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Mapping the lines: An exploration of mobility and urban spaces amongst bicycle couriers.

Philip J. Boyle
University of Windsor

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**Mapping the Lines: An Exploration of Mobility and
Urban Spaces Amongst Bicycle Couriers**

**By
Philip J. Boyle**

**A Thesis Submitted to the Faculty of Graduate Studies and Research
Through the Department of Sociology and Anthropology
In Partial Fulfillment of the Requirements for The Degree of
Master of Arts at the University of Windsor**

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2004

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You may say my perspective is unaccredited, but in the face of clouds reflecting across a sea of steel surfaces... who can claim to be anything other than an amateur? Can anyone really be *authorized* to cast a net over all this? I don't think so.

- Travis Hugh Culley

The Immoral Class: Bike Messengers and the Cult of Human Power

ABSTRACT

Recent perspectives in social theory have highlighted the need for space to be understood as active in the patterning of social life. In this thesis, I consider how space is related to the patterning of corporeal mobility in cities by drawing upon interviews conducted with bicycle couriers. I show how space and mobility are articulated towards one another through the anticipatory interface of the cognitive map. The interviews also suggest that in addition to anticipation, mobility is also largely creative and circumstantial. The popular interpretation of such creativity as resistance to a spatial structure is specifically rejected in favor of interpreting this creativity as improvisation. This interpretation stems from the theoretical understanding of urban spaces as not closed systems but diagrammatic assemblages that are open to a degree of play at the margins. From this perspective, I conclude that improvisation is not the deconstruction of spatial meaning but the means by which the normative dimension of spaces become established.

DEDICATION

In memory of Jennifer Lillian Pedersen

and

Patrick William Colgan

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INTRODUCTION

This thesis¹ explores the relationship between city spaces and corporeal mobility from the perspective of bicycle couriers. These aspects of urban life are understood here to be mutually conditioning social constructs that each contribute to the shape and form of the other. This reciprocal relationship has been hidden by the erroneous view that space and human action are independent of one another, an approach that Lefebvre (1991: 27) critiques as the “illusion of transparency.” Rather than viewing space as a neutral backdrop to mobility, this thesis argues that space and mobility directly imply one another, and hence an analysis of one cannot be divorced from considerations of the other. What is at stake is an understanding of social space that extends beyond familiar conceptions of *place* to include the dynamics and potentially transformative power of movement and passage as well. Although these dynamics of mobility may not fit traditional understandings of place and the apparatuses of capture that structure them, analyses of space that do not take into account considerations of mobility miss these transformative potentials.

Courier mobility is placed within a theoretical context that views cities as constituted by lines of mobility which are acted upon by apparatuses of power to shape their form into normative spaces. These apparatuses are not spectacular manifestations of sovereign power, and nor do they act through coercion or consent. They are often subtle, non-coercive, and indirect strategies that function at a multitude of points to structure a field of possibilities in which individual movements are influenced to take certain forms. What can be learned from couriers is an up-close and compressed account of how mobility is shaped by these strategies. A significant component of courier mobility is

anticipation. This dimension of mobility is captured by the concept of the **cognitive map**, understood here as an anticipatory sketch of the city's normative landscape that functions to orient individual actions to expectations of what is to come. The concept of the cognitive map is not new to sociology; in the seminal text *The Image of the City*, Lynch (1960) outlines a number of significant points that form the basis for the cognitive representation of cities. This thesis, however, puts the concept of the cognitive map within a conception of space that emphasizes lines of mobility over the final points. In this context, the question shifts from how do people map the points to *how do people map the lines?*

SPACE AND MOBILITY

One way to approach the spacing of mobility in cities is from the perspective of time geography (Thrift, 1977; Parkes and Thrift, 1980). Time geography is concerned with the limits that physical settings impose on the coordination of human interaction through the spatial and temporal mapping of social life (Parks and Thrift, 1980).² While this approach has some purchase with the focus of this thesis, time geography has some limitations. Most significantly, time geography is based upon a physicalist notion of space, described by Thrift (1977: 4) as a “respect for the conditions which space, time, and the environment impose on what the individual can do” (Thrift, 1977: 4). This approach posits space as a passive, *a priori* condition of human life that confers neither influence nor reciprocal relation with social processes. Space is simply a container that sets physical limits on action. As such, time geography fails to take into account the interrelationship between space and mobility as social constructs as well as lacking a

developed sense of how this relationship can be differentially structured (Giddens, 1984; Urry, 1991; 1996). From this perspective, cities are little more than the aggregate of physical constraints and the cognitive map is reduced to linkages between Cartesian coordinates.

Normative approaches to cities incorporate the social, emotional, and symbolic meanings that can be attached to space and the impact these dimensions have upon human mobility (Golledge, 1978; Gould and White, 1986; Werlen, 1993). Taking into account these normative dimensions of space are important considerations that extend beyond the physicalist framework of time geography, yet this approach is limited by a conceptual relationship that views the normative as prior to the mobile. Tuan has summarized this view by remarking that “place is a break or pause in movement that allows a location to become a center of meaning with space organized around it” (1978: 7). Place corresponds with rest and stability while mobility, in opposition, is disruptive of place. Implicit in these comments is the view that social spaces exist prior to and independent of the lines of mobility that permeate a place’s boundaries. This approach is misleading for a number of reasons, one of which is particularly important here. Such a view characterizes the condition of movement as essentially transgressive, as a force or source of resistance, privileging that which is static and structured as in place while that which moves is – by virtue of its mobility - intrinsically unstructured and resistive (Cresswell, 2000).³ Place and movement are “antithetical”, as Tuan states (1978: 7). The two are mutually exclusive.

