'. Many policy texts heavily emphasize that there are many different ways to engage in lifelong learning, from the formal certificated education routes to informal learning purely for interest or 'fun'. It is noticeable however that the personal development and active citizenship likely to be gained through lifelong learning are not seen as desirable in their own right but as necessary for the 'knowledge society' and the 'labour market', both of which are nominalized and not in any sense questioned. Or to put it another way, the connotation here is that lifelong learning is becoming a strata that *services* the knowledge society and the contemporary labour market, instrumentally necessary for meeting the exigencies of globalization, economic competition and social exclusion. Although change, the rapidity of change, and the need to constantly adapt to change is highlighted, this not an immanent change.

It is undoubtedly the case that all learning has become and continues to become more diverse in terms of goals, processes, organizational structures, curricula and pedagogy. This both reflects, and is a contributor to, a breakdown of clear and settled demarcations between different sectors of formal education and between formal education and everything that could be considered a source of learning. 'Students' are re-signified as 'learners' and with this, changes follow in what is constituted as 'provision' and 'providers', in the control and content of curricula, and in the position and authority of teachers, and belatedly in educational research too. With lifelong learning therefore formal education can no longer claim a monopoly over learning. A multiplicity of activities in many contexts have sprung up which now are potentially actually coded *as* learning rather than something else.

Information and communication technologies (ICTs) and computer mediated communication (CMC), the Internet and the World-Wide Web (WWW) are key factors in the emergence of a society marked by lifelong learning. With electronic communication, where for the first time in the history of the world, one person can now reach another person or a million with equal facility, ICTs increasingly shape many significant dimensions of life. They enable new ways of communicating, new forms of knowledge formation and delivery, and the fostering of new associations and connections among people. All of this has an undoubtedly transformative potential and impacts upon both the what and the how of learning. A world of infinitely extended flows and global connections – a world of all inclusive connectivity – is being produced that contributes to an enveloping of the lifeworld -- a relationality through connectivity.

ICTs have made interconnectivity possible on a global scale, where being connected is a feature of what I term *hyper-connectivity*. This points to the infinite connections of the Internet but also to a situation where it is impossible to envisage the world and one's place in it as not being *always already* connected – or to put it another way as being fashioned through connections and connecting. We are *thrown*¹ into an already connected world and we cannot now imagine living in a world without that connectivity. The structure of this *always already connected* space is that of the rhizomatic network, here signifying both the complex patterning of global interactions and positionings that now takes place, and to the Internet itself which makes this complex network possible and is itself an effect of that patterning.

Knowledge can be widely disseminated directly from individuals, no longer needing to be filtered through organizations and institutions. All this is made possible by a decentralized and non-hierarchical structure that in turn has produced new

structures of interaction. The Internet also decentralizes the apparatuses of cultural production², placing cultural acts, such as the writing of texts more in the hands of its participants. So for example, all web pages are in a sense ‘publications’ that anyone can access. Anyone with a modicum of technical expertise, and at minimal cost, can create their own website and place their cultural products on the Internet. Through hypertext, new expressive possibilities are opened up. With ICTs, knowledge becomes globally transportable with a multiplicity of transnational global knowledge webs where different kinds of knowledge and new approaches to knowing and knowledge can flourish.

With this globally generated and distributed proliferation, the power to define what constitutes knowledge and to dominate over the production and dissemination of knowledge is no longer the exclusive preserve of universities. What constitutes knowledge is now not bound and thus defined by disciplinary canons sourced in, and policed by, the university. Whilst disciplinary knowledge itself is found in abundance on the Internet, so too all kinds of other knowledge flourish in that virtual space.

The removal of time constraints has resulted in an immediacy of communication. As well as allowing a dissemination of texts, it also undermines the traditional authority of the writer. On the Internet, texts are both ephemeral and never closed. In formal education both these characteristics are difficult to accept given the traditional embodiment of knowledge in printed texts characterized by a seeming solidity, permanence, continuity and closure. The Internet works against the fixity of texts, transferring authorship and thereby author-ity from the writer to the reader -- a very Deleuzian process of decentring.

