

© 2005 Adrian Chan 415 626 4980 Adrian@gravity7.com http://www.gravity7.com

Reading Notes: Harold Garfinkel, Niklas Luhmann, Gilles Deleuze

Social Interaction Design

I'm using the following reading notes to flesh out some of the philosophical foundation of what I'm calling *social interaction design*. I want to do this for a couple reasons. First, social interaction design has an uncomfortable relationship with the cognitive science that grounds much conventional HCI and interaction design approaches. As we're dealing with communication and interaction between people, we must be concerned with more than just efficiency and success as defined by user goals and needs. Our domain is meaning, and its production in communicative contexts, whether they relate to work, dating, file sharing, discussing, or what have you. Second, we need a framework for the observation, description, and explanation of mediated communication. We'll need to reference sociological insights (and related fields, such as linguistics and psychology), but with conceptual modifications that can account for the distortions introduced by technology's role in communication.

It would be easy to proceed with a framework for social interaction design without digging into its philosophical underpinnings. But I'm a philosopher by passion, and so the temptation to assemble a conceptual matrix capable of treating technologies not just as tools or extensions, but as mediators in the very production of individual and interpersonal experience was too great to resist. There, late 20th century continental philosophy, and that of Deleuze and other "post-structuralists" (Derrida, deCerteau, Kittler, Lotringer, deLanda, Hardt, Zizek, Baudrillard et al) has already established a well-known body of work. And while their interests and approaches to society, communication, technology and so on are varied and sometimes incomparably so, they provide advanced ways of viewing technology's role in the production of reality and subjectivity. Communication technologies are with us to stay, and I am as compelled by the idea of exploring the technical production and mediation of meaning and relationships in theory as in product and consulting work. ;-)

These reading notes are thicker than the usual. I was surprised to find connections between Garfinkel and Deleuze (their strong views of practice and empiricism). Similarly, between Luhmann and Deleuze (construction of the subject, self-reflexivity as

built on practices), and Luhmann and Garfinkel (issues of observation, description, and practices). I'm not yet decided on how best to carve up communication, interaction, and action (as does Luhmann), nor how best to use systems theory. And while the Deleuzian passages quoted below may seem unnecessarily deep and profound, Deleuze takes a stand on empiricism and on associationism that I find extremely useful for a theory invested in connections and connectivity.

I've attempted to round up some of the problem areas below. The quotes, I've left to speak for themselves. I will revise this one over time as I find further material for the connections suggested here.

The problem of user-centric approaches

Social technologies permit communication and interaction among users separated in time and space. Sites like Tribe, MySpace, Friendster, or dating services like Nerve or Match, even applications used in corporations for knowledge management, distance learning and what have you—these are all social technologies. And yet we have a very thin grasp of what makes them social in a manner unique to them, and perhaps even less of a grasp of how we, as designers, might incorporate "social" into design and architecture.

Existing design approaches tend to emphasize user needs and goals. Behaviors are understood in terms of the success users have in reaching those goals. But the activities and phenomena of social media are far more complex than those of, say, online banking. An online dating service involves voyeurism, anonymity, the play and etiquette of winking and wooing, aspects of self promotion and personals, not to mention the data collection and organization required to match members. A "hot" dating service is hot not because it produces a lot of relationships (members would then presumably cancel their memberships, their goals having been seen to); it's hot because it's got action. Sociologists know what that is, but where in an engineering spec, a navigation schema, a taxonomy, or even a web design, do we put "action?" Will a button here or there produce more of it?

I've argued elsewhere that social interaction design involves the second order effects of design decisions and choices. That a first order design element, say, pictures on a classifieds site, has second order effects: to wit, popularity, good looks, and expressive self-portraits and images. We speak of second order effects because social interactions scale. For example, conversations between speaking pairs add up and accumulate, resulting in net effects that exceed the actions of each contributing conversation pair. Multiply these kinds of phenomena, occurring over and through financial transactions, intimacies, advice-giving, match-making, ride-sharing, used car-selling and other social interactions, and you get a sense of the complexity represented by "social software."