Recent perspectives in social theory have moved away from time geography’s physicalist approach as well as traditional conceptions of place found in social geography

(Massey, 1993; Mol and Law, 1994; Grosz, 1995; Urry, 2000; 2000a). Once conceived as stabilized and structured, the production of social spaces is increasingly viewed as the outcome of interconnecting relations and mixtures of diverse elements rather than processes promoting homogeneity and exclusion (cf. Cresswell, 1996; Mitchell, 1995; 2003). Conceptually, this reverses the subordination of mobility to the norm by undoing the presumption that places exist prior to lines of mobility. As Deleuze comments, “it is not the line that is between two points but the point that is at the intersection of two lines” (in Amin and Thrift, 2002: 29). Consequently, social spaces can be understood as the products of lines of mobility, or more specifically, spaces are produced by their locations within networks of connections and mobile flows that intersect at particular nodes to produce what is understood as a socially significant locale. Grossberg (2000: 21) exemplifies this productive role of mobility:

Places cannot be separated from the directional vectors of the milieus and dimensional resonances of other places. To speak of places and spaces is always a matter of relations between them and of lines of mobility that connect and traverse them.

As a result, social spaces and their boundaries are more fluid and permeable than previously understood (Massumi, in Grosz, 1995: 131). Other concepts aside from place can then be used to describe social spaces, concepts such as fluid spaces (Mol and Law, 1994), extroverted spaces (Massey, 1993: 66), or a performative style of spaces (Gregson and Rose, 2000; Rose, 2002). What these concepts have in common is the view that lines of mobility precede the point of their intersection, not the reverse. Accordingly, mobility is neither essentially antithetical nor subordinate to social space, and neither can mobility and space be seen as independent constructs. Mobility is a necessary condition for the production of social spaces, and it then

follows that an analysis of social space cannot be divorced from analysis of mobility. The two are not mutually exclusive; space and mobility imply one another.

Implicated as they are, mobility alone is not a sufficient condition to produce social spaces. While lines of mobility have the potential to be shaped into normative spaces, these lines are only the raw material that can be shaped an infinite number of ways. In the absence of influence they would remain a loose tangle of competing lines that lack stability, order, and a normative consensus. These liminal or marginal spaces are characterized by unstructured or unpatterned lines as they do not fall under a singular source of power or standard of functionality that would order them (Ilcan, 1998: 10). It takes an application of influence to overcome liminality and to bind lines into particular *kinds* of normative spaces by civilizing their potential and reducing ambiguity to produce stabilized spaces (Osborne and Rose, 1999).⁴

Stabilizing lines is not a process of boundary building, however. Boundaries are mechanisms that frame, limit, and define their subject by immobilizing relations of difference in order to freeze meaning. Boundaries are apparatuses of capture (Deleuze and Guattari, 1987). Flows of mobile people and objects, on the other hand, are the product of difference (Shields, 1997). Framing flows immobilizes the relations of difference that constitute them, and hence to frame a flow would preclude their potential uses as captured flows cannot be usefully re-deployed. Apparatuses of power, on the other hand, do not function on the basis of capture or closure for this represents the limit of power, not the basis for its exercise (O'Connor, 2002: 35). In Foucault's (1983: 219-221) view, power exists only as it is put into action and through affecting the outcome of other actual or potential actions. As differentiated from relations of force that work in

spite of relations of difference, relations of power do not exhaust or preclude the outcome of a relation but function instead to influence the expression of a relation (Deleuze, 1988: 70-73). Power, when applied to flows of all kinds, are visible in an affected flow.

When distinct *sets* of actions-upon-actions become discernable, we are dealing with what Deleuze calls a diagram of power. For Deleuze, a diagram is a set of actions-upon-actions that operate to “impose a particular conduct upon a particular human multiplicity” (Deleuze, 1988: 34). Generally speaking, a diagram of power is any relatively cohesive set of actions or techniques that seek to produce a desired form of conduct from a human population (Rose and Osborne, 1999; Amin and Thrift, 2002). Although the analogy of a map is used by Deleuze to describe diagrams (1988: 34), diagrams are not material depictions of concrete arrangements (such as the floor plan of a factory, school, or prison) but the abstracted, non-formal techniques by which certain patterns of conduct can be induced (such as the visual assemblage of discipline). These abstract machines act upon unformed, unorganized potential, or what Deleuze (2001: 25-33) calls a plane of immanence, to segment a field of possibilities through which this potential can be realized in certain ways.⁵

Thinking of cities as composed of lines of mobility and diagrams of power redraws the spatial conception of cities based upon space as place. Rather than conceptualizing cities as composed of relatively homogenous parcels (contested as they may be), cities can be thought of as a space constituted by lines of intersecting mobilities that are acted upon by a myriad of diagrammatic techniques to shape them into stabilized patterns of mobility (Osborne and Rose, 1999; Amin and Thrift, 2002). This does not detract from the view that urban spaces have normative narratives that suggest proper

conduct, but departs from the view that these narratives exist prior to movements and which are imposed upon flows. Rather, it is the movements of people – or more specifically, the potential of movement – that is the unformed, immanent plane that diagrams seek to order and *patterns of normative conduct are the finalized, visible effects* of diagrams. Diagramming urban flows is to influence objects of flow to move in certain ways, along certain lines, and towards certain points.