Having sketched in the background context for my argument, I turn now to my conceptual resources. Here, I present some of the main aspects of the work of Deleuze and Guattari and I do so without any pretence to “originality” and “objectivity”. I admire and respect their work and I strongly believe that what they are saying suggests far-reaching insights for the contemporary educator.

Selectively presenting the thought of Deleuze and Guattari

Unlike other post-structuralists, such as Foucault, Deleuze and Guattari have had until recently relatively little impact on educational research even though there are signs that this is changing. To a large extent this is because their work is not an easy read, being itself written as a complex rhizome. Yet, like other post-structuralist writers, they attempt to refashion our understanding of, and therefore our practices, in relation to the dominant history of Western modernity. In other words, they do not simply write *about* a subject, but also *perform* the different forms of writing that makes critique possible.

In this performance they concoct neologisms which although they create difficulties in reading are designed to force readers to think outside the square of established modes of common sense that have become naturalized, hegemonic and repressive. This is a common and difficult problem.....how do you critique given that you must do so in the language of that which you are critiquing? Their answer is to coin a vocabulary more appropriate to critique. Although they do not explicitly identify themselves as post-structuralists, their deep critique of modernity’s beliefs in unity, hierarchy, identity, foundations, subjectivity and representation while celebrating difference and multiplicity, puts them firmly in this camp.

Central to their work therefore is an undermining or subverting of foundational and fixed views of language and meaning, theory and practice, associated with such

pervasive arboreal metaphors as the ‘tree of knowledge’, a foundationalism where knowledge becomes something that can grow, be secure and located, and where language truly represents that which is. The arboreal metaphor signifies a logical hierarchy where all is ordered and in its place. In contrast, their concept of the rhizome signifies opposition to the tree of hierarchical structures, stratification, and linear thinking. We can say in relation to our present interest in research that this term describes a research, both as substance and process, that requires multiple, non-hierarchical entry and exit points in data representation and interpretation, a research which is opposed to arboreal conceptions that work with dualist categories and binary choices.

The abiding concern in the work of Deleuze and Guattari is with modernity, the historical stage founded on normalizing and repressive discourses and institutions that pervade all aspects of social existence and everyday life. In this, they share similar concerns with Foucault. Unlike Foucault however, their concern is not with disciplinary technologies and power/knowledge regimes but on the ways in which the discourses and institutions of modernity have worked to colonise desire. Here desire, but without its dominant psychoanalytic connotation of ‘lack’, is for them a more fruitful concept than power.

They are critical of those views of the world that privilege foundational thought and essences and of discourses infiltrated by the grand narratives of the Western Enlightenment. Their target is the powerful myth of the inevitability of hierarchy and authority. For them, it is all about multiplicities or assemblages, both of individual subjects and of institutions. Both at the micro-level of individuals and the macro-level of the social, all are assemblages and for them it is through this lens that social analysis and research is best conducted.

In order to distinguish their work from modernity’s dominant logocentric tradition, Deleuze and Guattari develop a ‘philosophy of immanence’. They argue that knowledge for example, is always ‘in’ rather than ‘of’ the world. As Deleuze said in his interview with Foucault (1977, p. 206-207), ‘representation no longer exists; there’s only action – theoretical action and practical action which serve as relays and form networks’. Thus representation, the dualist conjoining of world and word is taken apart to be displaced by actions that result in the circulation or flow of meaning. With the rhizome *roots* are displaced by *routes*, with unexpected eruptions where desire plays a role and logic is not privileged.

