ETHNOGRAPHY, OPERATIONS, AND OBJECTUAL PRACTICE

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This paper raises issues around commercial ethnographic praxis and its relationship to social and cultural theory. Michel de Certeau's theories around everyday life practices and Karin Knorr Cetina's concept of postsocial objectual practice are juxtaposed in order to explore how commercial ethnographic practice might seriously engage with theory and transcend some of the assumptions that currently constrain its application within industry.

INTRODUCTION

In thinking about products and services in relation to people there appears to be much at stake that lies outside the traditional scope of design research – gender, macroeconomic, and ecological factors come to mind. From an ethnographically-based perspective, further considerations necessarily come into play when critically assessing the contribution of design research beyond that of a highly under theorized, emergent subset of business practices. This paper is an initial attempt at a theoretical intervention into the relatively field of commercial ethnographic practice. Ultimately, it is simply an effort to start a conversation among its practitioners by problematizing the scope and approach of this new application of social science. This interrogation of commercial ethnographic practice is facilitated through an examination of the common theoretical ground between the social historian Michel de Certeau's (1984; 1998) notion of operations and cultural anthropologist Karin Knorr Cetina's (1997; 1999; 2000, 2001) theory of objectual practice. The points of convergence that emerge between the work of these two theorists provides the field of commercial ethnographic research with a perspective into everyday, object-centered sociality that is intended to provide one example of how this type of ethnographic work can be theoretically informed.

De Certeau's contribution is in his refusal to endorse the opposition of high culture versus popular culture and by extension the dichotomy of creative art versus mass production. Over the course of his research, he analyzed what he called operations or silent procedures that people perform with designed artifacts, institutions, language, and other cultural objects. What was at stake for him is the very particular ways people use some readymade objects and engage in common practices, the way they organize their private space, their workplace, the way they practice their environment and the space available to them such as kitchens, malls, streets, airports, train stations, and neighborhoods. His choice of research sites allowed de Certeau to focus his theorizing on the ordinary practices of people's everyday life experiences. He replaced the presupposition of passive mass consumption of objects and products with the notion of large-scale, anonymous creativity by ordinary people. For de Certeau every person can be regarded as a *producer* through the art of recycling objects, adapting and transforming Heidegger (1962) calls "ready-at-hand" instruments or products, objects that become extensions of ourselves.

On its face, Knorr Cetina's work appears quite different. She begins with proposition that this century has seen the rise and increased centrality in social practice of what she calls knowledge objects – objects that deeply engage their subjects. The onset of modernity resulted in an initial buoying of state sponsored sociality with the development and expansions of the welfare state. This enhanced sociality was accompanied by an increased reliance on social explanations (for example collective causes for accidents and the rise of class action lawsuits). Recent decades, however, have seen the retraction of welfare state, the emptying out of primordial social relations, and the narrowing of social imagination and the onset of postsocial relations. While the Internet and to a lesser extent ubiquitous computing has supported minor new forms of sociality, this void has been increasingly filled with a growing reliance on objects in the social world.

According to Knorr Cetina, objects are increasingly replacing and mediating human relationships, especially in what she calls knowledge societies. While much of her work focuses on the behaviors in and around the objects central to experimental laboratories and financial markets and other complex phenomena, Knorr Cetina's nuanced treatment of object relations has obvious implications for the commodities, services, and experiences that we consume. For Knorr Cetina, social relations appear to have become less social in the original sense of the term. A close examination of her work in this area reveals this loss of the social as a less pessimistic position than it might appear at first blush.

Commercial ethnography, as a sub-discipline if one can call it that, is for the most part theoretically unproblematized and perhaps that is the way it should remain. The discussions that do take place tend to focus on methods and ethics. Maybe theory should not have a place of prominence in this emerging enterprise – perhaps not even middle range theory that modestly starts its theorizing with delimited and empirically-based aspects of social phenomena, as advocated by Robert K. Merton (1968). Theory in social science tends not to be "results oriented" in ways that meet the expectations of capitalism for return on investment. This is not a complaint. It is simply a matter of what I see as fact. But as practitioners, we all know that theory stealthily creeps it way back into our work, sometimes uninvited, edging our interpretations this way, pushing us towards that conclusion, even if it is often invisible to colleagues and clients alike. I believe that if the enterprise of commercial ethnography is to grow, mature, and advance beyond a research method (like focus groups) used by economic and political concerns, a wider range of theory will have to be more explicitly and consistently integrated into what we do.

For commercial ethnographic research to result in better products, services, experiences, and systems it is not enough to produce better versions of these things in the conventional sense. For social scientists (and designers, developers, product managers, and senior management) the question should become: how can we produce artifacts so they radiate the degrees of freedom necessary to enhance the self-invention that de Certeau observed given the increased mediation of sociality through objects? Or phrased slightly differently; how can an object cultivate a social relationship with the consumer that goes beyond attributes like affordances, brand, and interactivity? Over the years I have put this only slightly ridiculous question in various forms to a number of unfortunate fellow practitioners only to hear replies like "that's a trick question" or better, "are you insane?"