These patterns of normativity are not the function of one authentic diagram of urban circulation for there is no singular overarching diagram or authoritative structure that acts upon mobility. Multiplicities of diagrams superimpose one another to order, arrange, and distribute the immanent potential of mobility in useful ways – the city as a mechanosphere of diagrammatic assemblages (Deleuze and Guattari, 1986: 514; Amin and Thrift, 2003: 78). There are many different kinds of diagrams that constitute the urban mechanosphere. Discipline is one way of diagramming cities as evident in the gridded street layout of modern cities and the gazes, both actual and potential, that proliferate in cities (Bauman, 1998). Cities are not singular disciplinary arrangements, however; other diagrams in addition to discipline affect the flow, such as risk-based mentalities of governance that have been tied to the actuarial practices of private security agents who oversee quasi-public spaces (Erikson and Haggerty, 1997; Rigakos and Greener, 2000). There is also the ubiquitous diagram of official and non-official signage that guides people through city spaces (Hermer and Hunt, 1996) and the machinic infrastructure of circulation that modulates flows (roads, sidewalks, public transit, traffic lights). Finally, there is the juridical-sovereign diagram of law that also diagrams urban spaces into parcels coded for particular uses and forms of mobility and enforced by

public and private police (Valverde and Cirak, 2003). All these diagrams work upon urban circulation by constructing and coding authorized lines along which actual mobilities are to be channeled. From this perspective, the city can be described as an immanent plane of potential lines that is acted upon by abstract diagrammatic assemblages by intensifying some lines and weakening others to produce patterned, stabilized, normative lines.

Recognizing cities as constituted by diagrammatic multiplicities does not imply homogeneity or consistency between diagrams, however. Distinct diagrams can overlap and mutually reinforce one another to produce strongly diagrammed spaces with clearly defined norms, or diagrams can diverge or meet at cross-purposes creating a diagrammatic struggle. The interviews with couriers will illustrate how these diagrammatic struggles produce actions which do not fit cleanly within the lines of any particular diagram. Furthermore, if intersecting flows constitute social spaces and diagrams subsequently work upon flows to produce certain kinds of spaces, then flows have the potential to exceed diagrammed lines. Diagrams, writes Deleuze (1988: 44), are contested by “relatively free or unbounded points, points of creativity, change and resistance” from within the relations they seek to order. Diagrams presuppose these points of creativity, and although it is the project of diagrams to influence the expression of this creativity, there is no exercise of power that does not also include openings or turning points that invite other ways of thinking and acting.⁶ These openings offer the potential to draw new lines that escape diagrammed lines and trace diagonals or transversals across a segmented plane (Deleuze and Guattari, 1987: 210-212; Rajchman, 2000). A distinction can thus be drawn between at least two types of lines – *diagrammed*

lines, which are authorized routes constructed by diagrammatic assemblages; and ephemeral *lines of flight* that are creative in form and which have the potential to cross over the geometry of diagrammed lines. Lines of flight differ from diagrammed lines in that mobility follows diagrammed lines while lines of flight are created by movement, not followed. As Deleuze and Guattari (1987: 204) see it, there is nothing more active or creative than a line of flight.

Lines of flight bear a close resemblance to the ideas of de Certeau who celebrates the “ways of being” that “drift across an imposed terrain” (de Certeau, 1984: 34). The likeness between de Certeau and Deleuze and Guattari is shared only to a certain extent, however. De Certeau’s writings have inspired other authors to celebrate innocuous practices such as panhandling or busking for money under the broader category of resistance (e.g., Cresswell, 1996; Pile and Keith, 1997; Lees, 1998; Flusty, 2000). This approach has some allure to it, but a literal application of de Certeau’s ideas, especially to the heterogeneous spatial ensemble of the city, introduces conceptual as well as analytical problems. Conceptually, there is a danger of grafting on a hegemonic framework of power in support of the resistance thesis (Rose, 2002).⁷ The question then becomes: resistance *to what?* What is the target of this resistance?⁸ Analytically, there is some difficulty in defining what actions constitute resistance when the issue of intent is introduced. Both problems are compounded when the frameworks in which resistances are articulated may appear homogenous but upon examination are loose arrangements of overlapping and sometimes divergent frameworks (I would say diagrams). Resistances, like performances, are slippery enactments that exist at the nexus of multiple diagrams and which never faithfully recreate (or resist) that which they perform (Gregson and

Rose, 2000). In short, resistance is a term that corresponds with closed frameworks and zero-sum relations of powers (Rose, 2002).