Deleuze and Guattari argue that people, who themselves are assemblages, are connected in a multiplicity of assemblages or rhizomatic networks that are in a constant state of movement, flux and flow, setting up fluid spaces that continuously avoid being bound or enclosed -- things are metaphorically and literally ‘up-rooted’. Movements and flow are multi-directional, enabling a multiplicity of entwinements -- unlike trees or their roots, the rhizome connects any point to any other point, and its traits are not necessarily linked to traits of the same nature (Deleuze & Guattari, 1988, p. 21).

In challenging the arboreal metaphor, Deleuze and Guattari are challenging the centrality of ‘to be’ as the fashioning through which the world is represented and the associated view that everything has to be structured in terms of either-or. All arborescent models of thinking, acting, and being amount to restrictive and repressive economies of dominance and oppression. Deleuze and Guattari argue for possible new and different modes of existence where people can overcome repressive forms of identity and stasis for a constant process of becoming, to become what they term “desiring nomads”. Here, we find an emphasis on *becoming* as against a modernist emphasis on *being*, a position consonant with their philosophy of immanence.

Deleuze and Guattari, unlike Foucault, present a direct critique of capitalist society even though, like Foucault, they do not identify themselves as Marxists. Their post-structural logic is rather that of difference, perspectives, and fragments. They articulate capitalism as combining anything with anything into assemblages that homogenize everything to the values and demands of the market. As a consequence, it must subvert all territorial groupings such as the church, the family, the group, indeed any social arrangement. Capitalism de-territorializes, something which they welcome in relation to capitalism's destruction of traditional social hierarchies. At the same time however, capitalism needs social groupings in order to function effectively and therefore it must enable re-territorializations, or new social groupings such as new forms of the state, the family, or the group which in turn become stratified. Strata then are always with us but they are subject to the continual movement of de- and re-territorialisation. Furthermore, these are not sequential but simultaneous movements. Hence, Deleuze and Guattari characterize the life of any capitalist society as always in the process of both collapsing and being restructured, of de-territorializing and re-territorializing.

We noted earlier the significance of the rhizome. The "tree" is replaced by the "rhizome", the multiply connected, inter-penetrating underground network of growth without any centre. Rhizomes are networks that cut across borders, linking preexisting gaps. They are characterized by decalcomania, forming through continuous negotiation with their context, constantly adapting by experimentation, performing an active resistance against rigid organization and restriction.

Perhaps Deleuze and Guattari's most radical concept is what they refer to as 'lines of flight'. Minimally, these can be understood as a metaphor for everyday resistance but there is perhaps more to it than that. Lines of flight, big or small, are present at any time and can lead in any direction. Rhizomes are always constructed in the struggle between stabilizing and destabilizing forces, produced in the constant struggle between lines of consistency and lines of flight. Deleuze and Guattari suggest thinking about rhizomes as *vectors*, where two kinds of vector -- lines of consistency and lines of flight -- both work across rhizomatic formations. Lines of consistency connect and unify different practices and effects and by so doing establish hierarchies and define relations between center and periphery. They create rules of organization which lead to stasis and solidified strata. Lines of flight in contrast disarticulate relations between and among practices and effects, opening up contexts to their outsides and the possibilities therein. They break-down unity and coherence. They decenter centers, disrupting hierarchies and disarticulating strata.

Deleuze and Guattari are concerned to seek out the points of weakness, the lines of flight in prevailing structures or strata because it is there that possibilities for change and movement are offered. For them, they are the means of escape from the repressive strata that are everywhere. It is the rhizomatic that engenders lines of flight, re-opening flows that the tree-like structures of lines of consistency have shut down. The rhizome with its capacity for endless multiplication and connectivity has the potential to generate virtually boundless lines of flight. In this sense therefore, a line of flight is a *bridge* to a new formation. Whereas the tree builds no bridges, the rhizome is constituted by an endless series of inter-connecting bridges³. There is thus a beginninglessness, an endlessness and a multiplicity in rhizomatic meanings and practices.