To summarize the reasons we need a profoundly *social interaction design* approach:

- User centric design is inadequate if we are to understand social interaction, group dynamics, interpersonal communication, community, and so on.
- In matters of both communication and interaction, users do not act out of strictly

- rational, goal-oriented interests.
- A self-focused view of the user, and his or her engagement in communication, risks mistaking the forest for the trees; communication is not the outcome of intended communications, but is a process of expression, interpretation, negotiation, and participation.
- Mediated communication and interaction is marked by epiphenomenal events events that are neither a direct product of technology nor a direct product of user activity, but which can best be explained as a dynamic co-production of the interaction of both.

Some of the issues raised by these authors and relevant to social interaction design:

- What kind of reality does technology produce?
- How best do we modify sociological theories to bring its insights to bear on communication technologies, in particular:
 - o concepts of presence and absence
 - o distinctions between communication, interaction, and action
 - o distinctions between dyadic (pairs or couples), group, and community
 - talk as a doing, concepts of linguistic meaning as a doubly-contingent construction
 - o connections between cultural, economic, ritual and other domains
 - o social participation as a person vs as a role
 - mass media as a means of producing a version of reality (narratives, images)
 - social networks and attendant issues of trust, groups and boundaries, etc
 - concepts of societal systems, their subsystems, and systems theoretical ideas of complexification and differentiation
- What are the facts, events, episodes, and other objective attributes of technologically-mediated social interaction?
- How do we describe a phenomenon that is not observable, so to speak, but which leaves only electronic traces, messages, recordings, images, and other artifacts?
- How must we modify sociological approaches to account for, describe, explain, and predict interaction, communication, and other forms of social and cultural organization as they occur online and with other networking technologies?
- What substantial impact do we observe in the relationship of presence and absence, co-presence, and other proximities? And more fundamentally, what philosophical perspectives help us explain the transformative power of technology while preserving an orientation based in practices?
- Do we not have to understand the manner in which communication, interaction, and the organization of activity and action at individual, interpersonal and societal levels is enabled and constrained by connecting technologies? And do we not need a view of technology that accommodates meaningful activity and practices, that is, the world as seen sociologically?

- Our views of social software and other technologies of social interaction must do more than simply refer to phenomena of face to face interaction.
- We need a design-oriented theory that clearly delineates:
 - The participants
 - o The phenomena
 - The forces and causal relations
 - The information
 - The communication
 - The reproduction
 - The domains of meaning
 - Boundaries
 - Interplay with day to day practices

The problem of observation

talking about? Participation rates on a new corporate productivity and collaborative software platform? Adoption of cel phone gaming applications? Success rates at an online dating service or career networking and job placement site? How do we observe, and what are we observing? This is a matter of critical importance to sociologists, and likewise, to those of us involved in the design of social technologies. But the fact that our users are physically separated, that their communications are often temporally interrupted, delayed, and otherwise out of sequence complicates our ability to observe mediated social phenomena (description is another problem altogether). Have we observed a communication if nobody answers? Have we observed action if it is not taken up by others? Is the production of information, the recording of transactions, a sign of action if it is automated, and if the "actor" is software? Ethnomethodology (or EM; see Garfinkel, below) raises interesting questions with respect to the observation of social practices, suggesting that there is no adequate abstraction of social practice, no conceptual overlay or objective description that can substitute for experience of the practice itself. And yet EM does claim that social life is organized, and that we do know and can explain what we're doing when we do it. If we take EM to heart, social interaction design asserts the importance of producing an understanding of communication technologies uniquely oriented to inter-subjective practices and to linguistically-mediated interactions in particular. User interface designers would now, theoretically, have grounds for a methodology attuned to secondorder social phenomena. (I am developing a framework for social interaction design

Social interaction designers need to know what they're talking about. But what are we

Some of the issues raised by EM with respect to the observation of social phenomena and relevant to social interaction design:

What is an observation of the system?

elsewhere.)

• From what position is it observed? Can it be observed from the outside, from a privileged position (not according to EM)?

- If observation is possible only through self observation of a practitioner, what consequences would this have for designers?
- Who is an observer?
- What is observed?
- What level of competence is required in order to make an observation?
- What can be observed?
- What is a unit:
 - of action
 - of information
 - o of time
- What are descriptions:
 - of activity
 - of action
 - o of actors
 - o of time
 - of information
 - of learning
 - o of progress
 - o of success
- What are characterizations?