But I find this proposition too compelling to drop and think it's important to attempt to re-articulate the logic of operations and objectual practice through a commercial, ethnographic frame of reference that takes recent developments in cultural and social theory seriously as opposed to treating them as a strictly academic, unrelated, and irrelevant endeavor. The increased importance of design within business planning and strategy and the rapid appropriation of ethnography by design and

market research provides a unique historical moment – one that is already closing – for commercial ethnographers to articulate the importance of theories that explore areas of human behavior usually glossed over by conventional research currently carried out in the for-profit world by interests in the United States and Western Europe. This paper tries to take a small piece of this larger and more complex set of structural relations by asking if the cross pollination between the two seemingly unrelated theories of de Certeau and Knorr Cetina can provide commercial ethnographers with the beginning of a basis for enhancing adoption and adaptability in design or at least thinking about its role differently? Perhaps more critically, it is important to ask whether this direction comport with the business imperatives that tend to favor hyper-consumption and individuation, apparently inherent in the production of goods and development of services?

DE CERTEAU

The first section of this paper explores a small number of de Certeau's ideas about cultural consumers. Specifically, I examine his understanding of current socio-economic conditions, the idea of productive consumption, strategy and tactics, and embodied behaviors like walking. The latter serves as a model for thinking about what consumers' make and do with objects and ideas they encounter. These concepts provide the context for thinking about opportunities for leaving consumers space for sociality and self invention as well as frame the relevant work of Knorr Cetina in the subsequent section.

In his discussion of everyday practices performed by people as they move through their lives, de Certeau methodically peels back layers of assumptions and beliefs about the modern conditions of our existence in order to set the stage for analyzing how we get by in the world – that is, the swarm of acts that comprise our being in the world. This is critical move is central to his project; nothing about our understanding of human thought, activities, and behavior is taken for granted in his analysis. Exactly the same process needs to occur in commercial ethnography. Needless to say, this constitutes a radical departure from the place where most discussions and opinions on commercial ethnography are situated. Rather than compartmentalizing this epistemic rupture as beyond the legitimate scope of commercial ethnography, a more productive move is to leverage his critique of established modes of knowledge production in our own field. This seems a necessary, if difficult first step.

In his introduction to everyday practices, de Certeau argues that our lives are dominated by production that is "…rationalized, expansionist and at the same time centralized, clamorous, and spectacular" (1984: xii). It is important to note that this is not a value judgment on his part. These, he argues, are the objective conditions in which we live. While his language lacks precision, the general thrust of this claim is undeniably true, especially for developed and emerging economies. It is apparent in things as diverse as recipes, arms negotiations, product manuals, and car designs. As consumer-citizens we reap vast benefits from this mode of socio-economic organization. But this trade-off, while worth noting, is not his primary concern. De Certeau wants to understand what people *make* and *do* when interacting with objects, places, representations, and environments in spite of (and because of) this particular mode of production. This is a starting point that precedes current heuristics of commercial ethnography such as user needs, emotion, meaning, and experience.

To help us move beyond the heuristics of commercial ethnographic practice, it is worth reemphasizing a point that de Certeau, as have other social scientists, makes about individual experience:

> Analysis shows that a relation (always social) determines its terms and not the reverse, and that each individual is a locus in which an incoherent (and often contradictory) plurality of such relational determinations interact (1984: xi).

The basic but necessary point is that our experience of the world is essentially contingent, relational, and disjointed. The terms of our relations play out in concert with our interactions with other people like our co-workers, institutions like supermarkets, spaces like city streets, and texts such as television which are cast in a particular socio-economic context. In articulating the idea of a person as a locus of things, processes, and representations, de Certeau privileges our acts of productive consumption or secondary production – a far less spectacular and clamorous form of production. What is the delta between what has been produced and the frequently unselfconscious secondary production hidden in the process of its consumption? What can we learn from that secondary production's logic? What can this secondary production tells us about our relationship with objects, environments, and services that goes beyond the impoverished imagination of design research? The concept of secondary production or productive consumption within a rationalist socio-economic order that is often experienced incoherently implies an unusual user perspective but one worth exploring.

De Certeau's idea of productive consumption is different from what some social scientists have labeled agency in theorizing how people consume things – the basic idea that people reappropriate and reinterpret objects for their own purposes. Giddens (1984) developed his version of the analytic category of agency in his theory of structuration. In his formulation he distinguishes between discursive and practical knowledge, recognizing actors (or agents) as knowledgeable and reflexive. That is, they know what they are doing and orient their behavior in relation to structures. Moreover, their knowledge is reflexive and situated and habitual use or practice (e.g., consumption) becomes institutionalized. In this conception agency is articulated in relation to structures. Michel Foucault's and Pierre Bourdieu's ostensible contributions to the theory of everyday practice are also found wanting. Foucault analysis of micropolitical techniques stops just at the point where de Certeau's interest begins; what people make or do when confronted by the instruments and effects of power. Similarly, de Certeau finds Bourdieu's efforts to frame practice in relation to socioeconomic rationality and as largely unconscious unconvincing.