So whilst a line of flight is 'liberating', it is liberating without the benefit of the grand narratives because these are yet another instance of the normalizations of a repressive or homogenizing order, and as we have seen, a line of flight is precisely a move away from such totalities. Any territoriality or strata has *immanently* within it a movement toward the de-territorialization of lines of flight. Strata are shot through with

lines of flight and this is why Deleuze and Guattari claim that, like strata, lines of flight are everywhere.

At first glance, Deleuze and Guattari sound like revolutionaries but if they are they are not ones in the traditional Left sense. Instead they speak of nomadism, lines of flight, deterritorialization, and their politics is a micro-politics. Their emphasis on the rhizomatic foregrounds the possibility of a 'thousand lines of flight', a multiplicity of exits resisting the totalities of monolithic/homogenized social orders.

In Deleuze and Guattari's account of the subject there is no mind-body dualism or the subject as an inner core. Instead the subject is defined in terms of its *relationships* to other subjects and things. For them, the body is material and affective where affectivity is characterized as 'fields of intensity'⁴. This is not simply the human experience of mind and body but also includes a domain of worldly experience extending beyond the bounds of individuals. Thus affect exists everywhere, in everyone and in everything. Their subject is a desiring machine, one kind of assemblage among many, but where desire is a force or energy -- potentially creative energy or "desiring-production". Parts of the body are linked to other objects, signs, energy flows in endless patterns of productive activity. The connections which can be made, the channels which can be formed are, in theory, infinite. Subjects are potentially capable of infinite creativity and change.

They refer to the "body without organs" (BwO) as a space of de-territorialization where desire is liberated from the constraints of all over-determined and over-determining systems, for example, both Marxism and capitalism. This contrasts with the re-territorialization dynamic of strata — the restructuring of a place that has experienced de-territorialization, the attempt to re-totalize, to structure hierarchically, to contain through institutions such as religion, the family, and the school. For Deleuze and Guattari the BwO connotes opposition to *organ-ization* and the *organ-ism* where the body is not an organization of parts but de-organ-ized, a body of affective energies, a productive force, a desiring-machine.

For Deleuze and Guattari, the subject has a nomadic potential that operates outside strata. Here, there is no fixed identity but rather an endless migration across the networks of assemblages of other desiring machines. But the subject can also be frozen by immersion in the strata of capitalism's abstract machine. The subject therefore, and indeed the social order generally, is fashioned by the limiting of connectivity and nomadism, the closing down of the infinitely possible avenues of desiring-production through lines of consistency, the re-territorialization and re-forming of strata. Nomadism is de-territorialization, the taking off on creative lines of flight that work outside the conceptual structures and rationalities of the established order.

As nomads, subjects randomly connect signs, energy flows, data, knowledge, fantasy, objects, and other bodies in new flows of desiring production. Lack, on the other hand, is something that is artificially created by capitalism and desire is not to be identified with lack. It is not an imaginary but a real productive force, desiring production in the social field. Reality itself is constituted as configurations of the two kinds of vector we mentioned earlier— lines of consistency and lines of flight — but ultimately desire constitutes social reality for these are both powered by desire where lines of consistency manifest the desire for stasis, lines of flight for the nomadic. As we have seen earlier, both are always present.

The central problem for Deleuze and Guattari then, the danger that is continually signified in their work, is *totalizing processes*, any theory, philosophy, discourse or practice that becomes monolithic and whose effects can be ubiquitous and destructive (Taylor, 1998). A totalizing theory is a stratum that territorializes and controls.

Everything is seen through its own lens that then, in turn, fashions the world according to that lens -- that of hierarchy and authority. The rhizomatics of Deleuze and Guattari is thus a critique of all totalizing logics, of all systems that attempt to explain everything within one interpretive framework or hierarchical master code.