Some of the issues raised by EM with respect to the description of social phenomena and relevant to social interaction design:

- How do we describe the system?
- How do we describe system activities?
- How do we make explanations?
- How do we make prescriptions?
- What do we look for?
 - Agents
 - Information
 - Dependencies
 - Conflicts
 - Ambiguities
 - Sequences
 - Modes
 - Social action
 - o Communicative action
 - o Couples, groups, community
 - Transactions
 - Objects and tokens
 - Symbols and signs
 - Asymmetries and bias
 - Rhythms and routines

- Changes to ordinary social patterns
- o Theme
- o Access
- Protections
- o Boundaries, edges
- Bridges
- What is the basis of a design recommendation?
- What is the goal or purpose of such a recommendation?
 - Paradoxes:
 - User success is not system goal
 - User participation is highest when users meet with least success
 - System is designed to monitor, observe users, not to contribute to user experience
 - User frustration is used as a means by which to sustain user activity/participation
 - Communication ambiguities are used by system to regulate system participation
 - System plays small role in organizational functions and operations
 - Redesign should not aim at transparency, efficiency, etc.
 - Etc.

The problem of communication

In Luhmann's systems theory, communication and interaction are separate. The former involves the understanding of information; the latter, the production of an utterance. By distinguishing the utterance from that which is uttered, we can separate communication tools from interaction tools, the former being more about communication's storage, retrieval, distribution, and the latter, the handling of interaction dynamics (faciality, gesture, meta-linguistic meanings, etc).

Some of the issues raised by Luhmann with respect to the description of social phenomena and relevant to social interaction design:

- What is communicated?
- How is it communicated?
- How is it stored?
- How is it found?
- What impact do archival techniques have on communication's durability over time?
- What are the gaps between creating/leaving communication and finding/using it later? How do these differences between the production and reproduction of communication inform the design of communication technologies?

The problem of interaction

By Luhmann's analysis, it might not be correct to describe IM, chat, videochat, and other interaction tools in terms of interaction. The delineation for other sociological theories may be more forgiving. Clearly, if face to face co-presence is required for humans to perceive and act upon one another's interpersonal communications, any mediating technology offers only an alternate means of communication, and not a means of interaction. However some social technologies, particularly near-synchronous tools like IM, bear the mark of performance, attention getting, self-presentation and other standard characteristics of interaction, especially when users know each other offline. Furthermore, our best descriptions of some interaction technologies may still be through reference to actual face to face interaction situations (e.g. chats).

Some of the issues raised by EM with respect to the participants in social phenomena and relevant to social interaction design:

- Who participates?
- What is the relation among participants?
- What temporal dislocations, shifts, deferrals, etc. does the technology introduce?
- What understanding do users have of their interaction/participation with others (through the technology)? What understanding do they have of themselves? What understanding do they have of how they are seen by others? How is the technology involved in these?
- What aspects of the production of meaning does the technology participate in most obviously?
- What is the activity?
- What actions comprise the activity?
- How is the activity organized in time?
- How is the activity organized in place?
- What episodes frame the activity?
- Who is involved?
- How does the interaction organize their contributions?
- What is the balance, for each, of their involvement as persons vs as roleperforming actors?
- How do those involved understand their involvement?
- What concerns those involved?
- What competencies are required for participation?

The problem of social practices

Sociologist Anthony Giddens characterizes science and technology as having a disembedding and re-embedding effect on social traditions and practices. Giddens claims that these disciplines, based in the rational application of reason, intrinsically undermine tradition (which acts as a continuation of past social practices, and which is protected from the self-reflexivity of science). Tradition produces the future based on reproduction of past practices (in short, traditions). Modernity re-examines rationally held assumptions through its recourse new information and the revision of cultural knowledge as pursued by modern disciplines, techniques, and rational methods. But the effect of modernity is to subject us to risk, for new information is always available.

There are no traditions behind the use of applications like Friendster and Linkedln. Or are there? Everyone knows what popularity is, and everyone knows what career networking is. Can we say that these social software sites are simply online versions of popularity contests, making friends through friends, and sometimes getting jobs in the same way? But if the interventions of technical formats and methods dis-embed our traditions, what's been dis-embedded and how has it been re-embedded? Well, most obviously, Friendster and LinkedIn permit us to network without being there. They permit others to refer to us without our being there. They categorize, organize, and control access to us, and our networking potential, without imposing on us in real time. Those are just for starters, of course. Can we then say that social software creates a new channel, acting as a tool or extension of what we do in real life? Yes, but not just that. Changes to our communication with others involve changes to how we project ourselves, how we express and impress, how we inquire, offer, argue and insult. Technologies produce changes, too, in our sense of time, for example, how long something or someone should take. Our involvements in episodes of interaction change also, some conversations now stretching out for months on a discussion board, while other text or IM interactions are but the most brief greetings or see-you-laters.