These problems are sidestepped by viewing cities as diagrammatic assemblages. Diagrams are open systems, not closed, and diagrammatic power is a function, not a property. What diagrams presuppose are not hegemonic, homogenous frameworks but molecular, spontaneous, immanent points of creativity that can unfold in an infinite number of ways that diagrams seek to order. In this context, improvisation is term that corresponds more closely to diagram than resistance does (Blum, 2003: 267-270). Improvisation is not a reactive form of action; improvisation is the proactive elaboration of immediate circumstances that can produce tension between the diagrammatic assemblage that orders circulation and the creativity of the individual. Although diagrams act to minimize this tension, improvisation can exploit the openings in diagrammatic assemblages to trace diagonal lines of flight across a segmented plane (Rajchman, 2000; 2001). These improvised lines of flight can leak out anywhere; streets, alleys, private property. Wherever diagrams segment, improvised lines can exceed (Seigworth, 2000).

THE COGNITIVE MAP

Mediating between the two planes of urban mobility – the abstract mechanosphere and the plane of immanent potential – is the interface of the cognitive map (cf. Grosz, 1995: 108). The map is not conceived of as separate from or resistant to urban diagrams but engaged with diagrams in a reciprocal process of *folding* and *enfolding*. This reciprocal process reflects the nature of anticipation to be mobilized

either as a means of inducing conformity or facilitating improvisation. It will be illustrated below that urban mobility is enabled to a great extent by what is anticipated of city spaces. City spaces are diagrammed into normative parcels for use; to walk here, ride here, and drive there. The folding of the map is the anticipatory sketch of this landscape which serves as the leading edge of spatial template to align action to the contours of normative narratives (cf. Shields, 1997a). Mapping these diagrammed lines calibrates practices of mobility to these narratives, which functions to induce certain forms of conduct. In this way, anticipation is folded to produce diagrammed lines of mobility. Anticipation by itself, however, is ambivalent. Anticipation can be folded to induce conformity but anticipation can also enfold diagrams to facilitate improvised lines of flight. Enfolding diagrams is to anticipate the field of potential in which gazes operate, especially the gaps and liminalities that permeate a gaze's field of vision, as well as mobilizing what lies beyond the visual field, or in the out-of-field (O'Connor, 2002:10) in order to condition what is brought under the gaze. In his autobiographical account of the courier occupation, Culley (2002: 156) refers to this as the "flank reality" of courier work; the aspects of urban life that one is not attuned to until one learns to experience the city as a whole. What tilts ambivalent anticipation to map either diagrammed lines or lines of flight is the affinity of the map towards particular diagrams over others. When diagrams reinforce one another this affinity is not evident, but when diagrams meet at obtuse angles the affinity becomes evident as anticipation then shifts to a means of finding or creating the openings through which lines of flight can be improvised. Together, the map is akin to a webbing that is drawn by anticipation along

certain lines but which is also fluid and shifting according to circumstance, ready to exploit openings as they arise but also inclined to create them.

Timing Mobility

The first diagram to fold the anticipatory dimension of the map is the rigid diagram of clock time. This fold results from the arrangements by which couriers are financially compensated. Courier pay is calculated on a commission basis where pay is calculated from the number of deliveries, or “trips”⁹ a courier is able to deliver in a day. Moreover, some trips are worth more than others based on the distance and the duration of time within which a trip must be delivered as specified by the paying client.¹⁰ This commission basis builds in a monetary incentive to complete the greatest number of trips in a day, an incentive reaffirming the expression that “time is money” [Interview 14].¹¹ As such, there is a diagrammed emphasis upon maintaining mobility as being mobile is “the name of the game, to keep going... being on the bike translates into cash so it’s all about being on the move” [Interview 12].¹²

Commission pay quantifies and commodifies space as well. “You are always thinking of distance and time”, remarks one courier [Interview 4]; but the critical distinction between this temporal diagram and spatial diagrams is in respect to the gazes involved. The temporal diagram is mediated by the centralized, virtual gaze of the dispatcher who monitors the times of a courier’s deliveries, while the spatial practices by which deliveries are completed is refracted amongst numerous imperfect gazes (Hannah, 1996). The visual mediators of urban surveillance are compromised by limited fields of vision, and hence cities are best understood as oligoptic formations: discontinuous arrays

of partial orders with their own sets of institutional rules and normative expectations (Amin and Thrift, 2002: 128). Between these localized gazes lie numerous liminal zones where spaces lack clear diagrammatic segmentations. The result of the intersection of a singular, centralized temporal diagram with numerous fragmented spatial diagrams is a map that is sutured to temporal striations rather than spatial striations. As the *when* of a courier's mobility is inspected at every point along the way, the *how* is left to the courier's own creativity that, at times, exceeds spatial diagrams. This diagrammatic struggle is described by one courier as follows: "I'm always under pressure to be as quick as possible. It means going the wrong way down one-way streets, riding on the sidewalks. I do all that" [Interview 13]. This diagrammatic intersection that privileges time over space forms the basis upon which the city is mapped. The map shifts to anticipating the oligoptic landscape in terms of spaces that afford the greatest degree of momentum within a finite (and carefully accounted for) duration of time.