Lifelong learning through the lens of Deleuze and Guattari

I noted earlier the increased significance of the term “learner”. It signifies that rather than there being no choice because there is only a pre-defined curriculum based on a search for enlightenment and the mastery of a canon of knowledge, choice exists, a choice made on the basis of desire. That desire should signify in learning no longer therefore evokes something perverse and un-educational. Those who claim that this is not what learning is ‘really’ about are still enfolded in a myth where learning is pre-defined and delivered by the pedagogue. Deleuze and Guattari’s philosophy of immanence subverts this transcendental position.

The need to understand learning in terms of its enfolding within different social practices means that lifelong learning cannot mean simply a structure of provision or a set of principles about education. Learning is to now be more readily understood as carrying many different significations about a diversity of learners and a diversity of learning in a variety of settings and practices, all enfolded within a variety of contemporary social practices, each with different effects of positioning and identity formation.

There is no mention of lifelong learning in the work of Deleuze and Guattari. However, that does not mean their work cannot be deployed to better understand it. On the contrary, they provide valuable conceptual resources through which it is possible to understand lifelong learning differently. This is particularly the case with their concepts of the “rhizome” and “lines of flight”. As we have noted earlier, even the most solidified strata, such as capitalist society, carry nomadic lines of flight within themselves. Equally, the work of the rhizome de-territorializes strata, subverts hierarchies and restores desiring-production. It follows the flight of heterogeneity, there is a multiplicity of learning, other ways of knowing, as connections are made and unmade.

To explore this further, we need to note the significance for Deleuze and Guattari of the conjunction “and” in relation to the rhizome:

The tree imposes the verb ‘to be’, but the fabric of the rhizome is the conjunction, ‘and... and... and’. This conjunction carries enough force to shake and uproot the verb ‘to be’.
(Deleuze & Guattari, 1988, p. 25)

The conjunctive ‘and’ here becomes integral to rhizomatic approaches that shake the tree of knowledge and disrupt the arboreal. In this disruption, meaning is mobilized rather than grounded. An essentialist ontology of being and the binary logic of either-or are displaced with one of becoming, of flux, movement, flow -- and the “and” of connections and alliances. Deleuze and Guattari’s aim is to ‘establish a logic of the AND, overthrow ontology, do away with foundations, nullify endings and beginnings’ (Deleuze & Guattari, 1988, p. 25).

The possible lines of flight in relation to lifelong learning point to the play of difference that contrasts with, and contests, the abstract machine of the governmental, including formal and institutionalized education. Deleuze and Guattari argue that the

‘and... and... and’ of rhizomatic lines of flight result in a certain tentativeness, a stammering:

It’s easy to stammer, but making language itself stammer is a different affair, it involves placing all linguistic and even nonlinguistic, elements in variation, both variables of expression and variables of content. A new form of redundancy. AND... AND... AND... (Deleuze & Guattari, 1988, p. 98)

“And” thus points to the multiple conjoinings and connections made possible by desiring production.

While governments and related institutions want to root the meaning of lifelong learning, on this understanding of the ‘and’ it is nonetheless ceaselessly de-territorialized, given that rhizomatic variation is always in play:

‘And’ is not simply a connective, joint, hinge between two things, it also implies progression (better and better), causation (and then), great duration (on and on), great numbers (more and more), addition (this and that equals those), differentiation (there are writers and there are writers), variety (X and Y), and succession (walking two and two). (Doel, 1996, p. 422)

Thus “and” does all sorts of supplementing work both completing and *adding to*. Lifelong learning cannot therefore be simply located within any one stratum whether it be the educated society, the learning market or globalisation. Instead “and” mediates, mobilizes, completes and radicalizes. It refers to the ceaseless play of de-territorializing and re-territorializing. It can take multiple forms.