Technologies involve us in new practices. This is how we put Giddens' claim to use. Next, it's up to us to delineate the salient and relevant attributes of these new practices, to discern which might characterize an interaction tool, such as IM, and which an interaction type, such as a "hello." We need to conduct the same kinds of exercises with the whole range of social software features and tools, themes and architectures. And do the same with applications that use cel phones, text messages, gaming platforms, corporate networks, learning applications, and so on. Our practice-based framework needs to account for technical as well as social interface issues equally, and with an understanding of how each informs the use and design of the other. It's a big project, but if it's well grounded, should be feasible as well as useful.

Some of the issues raised by EM with respect to social practices and relevant to social interaction design:

- What can we take from ethnomethodology's disaffection for conceptual abstraction?
- Can we nonetheless associate technical, functional and operational attributes with communication technologies and applications? For example, characteristics of technologies that map to social action:
 - Temporal episodes, ordering, routines, synchrony and asynchrony, seriality, turn-taking
 - o Taxonomies, organization, categories, themes and topics
 - Navigation systems, alerts and signals, icons and symbols
- Should social interaction designers follow EM's principle of unique adequacy, a
 Adrian Chan
 Reading Notes 11/30/05
 8/18

- requirement that designers be (competent) users of the thing they are designing?
- The design of technologies generally follows the path of product refinement. Does this parallel changes in social and cultural practices? When does a designer intervene to anticipate cultural and technical change?
- What new social, cultural and societal relations, associations, and connections exist only because of networking technologies?
- What leverage do designers have over the second order effects that accompany technical changes? And how do we anticipate the effects, on a site or community for example, of:
 - Functional changes
 - UI changes
 - Feature changes
 - Navigational changes
 - o And so on

© Adrian Chan

Excerpts from Ethnomethodology's Program Harold Garfinkel

"The word 'Ethnomethodology' represents a very simple idea. If one assumes, as Garfinkel does, that the meaningful, patterned, and orderly character of everyday life is something that people must work constantly to achieve, then one must also assume that they have some methods for doing so. If everyday life exhibits patterned orderliness, a recognizable coherence, as Garfinkel believes it does, then it is not enough to say that individuals randomly pursuing shared goals will do similar things enough of the time to manifest trends, or patterns, of orderliness in society, an approach characteristic of Parsonian and quantitative sociology. Garfinkel argues that members of society must in fact, actually, really, have some shared methods for achieving social order that they use to mutually construct the meaningful orderliness of social situations." 5 (ed's intro)

"It was Felming's view that there was no major social theorist across the social sciences who was not making provision for the actor's point of view. That is, they were providing a theoretical account of the actor's point of view, but neglecting to treat the actor's point of view as problematic. The assumption they made was that the actor's point of view held the key to social order. For Garfinkel, however, this was a mistake. The actor's point of view could only be an artifact of social interaction." 13 (ed's intro)

"The continual emphasis in Garfinkel's work on 'just-thisness,' 'haecceities,' 'details,' 'order,' and 'contingencies,' is an attempt not to lose the phenomena through generalization. His work is about the creation of local social orders, on the spot, out of the materials at hand, in recognizable ways. For Garfinkel this is what social order

Reading Notes 11/30/05

is all about. Therefore, any way of speaking that leaves them out, or reifies them, *leaves out social order itself*, as far as Garfinkel is concerned." 18 (ed's intro)

"The phenomenon exists, but it exists only 'in and thro' and 'as of' the situation 'in which 'it appears as locally produced. It is a locally contingent phenomenon whose existence as a recognizable thing is wholly dependent on local production practices." 19 (ed's intro)

"According to Garfinkel, social facts, that is, socially constructed, or achieved, social phenomena, and in particular an understanding of the way they are achieved as social constructions, provide the key to answering the essential sociological questions regarding the character and origin of social order and human knowledge." 20 (ed's intro)