Spacing Mobility

Anticipating lines of mobility is oriented by two dominant considerations. One courier describes these considerations as follows: "My first thought is how to get there fast and my second thought is how to avoid the cops" [Interview 10].¹³ The first consideration – "how to get there fast" – is the anticipatory mapping of the city in terms of spaces that enable mobility and which I refer to as *mapping the flow*. The second consideration – "how to avoid the cops" – is the anticipatory mapping of spaces that constrain mobility and which I refer to as *mapping the gaze*. Both dimensions of anticipation are permeated by openings along the lines, either unforeseen or created by

couriers, which offer potential lines of flight. This aspect of courier mobility, *improvising lines*, comprises the final section of this thesis.

Mapping the Flow

A courier's map is a dynamic map of movement, not a static route finder. The first aspect of this dynamism is the continual process by which couriers manage their physical positioning within numerous other lines that compose urban flows. As one courier put it, to negotiate the flow one has to "surf" the flow because "it's a faster moving object coming into contact with a slower moving object and you have to be aware of it all or you will bounce. That's why I call it surfing; it's an awareness of your surroundings" [Interview 7]. Surfing the flow is more complex than mapping static paths because flows are constantly in flux and producing new sets of circumstances to be calculated, and hence it is a "technical skill to flow with traffic" [Interview 13]. The courier's map is then in some ways similar to Virillio's (1995) seeing machine as it is not a state of final, undisturbed vision but a map that continuously re-visualizes a churning landscape. Surfing is made difficult as this landscape of flows is composed of heterogeneous threads that resonate in some ways but in other ways produce discord. Traffic and pedestrian flows are the primary threads of urban flow for couriers, each of which are characterized by different tempos and which require different forms of awareness or anticipatory negotiations to avoid bouncing. Mapping flows through sight is complemented by mapping flows through foresight as well.

Anticipating flows, as one courier says, is "what it's all about": "That's what I'm doing while I'm riding, I'm anticipating; I'm anticipating what that driver is going to do

and what that pedestrian will do” [Interview 10]. The way that this anticipation manifests in action – the courier’s surfing style – varies. Two themes emerge at this point, paralleling Toiskiallio’s (2002) path-building and nimble navigation typologies, which I refer to respectively as passive and aggressive anticipatory negotiation. Passive anticipation of traffic results in a surfing style that affirms continuity of the flow while minimizing disturbance. This practice is underpinned by the anticipatory confidence that vehicles drivers will conduct themselves within diagrammed narratives; in this case, traffic regulations. One courier describes this anticipation as such: “Everything we do is based on the fact that the car will obey the laws, so we rely on their steadiness as a constant” [Interview 4]. This anticipation enables them to slip into traffic in the most seamless possible way – to ride “fast and precise” [Interview 3]. More often, however, couriers describe more aggressive forms of anticipatory confidence. This typology resonates with Toiskiallio’s nimble navigator, who has the flow adapt to their presence and actions: “I just give the signal and go. It takes a car two seconds to let you through and they can go on their way. I just point and go” [Interview 14]. Here it is anticipated that the flow will adapt to their actions, the assumption being that the flow can be commanded. However it manifests in action, both navigational styles are based upon an anticipatory mapping of how the lines composing the flow can be best managed in order to avoid crossed lines and the very real threat of bouncing, in both the metaphorical and literal sense of the word.

The anticipation of the spaces where flows are channeled is folded by numerous diagrams. Conduits for vehicle circulation are segmented by a number of overlapping diagrams such as inscribing lines on the ground (traffic lanes), the use of electronic

machines for modulating the flow (traffic lights), and the overlay of legal structures governing these spaces. Anticipating the spaces and rhythms these diagrammatic elements construct are important. For example, the city where this research took place features three major one-way avenues that span the core of the city from east to west. Being able to ride at the speed of traffic and “catch the lights” [Interview 7] along these avenues allows a courier to traverse the core in a matter of minutes. Moreover, the timing of the city lights is designed to keep the flow moving along the avenues rather than the cross-streets [Interview 11]. Returning to and extending the surfing metaphor previously employed, a courier would be able to catch a wave enabled and modulated by the machinic infrastructure of traffic lights.

In addition to affording speed, roadways are attractive for what they often do not pose; significantly, the threat of being ticketed for by-law infractions. Using spaces already diagrammed for mobility grants a “safe haven” because “it’s better to be fast and legit than go half-assed and shady, like trying to be sneaky and stuff” [Interview 1]. These spaces mark a point where distinct spatial diagrams – the infrastructure of movement and legality – superimpose and mutually reinforce one another. Moreover, this intersection synchronizes with the temporal diagram that rewards mobility. The map remains sutured to the temporal diagram, however; one courier states that what these spaces offer is “an opportunity to go faster” while the law is “just something in the background” [Interview 1]. Another courier affirms this point by stating: “I don’t think about the rules but about the flow of traffic and what works best for me” [Interview 5]. There is no diagrammatic contradiction though, so the affinity of the map to the temporal diagram is not evident in action (unless the unlikely occurrence that a courier is pulled

over for speeding).¹⁴ Anticipating these spaces of flow that exist at the nexus of multiple overlapping diagrams folds anticipation to produce mobilities that are drawn along diagrammed lines.