What then are the implications of articulating lifelong learning rhizomatically? It could be argued that learning has itself escaped on a line of flight from the stratum of institutionalised education into the rhizome of lifelong learning only to find that it is in danger of becoming re-territorialized into yet another stratum. The abstract machine of the contemporary order always attempts to stratify learning, to institutionalize it in some form and to make it the instrument of economic policy. One manifestation of this is the foregrounding of the rational in the form of policy, practice and research at the expense of desire. Yet this stratified learning is always in tension with the learning involved in desiring production – affective and always potentially able to take off on a line of flight away from all the stratified signifiers of lifelong learning – including effective technique, flexible skilling, good citizenship and happy, self-fulfilled people. Thus lifelong learning is not any one thing – it is not ‘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’ (Bogue, 2004, p. 328).

The “and” becomes within lifelong learning, the endlessness, the ever-more immanent within it, even with the attempt to root in specific and definitive meanings. Inferences may be drawn from particular contexts, but manifestations elsewhere, as lines of flight, are inherently unpredictable. Indeed if we follow Deleuze and Guattari, there is always learning as the energy of the desiring body and it is always lifelong because this desire is never final.

Learning is rhizomatic, it stretches, bends and conjoins, making all sorts of intended and unintended senses, stretched across time and space in unexpected multiple ways. Our learning is through the connections we make rhizomatically as well as those that are allowed and valued by the abstract machine. “And” therefore inscribes a certain grasping for more, but not necessarily just in terms of climbing trees, perhaps more through following different lines of experimenting, of taking off on lines of flight. Thus

lifelong learning can both give expression, and be subject, to the logic of “and”. There is always more and the more can be and often is very different.

Lifelong learning is without beginning and without end across the span of one’s life, and this both contributes to, and arises from, the logic of the rhizome. In this sense, lifelong learning can be a line of flight, linking and conjoining in all sorts of unexpected ways. Embodying difference, it cannot be fully regulated by totalizing and technicist practices. Whilst lifelong learning can, and indeed has, become stratified, it is always actually and potentially taking off on lines of flight.

Communicating in the contemporary world

I am going to argue that a society with such vastly expanded and continually expanding communication possibilities looks remarkably like a Deleuzian world of de- and re-territorializations, lines of flight, and the connections and multiplicities of the rhizome.

Communications technology has connected the entire world and created a global culture. Anyone who can access the Internet is part of this culturally diffused community. Once a local culture is part of the global community the process of de-territorialization and re-territorialization continues as the global culture takes from and feeds all the communities that take part in it. The Internet has enabled these processes of de-territorialization and re-territorialization to take place at a global level. For example, when a new area of the world gains access to the Internet, the community also gains access to every other community that has access to the Internet. At that moment, the de-territorializing process begins as the local culture is enveloped by the global community, with re-territorialization occurring immediately after with the local community becoming part of the global culture.

Whilst we must be mindful of Deleuze and Guattari’s warning of getting carried away with the ‘science fiction’ of micro-connectivity (1988, p. 422), it is nonetheless becoming clear that the condition of hyper-connectivity I spoke of earlier is shaping the contemporary world, both physically and in terms of subjectivities. We live in a Deleuzian world. Individualistic accounts of learning are being displaced by relational understandings as forms of connectivity become ever more significant. For lifelong learning, hyper-connectivity constitutes an environment where the Internet and its associated services become accessible and immediate. This means that all learning potentially becomes lifelong learning, just-in-time, just-when-needed, and always-there.

Education as an institution occupies a troubled space within these developments. It is a modernist institution of “spaces of enclosure”, such as the printed text, the classroom and the curriculum. These spaces of enclosure are now called into question. Mirroring the rhizomatic features of cyberspace, there are less boundaries and hierarchies. There is more scope for learners to *construct* knowledge rather than just passively receive it. People are more likely to understand their own identity as that of ‘learner’ and more likely to be in a position to determine their own learning and paths of learning. Learning can thus be now signified more in terms of multiplicity, of multiple paths, non-linear forms, moving from the fixed institution-based space of education to a more open and unbounded terrain of learning.