De Certeau's approach is more nuanced and explicit. For example, he is interested in consumption at the level of behavior (watching television) and representation (the meanings or "legends" communicated through television) but more importantly he is interested in what the cultural consumer "'…makes' or 'does' during this time and with these images" (1984: xii). It is doubtful that most of the practices that people make or do become institutionalized in the way that Giddens imagines – they are often unselfconscious (as opposed to unconscious), too muted, too fleeting, a murmuring of the crowd, a remainder with regard to where design research typically places with emphasis. These operations are a way of thinking fused with a way of acting: "…an art of combination which cannot be dissociated from an art of using" (1984: xv). This embodied, multi-modal way of operating in the world that I will call "thinking-doing" is usually what commercial ethnographers are called upon to try to parse, decontextualizing elements and linking them back to business assumptions about relevant aspects of human thought and behavior.

Situating our fused thinking-doing in a society that is overwhelmingly functionalist, productivist, and over-determined beyond our comprehension – a world of our own making but exterior to us nonetheless – means that we exist in conditions that are primarily defined and occupied by systems of production. When consumers use, do, and make, it is within the contexts of multiple, defining systems

that are not specifically designed to leave consumers any "…place in which they can indicate what they make or do with the products of these systems (1984: xii). The absence of degrees of freedom is marginalizing and yet all of us engage in acts of creative appropriation at the very point where practices ceases to have their own language – where they are unnamed, falling outside the scope of our rationalist grid or understanding and ordering. Reliance on this rationalist grid has an undeniable logic when it comes to efficiently or not so efficiently designing products but it unreflexively forecloses any potential infusion of the language and art of consumption into our closed systems.

Two concepts developed de Certeau can help us think more deeply and critically about how we might break open the closed circuit of design research. The first of these is what he refers to as a strategy.

> A strategy is "…the calculus of force-relationships which becomes possible when a subject…(a proprietor, an enterprise, a city, a scientific institution) can be isolated from an 'environment.' A strategy assumes a place both conceptual and physical that can be circumscribed as proper…serv[ing] as the basis for generating relations with an exterior distinct from it (competitors, adversaries, 'clienteles,' 'targets,' or 'objects' of research) (1984: xix).

Strategic things have carved a temporal and cognitive place out for themselves and generally set the terms of their own conditions and interactions. Designed artifacts, objects (commodities), and spaces are the material and congealed instantiations of strategies, having both a physical and conceptual place. But isn't this precisely the object of design research and commercial ethnography, to render the strategic in terms that are more user friendly? This is not to suggest that products should not have a strategy, simply that strategies might be less totalizing in character. Given de Certeau's account of strategy in our experience of social relations, the implications of designed user friendliness now seem more like a filter that captures isolated fragments of our making and doing and distills them back into a strategy through the productivist logic of place.

Tactics stand in contrast (and alignment) to strategies in that they are dependent. A tactic is also a calculus, an interaction that has no place in and of itself.

> The place of a tactic belongs to the other. A tactic insinuates itself into the other's place, fragmentarily, without taking it over in its entirety, without being able to keep it at a distance. It has no base where it can capitalize on its advantages, prepare its expansions, and secure independence with respect to circumstances (1984: xix).

Despite exhibiting continuity and permanence in some cases, a tactic exists only in relation to the operational conditions of existence provided by a strategic place and tends to be the purview of the consumer. Everyday practices like reading, shopping, walking, cooking, and brushing teeth are tactical. Translated into the language of commercial ethnography, tactics are in some respects equivalent to user behavior or needs seen from a very different vantage point. In contrast, strategic places are frequently muting and totalizing simply because of the necessary conditions of their own existence – they emerge into the world from the stronghold of a place expressed institutionally, socially, and culturally and thus organize tactical expression.

According to de Certeau we have not always lived in a world dominated by tactics and strategy but it is important not to mistake his assertion as a form of nostalgia. He dispassionately describes the breakdown of local stabilities, changes in the way people read (1984: 166-169), and the receding practice of orality (1984:132-139) as markers for the emergence of strategy and tactics through the centuries. These and other factors have contributed our current conditions in which society is "…no longer fixed by a circumscribed community, [where] tactics wander out of orbit, making consumers into immigrants in a system too vast to be their own, too tightly woven for them to escape from it" (1984:xx). The language of this passage goes to the heart of the matter. Consumers are immigrants. We visit, touch, cling to, but never really own or are liberated by objects, processes, and spaces in ways that transcend rationalist consumption. But this is not to say that we are passive. And although immigrants, our tactical practices with regard to reading, for example, facilitate "…the drift across the page…the improvisation and expectation of meanings inferred from a few words, leaps of written spaces in an ephemeral dance" (1984: xi).