"A sociology based on accounts, or concepts, Durkheim argues, obscures the fundamental role of enacted practices in the constitution of social phenomena.... Similarly, Garfinkel could not be a positivist because the study of the process of *constructing* social reality simply contradicts all of the assumptions made by positivism." 21 (ed's intro)

"For Garfinkel, social 'reality' is not a feature of nature that the analyst is claiming to be able to observe 'objectively.' Social 'facts' are rather sounds and movements, witnessable actions on the part of participants in social gatherings, that must be recognizable to others as actions of a very particular sort, in order for social processes to have any coherence, or intelligibility, for participants. That persons perceive the movements of others at a level that is more fundamental than concepts, does not mean that those perceptions are not mediated by social expectations. That would be a positivist claim. What is being argued is that the *coherence of movements* is immediately *recognizable*, or *not recognizable*, in terms of *taken for granted expectations*, social expectations, that are yet so far prior to the level of concepts that it is difficult to even express them in conceptual terms after the fact." 21 (ed's intro)

"Ethnomethodology's fundamental phenomenon and its standing technical preoccupation in its studies is to find, collect, specify, and make instructably observable the local endogenous production and natural accountability of immortal familiar society's most ordinary organizational *things* in the world, *and to provide for them both and simultaneously, as objects, and procedurally, as alternate methods.* The identity of objects and methods is key. These methods are incarnate in familiar society. Therein they are uniquely adequate to the phenomena whose production they describe substantively, in material details. The competence of their production staffs consists in the unique adequacy of methods. The competence of their productions staffs *is*, it exists as, it is identical with, the unique adequacy of methods.

EM addresses these provisions as empirically adequate descriptions. It carries them out by eschewing methods of formal analysis. This is done without loss or sacrifice of issues of structure, and without bowdlerizing or ignoring issues of structure or changing the subject.

Without sacrificing issues of structure or changing the subject? That means without sacrificing the ubiquitousness in everyday life of the recognizable and accountable, observable recurrencies of practical actions and practical reasoning in coherent ordered uniquely adequate details of generality, of comparability, of classification, of typicality, of uniformity, of standardization. These are recurrencies in productions of immortal, ordinary things—traffic jams, service lines, summoning phones, blackboard notes, jazz piano in cocktail lounge, talking chemistry in lecture format, police protection of an ambulance run, good work in Tibetan Buddhist debates phenomena that exhibit along with their other endogenously accountable details, endogenously accountable populations that staff their production. What in the world do these things consist of? Where in the world are they found? How in the world are they found? What in the world of commonplace, endogenous haecceities of daily life does immortal, ordinary society consist of as the origin and setting of every topic of order, of logic, of meaning, of method, reason, rationality, science, truth... respecified and rescpecifiable as the most ordinary concerted lived organizationally enacted phenomena in the world?" Ethnomethodology's Program, 124.

Excerpts from:

Niklas Luhmann

Theories of Distinction: Redescribing the Descriptions of Modernity

"At any rate, what has dominated in both the philosophical and social-theoretical projects of the past one hundred years has been an intense concentration on the immanence of the posited world. The whole may be the transcendent or the transcendental condition of possibility for this immanent world, but as such it can never be perceived. In Husserl's own terminology, the world, as horizon, cannot become a theme. Consequently, the immanent, partial, and severed world, the posited world, gradually achieves autonomy and takes center stage. What was once "the whole" or the nature of "all things" that could be seized in an instant and for all time as a totality now becomes an immanent field of observations, descriptions, and communications, a "totality of facts," as Wittgenstein wrote, that must contend with the uncomfortable situation that any observation of a fact is itself a fact that can be observed. The whole that his modernity is the whole that strains to see itself and thus a whole that forever divides itself with every observation into more and more "facts." The whole we now deal with is a self-referential whole, thus an inescapably paradoxical one. Accordingly, we are no longer in the realm of a foundationalist "first" philosophy but rather in the realm of a "second-order" philosophy of observations of the self and other." 3, Introduction by William Rasch

Only communication can communicate.