As important as anticipation is to avoiding bouncing and knowing lines of flow, anticipation can be disrupted by irregular flows to produce unforeseeable openings. Flows of traffic can be read in a comparatively predictable manner but which is subject to some degree of fluctuation: “cars follow the rules more, so they are way more predictable. Cars go straight most of the time, but not all of the time” [Interview 13]. In contrast, flows of pedestrians are difficult to anticipate. Pedestrians are often described as erratic actors who present a physical threat to the courier by virtue of their unpredictability; or as one courier describes, pedestrians are “bizarre, irrational things” [Interview 6].¹⁵ Another courier describes an encounter with pedestrians as such: “Pedestrians just stop and that’s not good because that’s not what I was expecting them to do. In two seconds I was expecting them to be over there and not still standing there, so I say ‘just keep moving’” [Interview 10]. The ragged nature of these flows, particularly pedestrian flows, “ruins the whole equation” [Interview 4] of anticipatory mapping and creates circumstances that must be negotiated through improvisation. This improvisation, however, is more adaptive or reactive rather than creative: “you have to be ready to instantly stop or maneuver” [Interview 8].

Other openings, such as those provided by liminal spaces, offer more in terms of creative improvisation. Alleyways are the liminal spaces of the courier’s cognitive map as there is a common perception shared amongst couriers that alleyways are beyond the police even though these spaces are technically subject to the same diagrams that order

roadways.¹⁶ As one courier says, “there are not usually cops in alleys, so you can go the wrong way if you need to and not have to worry about getting caught” [Interview 5]. The status of alleyways as liminal spaces stems from the fact that this interpretation of alleyways is not limited to bicycle couriers. Other users interpret alleyways in the same manner, and consequently these spaces lack a dominant normative narrative. In alleyways, a courier can expect

an ongoing conflict between slow moving pedestrians, medium moving cyclists, and fast moving vehicles that will never mesh well. You’ve got too many random situations, too many random opinions in the heads of the people walking their feet or riding their bikes or driving their cars, and everyone thinks ‘this is my space’. [Interview7]

The result is a loose tangle of competing lines that are not diagrammed into stabilized and hence predictable flows that disrupts the equation of anticipatory mapping. In distinction to disruption of ragged flows, however, these liminal openings can be used more creatively by couriers. As one courier describes, alleyways are the “path of least resistance” [Interview 9] that can be used to improvise a line of flight where other lines may be less congruent with the temporal diagram. Before the improvisation of lines is introduced, however, there are other openings where lines of flight can also be improvised that couriers are more active in creating through mapping the gaze.

Mapping the Gaze

It was noted earlier that anticipation is ambivalent; that is, it can be mobilized as a means of seducing conformity or as a means of escape. The orientation of anticipation towards either pole is the suturing of anticipation to particular diagrams over others, and it was illustrated above the congruence of temporal diagram with spatial diagrams that enable mobility. In that context, the suturing of the cognitive map to the temporal

diagram was not evident as there was no diagrammatic contradiction to expose this suturing. Other diagrams, however, do conflict with the temporal diagram, and in this context anticipation shifts to map the openings that afford lines of flight in order to meet the temporal demands placed upon couriers. Office complexes and the risk management profiles employed by private security officers are significant in this respect. These quasi-public spaces conflict with the temporal diagram because of the myriad of technicalities and regulations that private security officers enforce, such as regarding the proper placement of bicycles, specific elevators for courier use, and sign-in/sign-out requirements for couriers visiting the building. Contravention of any of these rules often results in verbal confrontations and sometimes in security officers double-locking or removing bicycles from the property. These measures effectively operate to limit a courier's momentum and function to shape their habits of negotiating these spaces as couriers "get to know which buildings are really sticky" [Interview 6]. Given the premium placed upon mobility, observance of the rules and regulations governing these spaces is in the courier's "best interest" [Interview 8] so that momentum may be maintained:

They [security personnel] have this attitude that they are gods of the buildings. They are assholes, or at least have asshole potential, so I am always friendly to them and obey the rules. I say 'hi' because I know they can make my life miserable. [Interview 4]¹⁷

Although there is some tension between the temporal diagram and these "bubbles" of private governance (Rigakos and Greener, 2000), the striations of these bubbles are tightly woven and do not afford many openings. These spaces plug the openings that allow lines to escape and hence mobility is (reluctantly) drawn along diagrammed lines. However, it is simple instrumental efficiency for a courier to fit the profile of a non-

objectionable person in order to negotiate these spaces quickly. As one courier states, obeying the rules is done “not for their authority”, but simply because “they are holding me up” [Interview 10].

Other spaces of the gaze do offer openings for potential lines of flight as they are not as tightly diagrammed. The space of “the Mall” illustrates this enfolding well. The Mall is a pedestrian-only avenue that stretches five blocks west from the central core of the city that is the product of a spatial assemblage to limit mobility to pedestrians only. Heavy use of “official graffiti” (Hermer and Hunt, 1996) signifies to potential violators of the monetary fines for riding a bicycle on this avenue and at least three different gazes focus upon this space – private security officers, by-law enforcement officers, and most significantly, municipal police. These diagrammatic elements reinforce one another to produce what Sibley (1988) calls a strongly classified space: its expectations for use and the consequences for transgression are well demarcated and enforced. This strong normativity is reflected in the courier’s map as a focal point for the police gaze. The threat of being ticketed for riding a bicycle along the Mall is “omnipresent” [Interview 4]. In the words of two couriers, this space is a “heat score” [Interview 3, 8] because “you are looking to get caught for whatever you are doing wrong” [Interview 5]. In the words of another courier, “the police really direct their attention there. When they want to ticket bike couriers, that’s where they focus their attention” [Interview 3]. The diagrammatic assemblage mediated primarily by the police frames and structures this space, which in turn is expected to be a space of uni-functional mobility.¹⁸