All the modernist signifiers of centre, margin, hierarchy and linearity in formal education become de-territorialized. Instead, there is multi-linearity, nodes, links and networks, challenging modernist spaces of enclosure and in the process providing the conceptual resources for justifying changes in what constitutes knowledge and the way it is produced (research).

Research through the lens of Deleuze and Guattari

Research is about knowledge production. In the social sciences, with few exceptions, science and rationality have been its measure. All have been neurotically obsessed by the 19th-century scientific model and with this has come the consequent dominance of quantitative and statistical methods. In this model, knowledge is generated only through the objective, inductive activities of science. Observation and experiment reveal fundamental laws of nature that govern both natural and social phenomena. Government and funding bodies favour such research because it legitimizes what they do on the grounds of evidence based policy and practice, in the process reinforcing its power and legitimacy.

Furthermore, in the scientific model rationality is to be understood as a natural kind rather than an outcome of the norms and practices of particular societies. As researchers we extend our knowledge systematically by deploying this invariant and universal standard of rationality. The consequence of this has been the refusal to question how researchers create their texts, the assumption being that the proper use of methods will neutralise personal and political influences. Political stances evaporate, researchers are deemed free of their own cultural confusions. Texts are author(itative) but seemingly without author(ity), obscuring the ways in which researchers *construct* their analyses and narratives - they are written as if researchers were simply vehicles for transmission with no voice of their own. On the contrary, even though it goes largely unrecognised and unacknowledged, what's at work in research is *textuality* - the rhetorical devices and conventions which organise meanings in the research text in particular ways and for particular effects.

There are also issues to do with power. In the relationship between researcher and subjects, it is the former who defines the problem, the nature of the research, the quality of the interaction between researcher and researched, the theoretical framework and the categories of analysis; and of course who writes the final text. Researchers (whether quantitative or qualitative) are essentially in the business of creating coherent master narratives, masterful narratives which require the Other for their coherence but where the Other is never the active agent.

What this implies is that science is in, not above, historical and linguistic processes, in other words, that it cannot free itself of its own cultural confusions. By focusing on writing, text-making and rhetoric what is highlighted is the *constructed* and *contested* nature of all cultural accounts (which research basically is despite its different guises). By deconstructing in this way science and research in the scientific mode, seemingly transparent modes of authority are undermined because what happens is that research is now seen as 're-presenting' rather than representing the world. It also has the effect of showing that all research is implicated in economies of truth and regimes of power.

In relation to this, I want at this point, to consider what Deleuze and Guattari can contribute to our understanding of research in the contemporary moment. I am interested particularly in the kind of methodological issues just raised concerning the *process* of research and the place of the researcher. Also, I touch upon what insights their work might afford as to what we could and should be researching.

First, it is undoubtedly the case that Deleuze and Guattari's work has had a significant influence on so-called 'non-representational theory'. In particular, their concept of *affect* challenges the scientific model's notion of representation and the objectivity of the researcher. Earlier, I argued that affect refers to 'fields of intensity' powered by desire. The project of knowledge generation therefore cannot be properly understood simply as a matter of disinterested objectivity but rather as something that is

driven in its process by desire. So-called objective representations then become an artifact of the research process itself. Furthermore, if subjects are desiring, affective subjects then this further undermines science's positing of affect-less subjects (researchers) who gain knowledge of the truth which they then transmit (represent) transparently to others.

Second, I would argue that seeing research as writing, text-making and rhetoric is simply another way of highlighting research as a desiring production, one which shares the characteristics of all Deleuze and Guattari's social phenomena. Research in the contemporary moment is a stratum, institutionalized in universities and research institutes, financed by government and grant bodies. It has become a regime of power, increasingly more centralized and subject to hierarchical control. Goal-ordered rationality (an economy of truth) in the service of evidence-based policy and practice has become the norm.