Enunciating Bodies

Relying heavily on linguistics – Wittgenstein provides the philosophical blueprint for his enterprise – in articulating his theory of tactics, de Certeau uses the metaphor of enunciations occurring in different registers and pragmatics to emphasize the temporal and context dependent character of everyday practice. He theorizes walking as a form of rhetoric and indeed most forms of user interaction can be theorized as rhetorical expressions: "[t]he art of 'turning phrases finds an equivalent in an art of composing a path" (1984:100). Walking, as is true with other everyday practices, forms a kind of poem – in this case on the sidewalk, around the corners, up the stairs. Walking is neither foreign to the spatial organization of an urban environment nor is it fixating conformity. In a key example, de Certeau again resorts to language to describe how walking enunciates. He use the concept of synecdoche and asyndeton to describe how walking manipulates spatial organizations. Synecdoche consists in representing a larger entity with a piece or fragment of that entity (e.g., head is taken for cattle). Asyndeton is the omission linking words like conjunctions and adjectives (e.g., be one of the few, the proud, the marines). Both these processes are present in a range of consumer interaction and use and should be designed for. They create a sort of swelling and shrinking phrasing on the part of consumers as they engage with objects, processes, and spaces; "[a] space treated in this way and shaped by practices is transformed into enlarged singularities and separate islands" (1984:101). Stand in any plaza and watch how people use the space, observe someone as their hands move across a mobile phone, watch a child pretending to comfort a doll and you will see the tactical oscillation between these two poles articulated in various ways.

But if walking is a manipulative act on the part of the user, it is also an expression of a system of urban planning, a normative discourse. Similarly, lip gloss, the automobile, processed food, glasses, and clothes can be regarded as "…instruments through which a social law maintains its holds on [our] bodies…regulat[ing] them and exercis[ing] them" (1984:147). The process of correcting, removing from, and adding bodies appears to be an endless means "…by which a society represents itself in living beings and makes them its representations" (1984:147). Our bodies and interactions are telling a code, we believe and we act, we are practitioners of the "real." Despite the commonsensical and self-fulfilling character about how we decide what are the right things to do or have done to our bodies, our behavior, according to de Certeau, is not speech that "does not know" what it says. That turn of phrase, speech or behavior that "does not know" what is says, is trope that he returns to again and again in order to destroy the idea that our interactions with objects and systems are thoughtless and unarticulated as opposed to rationalist, technocratic discourse. They are articulated in the doing, in the

moment, without a discourse to create a strategic place and constitute a vast reserve of social and self expression.

In this section I have examined a very limited number of concepts from de Certeau's work in order to provoke thinking around the implications of everyday practices for design and commercial ethnographic research. While the concepts of fused thinking-doing, strategies, tactics, place, and rhetoric provide us with different ways for thinking through the contributions of commercial ethnographic research, they are also incomplete in important ways. But after all de Certeau's intention in writing "The Practice of Everyday Life" was simply to create the possibility of discussion and not produce the definitive account of these concepts. To complicate matters even further, in discussing the key concept of tactics, de Certeau suggestively remarks that "[t]hese ways of reappropriating the product-system, ways created by consumers, have as their goal a therapeutics for deteriorating social relations and make use of techniques of re-employment in which we can recognize the procedures of everyday practice" (1984: xxiv). Although not explicitly stated in terms of a "therapeutics" Karin Knorr Cetina's work on objects, sociality, and the postsocial condition provides insight that sheds light on this very suggestion of compensatory transformation by de Certeau.

KNORR CETINA

More sociologically than linguistically inclined, a starting point for Knorr Cetina's work on objects and sociality stems from the observation that practice theory has tended to neglect creative and constructive practice in favor of an idea of practice as recurrent, specifiable, and schematized preferences and prescriptions. Here she joins in de Certeau's critique of Bourdieu, by arguing that the focus on habitus and rule-governed behavior obscures important aspects of the social life of artifacts, objects, and systems. Like de Certeau's everyday practices, object-centered sociality is an active process in which people insinuate themselves into object worlds through specific practices. While many other authors have sought to analyze aspects of sociality with respect to objects, particularly in terms of consumption and identity (Lury 1997, 1998; Slater 1997; Appadurai 1986), Knorr Cetina's work stands out for its empirically grounded elaboration of the processes and mechanisms of object-center sociality. This is precisely the piece missing from de Certeau's account of tactical reappropriation by consumers.