If one calls this conceptual disposition into question, as I want to do, one usually hears the following: in the end, it is always people, individuals, subjects who act or communicate. I would like to assert in the face of this that only communication can communicate and that what we understand as "action" can be generated only in such a network of communication. 156, Niklas Luhmann, <u>Theories of Distinction:</u> Redescribing the Descriptions of Modernity

Contrary to fundamental assumptions of the philosophical tradition, self-reference (or "reflection") is in no way a special property of thought or consciousness, but rather a very general principle of system formation with particular consequences regarding evolution and the construction of complexity." 156, Niklas Luhmann, Theories of Distinction: Redescribing the Descriptions of Modernity

...one must begin in this respect not with the concept of action but with the concept of communication. For not action, but communication is an unavoidably social operation and at the same time an operation that is necessarily set in motion whenever social situations are formed. 157, Niklas Luhmann, Theories of Distinction: Redescribing the Descriptions of Modernity

Communication comes about through a synthesis of three different selections Like life and consciousness, communication is also an emergent reality, a self-generated state of affairs. It comes about through a synthesis of three different selections, namely the selection of *information*, the selection of the *utterance* [Mitteilung] of this information, and selective *understanding* or misunderstanding of this utterance and its information.

None of these components can appear on its own. Only together do they generate communication. Only together: that means, only when their selectivity can be brought to congruence. Communication therefore takes place only when a difference of utterance and information is first understood. This distinguishes it from a mere perception of others' behavior. By understanding, communication grasps a difference between the information value of its content and the reasons for which the content is being uttered. It can thereby accentuate one side or the other and thus pay more attention to the information itself or to the expressive behavior." 157, Niklas Luhmann, Theories of Distinction: Redescribing the Descriptions of Modernity

Even understanding is itself a selection.

Not only information and utterance but understanding [das Verstehen] is itself a selection. Understanding is never a mere duplication of the utterance in another consciousness but is, rather, in the system of communication itself, a precondition for connection onto further communication, thus a condition of the autopoesis of the social system. 158, Niklas Luhmann, Theories of Distinction: Redescribing the

Descriptions of Modernity

What is new about this concept of communication? And what are the consequences of this innovation?

First of all, the distinction among the three components—information, utterance, and understanding—is new.

One finds a similar distinction in Karl Bühler from the point of view of different functions of linguistic communication. Anglo-American thinkers like Austin and Searle have augmented and rigidified this into a theory of types of acts or speech acts. To this theory, furthermore, Jürgen Habermas has annexed a typology of validity claims implicit in communication. All this, however, still proceeds from an action-theoretical understanding of communication and still sees the procedure of communication as a successful or unsuccessful *transference* of news, information, or suppositions of agreement.

In light of this, a systems-theoretical approach emphasizes the *emergence of communication* itself. Nothing is transferred. Redundancy is produced in the sense that communication generates a memory to which many people can lay claim in many different ways. If *A* utters something to *B*, the subsequent communication can be addressed to *A* or *B*. The system pulsates, so to speak, with the constant generation of excess and selection. With the discovery of writing and printing, this process of system formation is once more immensely heightened, with consequences for social structure, semantics, indeed for language itself, consequences that are only now gradually entering the view of researchers. 160, Niklas Luhmann, Theories of Distinction: Redescribing the Descriptions of Modernity

In place of a consensus-oriented entelechy, systems thjoery posits another thesis: Communication leads to the precise formulation of the question of whether the uttered and understood information should be accepted or rejected. One believes a piece of news or not. Communication creates at first only this alternative and thereby creates the risk of rejection. It forces a situation of decision that would not exist at all without communication. To this extent, all communication is risky. This risk is one of the most important morphogenetic factors. It leads to the building of institutions that secure a disposition of acceptance even toward improbable communications. 162, Niklas Luhmann, Theories of Distinction: Redescribing the Descriptions of Modernity

Therefore, to repeat this important point once more in other words, communication duplicates reality. It creates two versions, a yes-version and a no-version, and thereby compels selection. Something must now occur (even if it is a breaking off of communication). Precisely therein lies the auto-poesis of the system, which guarantees to itself its own ability to continue. 163, Niklas Luhmann, Theories of Distinction: Redescribing the Descriptions of Modernity

13/18

Excerpts from:

Gilles Deleuze

"...in V. Descombes's helpful [one of my favorite works—Adrian] compendium of *Modern French Philosophy* one finds a reference to Deleuze's project as a "search for a Transcendental Empiricism," together with the claim that, for Deleuze, philosophy is either dialectical or empiricist, "according to whether the difference between concept and intuition...is taken to be a conceptual or a non-conceptual difference." 3, Constantin V. Boundas' Introduction to Empiricism and Subjectivity, Gilles Deleuze

In his quest for the pure perception (the *sentiendum*), Bergson breaks with the philosophic tradition which had assigned light to the mind and conceived consciousness as a searchlight summoning things up from their essential darkness. Unlike phenomenology, which remained faithful to this tradition, Bergson's vision solicited things in the context of their own luminosity. As for consciousness, instead of being the light of the old image of thought, it is, for Bergson, an opaque blade without which light would go on diffusing itself forever, never reflected and ever revealed. Deleuze subscribes to all these claims and also to Bergson's characterization of conscious perception as the object perceived, *minus* the aspects of it which do not interest the perceiver. Bergson and Deleuze, therefore, join hands in their demand that consciousness be constituted." 5, Constantin V. Boundas' Introduction to Empiricism and Subjectivity, Gilles Deleuze

"...the textbook definition of empiricism, which attributes to experience the origin and the source of validity of all possible knowledge, is, in fact, an answer without a question...Knowledge is no primary. Deleuze reminds us that Hume was primarily a moralist, a historian, and a political philosopher who placed his epistemology in the service of these concerns. Knowledge is possible because our passions provide our ideas with associative links in view of our actions and ends... experience is not unambiguously constitutive. For if by "experience" we mean atomic and distinct perceptions, the relations which associate these perceptions to each other, creating thereby an aura of belief and anticipation, cannot be accounted for. This is because, in the opinion of Deleuze, Hume views relations as the effects of the principles of human nature..." 6, Constantin V. Boundas' Introduction to Empiricism and Subjectivity, Gilles Deleuze

"A more helpful definition of empiricism, in Deleuze's estimate, must respect the irreducible dualism that exists between things and relations, atoms and structure, perceptions and their causes, *and also* relations and their causes. Viewed from this vantage point, empiricism will be the theory of the externality of relations, and conversely, all theories which entail the derivation of relations from the nature of things would be resolutely nonempiricist....Relations are the effect of the principles of human nature, and the latter, as we shall see, constitute the subject at the same time that they constitute relations.

Thus, Deleuze's essay shows empiricism to be marked by an irreducible dualism between things and relations, and claims to capture thereby the sense of Hume's dual strategy of atomism (the different, the disparate) and associationism (*mise en serie, parataxis*)....As long as the mind is a collection of atoms in motion, and mover and motion indistinguishable from each other, and as long as the mind is a collection of atoms in motion, and mover and motion indistinguishable from each other, and as long as the mind can be likened to moving images without a frame to restrict their movement, Hume can easily show that atomism is not a sufficient condition for the constitution of a science of humanity...

...Before the constitution of the Subject, no principle of organization rules over the mind. Only the indivisibility of impressions interests Hume, because it licenses his principle of difference and guarantees that the only constants of the mind will be indivisible atoms. It follows, argues Deleuze, that empiricism is not a philosophy of the sense but a philosophy of the imagination..." 7, Constantin V. Boundas' Introduction to Empiricism and Subjectivity, Gilles Deleuze

Of course, difference alone does not make an empiricist philosophy: difference and repetition are required to relate to each other chiastically. From a host of differential perceptions, a subject is born inside the given, and the imagination is transformed into a faculty...particular relations and actual subjects require concrete and different circumstances as their sufficient conditions. Circumstances define passions and give direction to interests because affectivity and circumstance go together." 8, Constantin V. Boundas' Introduction to Empiricism and Subjectivity, Gilles Deleuze

Ultimately, Deleuze's choice of empiricism amounts to a choice calculated to displace dialectics. The principle of difference that Deleuze locates in the heart of the Humean text prevents the closure threatened by dialectical sublation. Hypotactic subsumptions are replaced by paratactic conjunctions and arborite constructions give way to the strategy of the AND. Repetition—time and also habit as repetition—holds the paratactic series together, making possible their convergence and compossibility as well as their divergence and resonance. Difference and repetition displace the dialectical labor of the concept and thwart the mobilization of negation for the sake of allegedly superior synthesis.