The gaze diagramming this space is not perfect, however, but has its openings. The relationship between police offices and couriers is often one of a mutual and

sometimes friendly antagonism that can result in letting couriers get away with riding a bicycle on the Mall. The police gaze can grant what de Lint calls the “favor of opacity” (de Lint 2000: 22) that allows a line of flight to be traced: “Sometimes cops just laugh and say ‘I should have busted you three times ago.’ Or they might pull me over and his phone will ring so he says ‘just disappear’ and I say ‘hey no problem’ and I’m gone” [Interview 12]. This opening is, as de Lint suggests, a *favor*. Although a line of light escaping the gaze can be drawn, the power to create this opening does not rest with the courier. It remains with the police officer and is subject to close without notice.

Other openings can be more actively revealed by couriers. This is accomplished by enfolding the visual field and mobilizing the out-of-field to reveal the limits and unintended imperfections of the police gaze. As de Lint (2000) notes, the effectiveness of surveillance relies upon the extent to which information is translated into knowledge, without which surveillance operates for nothing. The importance of this is not lost on couriers. “No laws are enforced if no one is looking” states one courier, and “knowing when the big wave of police officers is about to land on your head” [Interview 7] is important when this wave has consequences that are incongruent with the temporal diagram.

Herbert (1997) has illustrated how the police gaze relies heavily upon spatial boundaries to construct framed spaces where the police gaze can be deployed. Doing so creates a space that is extracted in the eyes of the looker to be a static scene but which is actually tied to a larger, more fluid field, and thus what is extracted cannot be reduced to what is captured by the frame. The frame cannot capture all there is to see as the frame is a porous membrane that is open to exchanges and communication with what lies beyond

the frame. These processes of exchange have the potential to change and/or transform what is seen within the frame (O'Connor, 2002). Other forms of vision and other sensory registers are forms of exchange that can communicate with the larger field that exists beyond the frame, or in the out-of-field (O'Connor, 2002: 10). These mechanisms of exchange have the potential to condition what is capturing within the gaze's frame. Mobilizing the out-of-field through these mechanisms of exchange can highlight emerging openings (such as the favor of opacity) as well as being used to actively create new openings. The temporal rhythms of "quota time" at the Mall illustrate these processes of exchange well.

Rhythm is a quality of the urban scene that extends beyond the visible – it is an aspect of the out-of-field (Shields, 2003). Quota time is a rhythmic period at the end of the month when police officers are putatively responsible for achieving a monthly quota of issued tickets.¹⁹ This temporal facet of the gaze was commented on by all couriers as the time when police are more likely to issue tickets. This anticipation of rhythm forms an important consideration when negotiating the Mall. During days outside of quota time, the police are perceived as less likely to be issuing tickets; it is "not a big deal; you can get away with a lot more stuff" [Interview 13].²⁰ The anticipation of quota time, however, transforms their practices; they operate "inside the law" [Interview 5] as practices that exceed the diagram (i.e., riding a bicycle) are likely to come up against the leading edge of police power's coercive side – the omnipresent but not always realized threat of the ticket.²¹

Facilitating this transformative potential is the exchange mechanism of sound. Sound is a non-visual component of the scene that can transform what is seen within the

frame. Couriers using radio and electronic means of communication can alert one another to share whether police officers are actively ticketing couriers on the Mall. As one courier recalls, “it would go out on the radios... you would hear ‘cops on the mall’ and you would know to walk when you are there” [Interview 2]. This is done “as a heads up to the other guys to say ‘behave yourself when you are over there’” [Interview 10]. With this communicated information, the anticipation of space/time is adjusted and lines of mobility are transformed on-the-fly: “I definitely make mental note and either avoid that area or else make sure that I’m operating inside the law when I’m in those areas” [Interview 5].

In addition to knowing the rhythms of the Mall, transforming the visual field can also be enabled by a distinct mode of vision that is differentiated from the static and timeless gaze. As one courier emphasizes, simply “looking around and being aware” [Interview 8] can be a powerful tool in anticipating the police gaze and conditioning the visual field. Glimpsing the visual field through a rapid, fleeting scan is a kind of visual *flaneurie* that takes in the entirety of a horizon of possibilities, including emerging encounters and unforeseen openings (Shields, 2003). Whereas the gaze frames and focuses, the glance does not cut nor frame the setting but is a holistic, mobile form of seeing. For couriers, the vision afforded by the glance is indispensable. The glance provides a line of sight for what is to come, including the presence of police officers, which enfolds figures of the gaze. The panoramic scan of the glance - looking “180 degrees from side to side... like a fish” [Interview 1] – allows the police gaze to be seen and registered before a chance encounter becomes a stable relation: “you look around so you can see them before they see you and you can change what you are doing” [Interview

12]. Glimpsing the visual panorama allows the courier to enfold the gaze in such a way that they are effectively invisible to police officers: “I’m always scanning. I never let my eyes rest on one thing for too long. If I can just get a glimpse of the cops before they see me then I can get off my bike really fast” [Interview 3]. A number of lines of flight to avoid police officers are enabled by the glance. For example, one courier notes that police officers tend to walk down the most visible middle lane of the Mall and thus “riding high on the Mall” and scanning the central lane reduces a chance encounter with the police by reversing direction of sight between courier and cop [Interview 11]. Similarly, side-riding a bicycle allows a courier to “crawl the mall” by reducing the chance of being seen by police officers [Interview 1].