Like de Certeau, Knorr Cetina argues that the ways that we inhabit the world and conceive of our relation to it have changed radically over time. The emergence of a multiplicity of practices associated with literacy, science, medicine, globalization, and other institutions has emptied out previous forms of sociality, creating a "postsocial" society. The existence of postsocial relations does not mean that sociality has completely receded from our lives. On the contrary, current articulations of social principles and structures have simply broadened to include objects. For Knorr Cetina the receding of more local (human) social relations has produced two parallel processes: increased individuation and an "expansion of object-centered environments which situate and stabilize selves, define individual identity just as much as communities or families used to, and which promote forms of sociality that feed on and supplement the human forms of sociality" (1997:1). Objects that act as sources of the self and provide relational intimacy are simply another form of sociality.

It is important to note at the outset that much of Knorr Cetina's focus on object-centered-sociality is in the context of what she identifies as expert or epistemic cultures. Epistemic cultures are "…amalgams of arrangements and mechanisms…in a given field [that] make up how we know what we know…[and] create and warrant knowledge" (2001:1). She argues that we live in a world "of increased reflexivity mediated by expert systems…[and] that today's individuals engage with the wider

environment and with themselves through information produced by specialists" (2001:177). The expert systems are usually productivist in character and have a proper place from which to capitalize on their gains. It hardly matters whether we are talking about physicists refining hypotheses like supersymmetry or Dr. Phil dispensing advice to the emotionally troubled. The products of epistemic cultures, like computer science, are less important than the processes and knowledge-related forms of embeddedness themselves. This represents a departure from de Certeau's view of everyday practices constituted by the cultural consumer making-doing and tactically renting space in the congealed objects, systems, and environments of strategic knowledge, be it a skyscraper, written language, or a Dodge Dart. The discharge of knowledge relations into society "…has become constitutive of social relations" (Knorr Cetina 1997:8). It is, increasingly, how we are social.

Knorr Cetina's focus on creative practice and de Certeau's concern with fused thinking-doing raises an obvious question: to what degree can practice in relationship to designed objects, processes, and environments support transformation and invention? De Certeau is not decisive on the point of transformation – for him the consumer's interaction is almost a running battle as much as it is a poem. In discussing reading as a kind of poaching, he forcefully argues that it is incorrect to assume that "…consumers settle down…[that] the only freedom supposed to be left to the masses is that of grazing on the ration of simulacra the system distributes to each individual" (1984:165-166). But are the enlarged singularities and separate islands that characterize what people make or do an example of transformative practice? Does the wandering through a mall as one might wander through a text change either? Again, these tactics employed by cultural consumers are temporal, lacking a proper place. By de Certeau's own logic the practitioner cannot "…keep what it acquires, or does so poorly" (1984:174). Perhaps transformation does not depend on the literal acquisition of cultural resources and that the character or mode of the relations themselves can support transformation and invention.

Knorr Cetina analyzes object-centered sociality from the perspective of "…characterization[s] of practice [that] might make the notion more dynamic and include within it the potential for change" (2001:175). In order to do this she explores the role of objects in epistemic or expert cultures with the goal of unpacking the idea of an expert and technical competence. The primary characteristic of object relations in these cultures is dissociation, forcing the subject (self) to stand apart from the object (work) through modes of relating that are characterized by interruption, reflection, and abstraction. Paradoxically this standing apart is precisely what allows the subject to deliberately and reflexively loop her cognition and consciousness through the object. The loop is reflexive in that this form of immersive relation permits the object to "speak" back to the subject – to reveal itself. This kind of creative or constructive interaction occurs when practice becomes non-habitual or non-routine and both subject and object are potentially modified, articulated, and constructed.

This emphasis on the creativity of non-routine practice appears to stand in contrast to analyses of interactions with commodities and instruments that simultaneously posit more performative and unselfconscious but nonetheless goal-directed activity. This emphasis seems to deviate from de Certeau's thinking in that it is precisely the normative, routine-inducing systems and structures that serve as incubators for the cultural consumer's silent procedures. Do objects, processes, or spaces that are instrumental and/or commoditized fail to provoke the kind of sustained or productive reflection required for sociality? According to Heidegger instrumental objects are "ready-to-hand," meaning they have "…the tendency to disappear while…using [them]" (Knorr Cetina 2001: 180). They become an unproblematized and uncreative extension of us. In contrast to Knorr Cetina dismissal of instruments and commodities from the realm of creative practice, some authors like Celia Lury speculate modern conditions of production and technology have redrawn the lines between self and object and that

commoditized objects define us by what we do with them in the form of "performative self understandings" and "experimental individualities" (Lury 1998). This view of the prosthetic extension of the self into society although new to cultural studies has it origins in the work of Emile Durkheim and Marcel Mauss and it further augments de Certeau's characterizations of cultural consumption.