In this context it is worth returning briefly to Deleuze and Guattari's argument about capitalism. Capitalism de-territorialises, it shapes everything into a line of consistency. As Colebrook (2002, p. 127) has expressed it – 'any practice, technology, knowledge or belief can be adopted if it allows the flow of capital'. In research as a rapidly growing stratum, capitalism's lines of consistency are clearly discernible. These connect and unify different practices, establish hierarchies and create rules of organization, trends which are clearly discernible in contemporary research⁵. Consistency can be seen in the pressure on researchers for outcomes that are commercialisable rather than curiosity driven and in the emphasis on research as a driver of economic competitiveness in a globalised world.

Equally, however lines of flight are present, even if not so readily discernible. If we accept what Deleuze and Guattari say about lines of flight, every stratified social phenomenon also includes escapes from, and inversions of, its organisation and centralization. As far as research is concerned, this is relevant both to methodology and to the subject(s) of research. In relation to the latter, as we have noted earlier, Deleuze and Guattari anticipate a different mode of life where repressive modern forms of identity and stasis are overcome and where in a constant process of becoming in a rhizomatic society people can be desiring nomads. This, as we have noted earlier, has been accelerated by the introduction of information technology. Mobile phone and Internet based technologies such as SMS, texting and blogs have created forms of communication that are the most obvious manifestation of hyper-connectivity. The effect of this is to encourage nomadism, to set free nomadic otherness⁶. Thus the subject of research comes to be understood as a nomad and the subject (object) of research becomes nomadism. Even the place of desire becomes a site for research into hybridity and non-linear and multi-linear forms.

The recognition both of lines of flight in research and of research itself as a line of flight means that methodology becomes more multiple and flexible, no longer solidly stratified in scientific method as the only guarantor of knowledge, truth and certainty. Methodology too can take off on a line of flight where in terms of approaches to, and in processes of, doing research, difference and multiplicity are emphasized. The authorial omniscience of the researcher, the demand that all research demonstrate completeness and integrity, all have been challenged; a challenge which parallels Deleuze and Guattari's challenge to all totalizing logics and processes, hierarchy and authority.

Getting off a line of flight

I have tried to show that research is a stratum that like all strata manifests contradictory tendencies which following Deleuze and Guattari I refer to as lines of consistency and lines of flight. The research process, contrary to the model of science, can be better understood as rhizomatic rather than arborescent and powered by desire rather than objectivity. In order to “ground” this way of seeing research differently I have taken lifelong learning and electronic communication as both context and catalyst within which to locate and foreground research. There is a powerful symmetry between lifelong learning, hyper-connectivity (which uncannily embodies, and has helped to bring about, a society with rhizomatic characteristics⁷) and Deleuze and Guattari’s critique of hierarchy and authority.

For researchers in the field of education both these phenomena and their rhizomatic characteristics have significant implications for doing research. Lifelong learning presents itself as a legitimate area of research and being rhizomatic it requires a rhizomatic approach and sensibility in the researcher. The hyper-connectivity of the Internet reinforces this development influencing the way research is carried out and the way its knowledge outcomes are distributed and used – a research without hierarchy and authority. Thus whilst I would not wish to make predictions per se about research, I would at the same time argue that many of the directions in which the trends are moving are clearly discernible.

Notes

¹ I mean this in a Heideggerian sense

² The Internet is also decentralized at a basic level of organization since as a network of networks, new networks may be added provided they conform to standard communications protocols.

³ Or as Deleuze and Guattari playfully put it: *pas les points, mais les ponts*

⁴ These fields of intensity are produced and experienced not only by humans, but by different forms of 'agency' such as animals and computers, or even movement, thought, and space.

⁵ I am reminded here of Lyotard’s argument that all research in the contemporary becomes “performative”

⁶ Of course, underlying nomadic otherness are very often the commercial pressures of contemporary capitalism.

⁷ By this I mean that Deleuze and Guattari did not explicitly foresee this although it is immanent in their work

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