The choice of empiricism is nothing less than a choice for a critical but nontranscendental philosophy. Transcendental philosophy, says Deleuze, beginning with a methodologically reduced field from which it derives essential certainty, asks how there can be a given, or how a subject can give itself the given. But Hume's empiricism asks how a subject can be constituted inside the given. The subject here is a task which must be fulfilled. In the process of fulfilling this task, empiricism generates a critique of rules by means of rules: extensive rules are criticized and rectified through the application of corrective rules." 8-9, Constantin V. Boundas' Introduction to Empiricism and Subjectivity, Gilles Deleuze

invent always in concrete circumstances. The anticipatory and inventive subject will dot Deleuze's writings, without exception, although later, anticipation will be called by other names ("repetition", "absolute memory"), and invention will acquire its own synonyms ("assembling," "becoming on a line of flight," "becoming-other," etc.). Deleuze will never waver in his conviction that only empiricists have the right access to the problem of subjectivity. Nonempiricists always endow their transcendental fields with individuality and personality, that is, with subjective Selfhood and personal Otherness, replicating thereby the empirical domain at the very moment that they allege to be in the process of grounding it. Empiricists, on the contrary, begin with the mind as a theater without a stage; they begin with the mind as delirium, contingency, and indifference and strive to understand how a mere collection of images can ever become a system. How can the mind become a subject? How can it become a human nature? Deleuze-Hume's answer is that the mind becomes a subject, that is, an entity capable of believing, anticipating, and inventing, as the result of the combined effects upon it of the principles of human nature. These principles, whether as principles of association or as principles of passion, pursue a selective and corrective course: they select impressions of sensation, designate them as candidates for association, and, on this basis, they constitute impressions of reflection. In the case of cognition, the principles of association—contiguity, resemblance, and causality—designate impressions and organize the given into a system, bringing thereby constancy to the mind and naturalizing it. They form habit, they establish belief, and they constitute the subject as an entity that anticipates." 14-15, Constantin V. Boundas' Introduction to Empiricism and Subjectivity, Gilles Deleuze

For Deleuze-Hume, therefore, subjects affirm more than they know, and transcend their partiality in their moral acts; they believe, as this allows them to infer one (nongiven) part of nature from another which is already given; and they constitute ethical totalities by inventing institutions which nature does not provide." 15, Constantin V. Boundas' Introduction to Empiricism and Subjectivity, Gilles Deleuze

"Time was initially introduced by Hume as the structure of the mind; but the subject, formed by the habit inside the mind, is the synthesis of time. The mine was succession; the subject is now *duree* and anticipation. The anticipating and inventing subject constitutes the past which weighs on the present, making it pass, while positing the past as the rule for the future. Time as the constitutive force of subjectivity, responsible for the bending and folding of the given and the formation of interiority, is indeed intensive.

The same braiding of intensity and extension is discovered by Deleuze in the complex relations that Hume assigns to the principles of association and passion: passions require the association of ideas, but on the other hand the association of ideas presupposes passions. The understanding reflects on our interest and socializes passion; but passions also give a disposition, an inclination, and a

direction to the association. Ultimately, though, the relations between epistemic association and inclining passion are weighted in favor of the intensity of the passion, since there would be no association of ideas without the tendency-creating passions. Associations without passions are blind, but then passions without associations would be empty. The weight of this Humean move is not lost on Deleuze: it explains why no theory of subjectivity can be successful if it relies on the cognitive subject only. The problem can be correctly raised only at the level of practice, and the issues surrounding subjectivity cannot be dissociated from the imperatives of experimentation and struggle." 17, Constantin V. Boundas' Introduction to Empiricism and Subjectivity, Gilles Deleuze

"Deleuze will then reiterate Hume's position which asserts that subjectivity acquires its form through the principles of association while it is individuated through the principles of passion. Affectivity activates a tendency of the subject making her want to identify with the effects of her action in all cases where these effects are the results of the means chosen. Once again, therefore, subjectivity is essentially linked with practices, for only a mind endowed with ends, and relations corresponding to these ends, can be a subject." 17, Constantin V. Boundas' Introduction to Empiricism and Subjectivity, Gilles Deleuze

These reading notes were taken while researching source material and conceptual frameworks of potential use to *social interaction design*, an approach I'm developing for use in the development and design of social software, interaction tools, communication technologies and their applications.