In fully understanding the centripetal force objects can play, a number of different dimensions of the phenomena merit investigation including, "…personal object ties, object‑centered traditions and collectives, and object‑created emotional worlds" (Knorr Cetina 1997: 9). While a range of objects might amenable to this analytic framework within the context of non-routine practice, the scope of Knorr Cetina's analysis is limited to object relations centered around what she calls knowledge objects. She argues that these sorts of objects are fundamentally different from commodities and instruments – an argument that I do not find completely convincing and which she qualifies in her most recent articulation of objectual practice (2001: 187). A strict view of knowledge objects associates them with scientific investigation (e.g., protein synthesis) but recent work has extended the notion of what a knowledge object is. For example, Ewenstein and White (2005/06) examine the role of visual representations of an epistemic object in the form of an architectural project to create a new Herbarium in the Royal Botanic Gardens at Kew. Winroth (2003) looks at the securities market in the Stockholm Stock Exchange. Knorr Cetina herself, in a more recent work, analyzes foreign exchange market activity at a Swiss bank (Knorr Cetina & Bruegger 2000). Granted these types of knowledge objects are deeply complex but the concept can also be profitably extended to computers, software, and the Internet (Turkle 1984, 1995) and, as I will argue at the conclusion of this paper, other less complex objects.

An essential characteristic of knowledge objects, Knorr Cetina argues, is their lack of completeness and instability (1997:10). These objects present their subjects with an ontology that is continually unfolding as they are explored, mapped, watched, and analyzed. They are processes and projections as much as they are things and possess a characteristic non-identity with themselves; they are never fully attained. Provisional representations, partial understandings, or stand-ins provide a presence and pathways into the object world but there always remain significant absences – in a sense they are present and absent by turns. This instability of these objects is the inverse to the fleeting and rhetorical relationships of de Certeau's unselfconscious cultural consumers. But this is only one side of the equation, the mode of engagement on the part of the subject is equally important. Knorr Cetina employs Lacan's account of the mirror stage to argue that interactions with knowledge objects are accompanied by a "structure of wanting" on the part of the subject which in turn engenders mutuality or reflexivity. For Lacan, the mirror stage establishes the ego as fundamentally dependent upon external objects, on an other.

Knorr Cetina takes this idea and argues that structures of wanting are always directed at an empirical object that can never be adequately describe through language. Thus rather than eliminating lack, languages and models tend to exacerbate it. This is true of knowledge objects: "[i]n one sense one could say that objects of knowledge structure desire, or provide for the continuation of the structure of wanting" (1997:13). By introducing Lacanian theory, part of what Knorr Cetina is trying to do (aside from asserting that the libido plays a role in object‑centered sociality) is foreground the robust, reflexive, and experientially-based object relations that can occur around a knowledge object. This goes well beyond mere positive emotional associations in that object-centered sociality is open dynamic and allows for a "…variety of conceptions and implementations" as well as a mix of sustaining attachments to an object (1997:14).

This section has explored several concepts of Knorr Cetina's work, specifically the notions of postsociality, knowledge objects, and structures of wanting. I have also tried to demonstrate that concepts represent productive points of contact between her ideas and de Certeau's. In this final section I want to raise some practical implications provoked by the comparison of these two theorists particularly in areas where they diverge. This divergence, however, is more suggestive of complimentarity than of incommensurability.

IMPLICATIONS FOR COMMERCIAL ETHNOGRAPHIC RESEARCH

An initial point of difference between the two theorists, with implications for theorizing around sociality and ethnographic praxis, concerns their differing accounts of the consequences for the breakdown of local stabilities and local socialites. For Knorr Cetina the flip side of increased individualization resulting from the emptying out social relations is growing practices around object centered sociality. These practices tend to occur within epistemic, white collar cultures although not exclusively so. De Certeau casts his net into a different social stratum, concerning himself with the ordinary man, "a ubiquitous character, walking in countless, thousands on the streets" (1984: dedication). This has implications for the modes through which the two groups develop objects relations and the relevance of sociality to their respective practices.

Knorr Cetina's subjects tend to lose themselves in knowledge objects through a mutuality of wants on the part of the subject and lacks in the object but it is something the subjects have to work to create, there is frequently significant labor involved in producing that mutuality (1997: 17). Can we attribute the same investment of labor on the part of the desiring subject when it comes to commoditized objects? I think it can be argued that to a lesser degree this is true. There is often an expenditure of labor leading up to, during, and after the act of consuming what Knorr Cetina generally regards as commodities or instruments. For example, researching the purchase, mastering the interface, and conspicuously using a cutting edge mobile communication device can involve significant labor. Granted such a device might be classified as an instrument or even a commodity but when acknowledging the work done in affective computing, Knorr Cetina also admits that emerging technologies are producing objects of such complexity that they may be amenable to the analytic framework she proposes.

The question of sociality in epistemic cultures and everyday practices is one of degrees as acknowledge by Knorr Cetina (2001:187). The increasing availability of complex commodities along with the development of continually changing versions has created a class of products she calls "epistemic everyday things" (2001:187). Examples might, include sophisticated sports equipment, software, computers, mobile computing devices, video and computer games, and the Internet. While this list does not contain reading and cooking, it is evidence that object-centered sociality exists outside of expert cultures. The difference between traditional epistemic objects and epistemic everyday things perhaps has less to do with their complexity than with the ability of the object to key into a structure of wanting on the part of the consumer and provide some absences or blank spaces.

De Certeau's murmuring masses also tend to lose themselves – but tend to do so literally in systems in which they are immigrants. Yet through their acquiescence they take possession and create changes and impressions. De Certeau compares consumers to renters who drive interaction with "…their acts and memories…their own history: as do pedestrians, in the streets they fill with the forest of their desires and goals" (1984: xxi). The difference here is, to some extent, the relative power granted to the subject in a high energy physics lab as opposed to a city street or at home opening a new

cell phone. In the physics lab the subject might be said to have far more points of contact with their object, and perhaps, ultimately, more control over it. But I would argue that there are sufficient avenues of control available to cultural consumers in the context where everyday practices play out. After all would so many consumers throw away or never read the instruction manuals that accompany the products they purchase or refuse to read a map on the cusp of getting lost while driving if that were the case? One could argue that de Certeau's silent procedures are simply the slightly impoverished, commodity-oriented version of Knorr Cetina's object-centered sociality. But to argue that, in fact, no sociality inheres in everyday practices would be a mistake.

De Certeau talks about the tactical way cultural consumers insinuate themselves into objects, forms, and environments. In some respects, a classic confirming example of this may be William Whyte's study of small urban spaces (1980). Whyte employed classic ethnographic techniques and time lapse photography in an exploration of how people use urban space, particularly plazas in New York City. In delineating the essential elements for the successful use of urban space (sitting space, light, trees, water, elevation, proximity to foot traffic, etc.) he discovered that 101st street in East Harlem functioned as well as the highly frequented Seagram's Plaza in Manhattan. The obvious difference between the two examples is that the Seagram's Plaza was designed and 101st Street emerged from silent procedures. The key point here is that a number of Whyte's recommendations based on how people appropriate public space made it into the City's zoning and development codes, thus transforming both subjects and objects. This is a diachronic example of mutuality by proxy – the reflexive feedback loop that is so critical to Knorr Cetina's notion of object-centered sociality is there, it simply occurs at a social level, through generations, and across space.

Whyte's observations or people's use of small urban spaces also revealed the specific modes of consumption, the ways in which they unselfconsciously looped themselves through aspects of an environment (public space). De Certeau's model of enlarged singularities and separate islands (1984: 101) is precisely mirrored in Whyte's analysis: the concentration of people on the corners of steps, the avoidance of the center of large open spaces for encounters, the myriad groupings formed by its visitors. Using Whyte's work as an empirical example of de Certeau's theories also highlights an aspect of Knorr Cetina's theory that is underdeveloped. The absence of a meaningful discussion of physical and sensuous components of object-centered sociality, how the body might be engaged in conjunction with the mind potentially extends the range of ontological unfolding, especially for epistemic everyday things.

In trying to more explicitly apply some of de Certeau's and Knorr Cetina's thinking to the concerns of commercial ethnography, a few problems begin to emerge: can reappropriation and insinuation be designed into a product and how much engagement is too much? For a great number of product designers and developers transparent instrumentality is a highly desirable goal – the gold standard. Push the object into the background, lower the cognitive burden, and make things as simple as possible to interact with. In this regard, most products have followed the path of Heidegger's ready-to-hand concept as a model to be aspired to. Commodities are also expected to be stable and complete as opposed to possessing lack or continually unfolding. Can you sell things to consumers and develop services and environments that are never quite themselves while balancing the demand for reliability and predictability in other areas? Moreover, can the potential for meaningful reappropriation be designed into these things or is that a self-defeating act?

Ultimately, reappropriation will occur in any event and may even be designed into the next iteration a product at a simple level through the observation and distillation of unintended uses.

Consumers will always "turn phrases" within systems as readily as they will rigidly follow instructions. The scope of inclusion in a product's next iteration for unanticipated uses of things may increase as competition for resources grows. The degrees of freedom built into a product or experience has as much to do with its required resources as the way it is presented to the cultural consumer – the way it is conceived of in a productive, rationalist framework. The flipside of the question of reappropriation is the issue of product stability and is perhaps even more complex.

The British sculptor Richard Wentworth has explored the stability of objects through his film "Making Do and Getting By" and photographs (1987). For Wentworth "…[t]he real object…will not remain stable; even the most commonplace bucket, broom, chair or table, will conduct meanings that lie beyond appearance" (Warner 1994:13). In contrast, many products and services, at least the ones that commercial ethnographers are involved in, are essentially instrumental in character – they are a means to an end or ends. The addition of a lack or instability into a product or service would, from the perspective of human factors, usability, etc., seem to doom it to failure or worse, conceptual art. Products and services have a built-in elasticity in a way similar to Knorr Cetina's epistemic objects. A key characteristic of these objects is that they exist in multiple representative forms such as models, calculations, on-screen representations feeding into structures of wanting. The same could be said of objects in the world of commerce and labor. Plans, organizational charts, advertising, messaging, branding, and corporate identity are also simulacra that, to some extent, lead an existence independent from their object. It could be argued that the branding of commodities fulfills a similar role to the one Knorr Cetina's ascribes to sustained or "theoretical reflection" (1997: 10). In thinking about design, this implies the requirement for some level of cohesiveness in terms of how a subject understands interdependent representations but it also allows for flexibility (instability) if the object is designed at the level of experience, going beyond instrumental and/or cognitive dimensions.

In light of the demands for relative stability in many classes of products and experiences, designing in the capacity for non-routine behavior is arguably what sets some products and experiences apart in a very crowded marketplace. If de Certeau is to be believed, then commoditized objects, experiences, and environments are often the site of non-routine but logical behavior. That logic simultaneously conforms to the system in which it is articulated and lies outside or on top of it. Again, this behavior may not possess the systematic purposefulness of the lab environment, lacking a place, but the tactics employed can, as William Whyte's work demonstrates, produce transformation.

As noted at the outset, the goal of this paper is to raise a series of questions with regard to infusing theory into commercial ethnographic practice around issues of object-centered sociality. I have used the work of de Certeau and Knorr Cetina to explore the notion of cultural consumption that both appropriates and reflexively loops through everyday epistemic objects in order to think about the current limits of product, service, and environment design as well as the ways in which commercial ethnographic practice might transcend those limits. The recent focus by businesses on designing experiences as opposed to products or services represents a somewhat constrained effort in this direction. The effort is constrained precisely because the work, when supported by ethnographic data, generally organizes its thinking through congealed models like a hierarchy of needs, human factors, values, market segmentations, and user requirements. It fails to examine the subtleties of the particular modes through which we engage objects and spaces. This effort also ignores the accompanying productivist, socio-economic context creating the conditions of those personal but fundamentally social experiences. If ethnographic praxis is to having a truly meaningful impact at the level industry and consumption it cannot afford to engage in practices that create the same omissions.

REFERENCES

Appadurai, Arjun
1986   *The Social Life of Things: Commodities in Cultural Perspective*. Cambridge; New York: Cambridge University Press.

De Certeau, Michel
1984   *The Practice of Everyday Life*. Berkeley: University of California Press.

De Certeau, Michel, Giard, Luce & Mayol, Pierre
1998   *The Practice of Everyday Life: Volume 2, Living and Cooking*. Minneapolis: University of Minnesota Press.

Ewenstein, Boris & Whyte, Jennifer
2005/06 Knowledge Practices in Design: The Role of Visual Representations as 'Epistemic Objects.' London: EBK Working Paper.

Giddens, Anthony
1984   *The Constitution of Society: Outline of the Theory of Structuration*. Cambridge: Polity Press.

Heidegger, Martin
1962   *Being and Time*. New York: Harper.

Knorr Cetina, Karin
1997   Sociality with Objects. Social Relationships in Postsocial Knowledge Societies. In *Theory, Culture and Society* 14(4): 1-30.

1999   *Epistemic Cultures: How the Sciences Make Knowledge*. Cambridge, Mass.: Harvard University Press.

Knorr Cetina, Karin and Bruegger, Urs
2000   The Market as an Object of Attachment: Exploring Postsocial Relations in Financial Markets. In *Canadian Journal of Sociology* 25(2): 141-168

Knorr Cetina, Karin & Preda, Alex, editors
2005   *The Sociology of Financial Markets*. Oxford: Oxford University Press.

Lury, Celia
1996   *Consumer Culture*. New Brunswick, N.J.: Rutgers University Press.

1998   *Prosthetic Culture: Photography, Memory and Identity*. London: Routledge.

Merton, Robert
1968   *Social Theory and Social Structure*. New York: Free Press.

Schatzki, Theodore, Knorr Cetina, Karin & von Savigny, Eike, editors
2001   *The Practice Turn in Contemporary Theory*. New York: Routledge.

Slater, Don
1997   *Consumer Culture and Modernity*. Cambridge, MA: Blackwell Publishers.

Turkle, Sherry
1984   *The Second Self: Computers and the Human Spirit*. New York: Simon and
            Schuster.

1995   *Life on the Screen: Identity in the Age of the Internet*. New York: Simon &
            Schuster.

Warner, Marina
1994   *Richard Wentworth*. New York: Thames and Hudson in association with the
            Serpentine Gallery, London.

Wentworth, Richard.
1987   *Richard Wentworth: Sculpture: 18th March to 12th April 1987: Riverside Studios
            London*. London: Riverside Studios.

Whyte, William
1980   *The Social Life of Small Urban Spaces*. New York: Project for Public Spaces.

Winroth, Karin
2003   Professionals in Investment Banks – Sharing and Epistemic Practice or an
            Occupational Community? Goteburg: GRI Report.