To summarize this section, the intersection of the temporal diagram with spatial assemblages that constrain mobility produce an anticipatory mapping of the city that is disposed to highlight the openings where lines of flight can be traced. When such openings are precluded by tightly diagrammed spaces, such as office complexes, there exists only tension at the intersection but which results in practices of mobility that are within the lines of the diagram. When the temporal diagram intersects with loose spatial assemblages, the affinity of the map to the temporal diagram results in an anticipatory mapping of the city that enfolds the cracks within the visual field – gifts of opacity – as well as the unintended openings that revealed by mobilizing the out-of-field. Linked together with the mapping of flows, this has illustrated courier mobility is conditioned by anticipation, but negotiating routes that connect points is largely a matter of improvisation.

Improvising Lines

Anticipating spaces of flow and spaces of the gaze allows a courier to map the points to be connected, but it has been shown that anticipation is shot through with unforeseen disruptions, liminal spaces, gifts of opacity, and enfolded openings. In this context, a courier's mobility occurs in relation to a horizon of possibilities of diagrammed lines and potential openings that can leak lines of flight all cross-cut by the temporal diagram encouraging maximum mobility. Looking ahead in anticipation, a courier may envision a route through the horizon of possibilities: "When you get your trips you lay them out so that you don't have to break the law. If you lay them out like that it should work..." [Interview 13]; but this anticipation is only the *suggestion* of a line because "it does not always work and you have to break the law" [Interview 13]. Anticipating lines of mobility are only likelihoods, not certainties. The margin of uncertainty must be negotiated in the immediate moment through improvisation. For Deleuze, the element of the *moment* has a certain importance as it is in the moment, or rather the in-between moments that potential forces engage in a process of being actualized (2001). Diagrams function to influence the immanent potential of the moment, but there always exists moments that are open to other ways of thinking and acting that are not yet diagrammed. It is in the moment of what Deleuze calls the "immediate consciousness" that new, improvised lines are capable of being drawn.

The immediate consciousness of the courier map negotiates the immediate circumstances a courier is situated within. As one courier described, negotiating the moment is about "subconsciously calculating vectors and masses in motion" [Interview 1]. This can be challenging because of the multitude of forces that act upon the courier's

line as it unfolds in the blur of movement: “The hardest thing is paying attention to everything, like the cars, the parked cars, the doors, the pedestrians walking between cars, jumping the lights... and then the cops add a whole other dimension” [Interview 4]. As this passage illustrates, the circumstances of the moment relate to the anticipations of space as well; the “other dimension” is the anticipation of the gaze and, specifically in the above passage, the police gaze. All these momentary considerations and anticipatory negotiations impact upon on the courier’s line as it unfolds “on the fly” [Interview 7].

What this amounts to is a rhizomatic rather than arboreal map of the city that changes its folds according to the forces acting upon it while simultaneously enfolding diagrammed lines (Conley, 1998; Deleuze and Guattari, 1987). The cognitive map does not connect points in the way that an arboreal cartographic representation declaratively states; the map knows these lines and uses these lines, but it is not *bound* by these lines. As has been shown, diagrammed lines can facilitate movement, but they can also act as obstacles to a courier’s line [Interview 8].²² “Things pop up and your route gets fucked” [Interview 10], so being rhizomatic mapping , or being “flexible in mind” [Interview 10], draws new lines of flight that “just cut across the city in a straight line” [Interview 8].

Here is where enfolding spatial diagrams becomes important because these lines intersect at obtuse angles with diagrammed lines. Breaking the law is “necessary sometimes”, but as this courier describes there are “certain ways routes to take so that you don’t even know I’m there” [Interview 8].²³ Liminal openings also have their useful potential. Liminal alleyways can be used to patch together diagrammed lines are not congruent with the temporal diagram: “it does not matter if the lights are not working your way or there is lots of traffic, just jump in the alley and take that” [Interview 12].

All these anticipations, disruptions, openings and improvisations occur in the blur of movement, and negotiating these strings of moments with their varying circumstances is a matter of “what’s in your head at the moment right then and there” [Interview 7]. This context of being faced with a field of shifting anticipated lines and improvisational potential was likened by one courier to a game of “aerobic chess” because the different trips have different speeds and movements across the city while the playing field itself changes shape as one plays [Interview 11]. The courier map remaps a new playing field at every moment, temporarily grafting on to diagrammed lines while simultaneously mapping their loose segmentations in order to improvise a line of flight. A courier’s route line, then, only really becomes a line in hindsight. Consider the following courier’s description of connecting two points:

If you catch the lights they are pretty much in sync and towards the end if you catch a red light you are going to jump the sidewalk, go down the alley and the wrong way down the street just to get it there on time and you don’t care because really if you keep your eyes open you’re not going to get caught, you’re not going to hurt anyone and no one is going to complain. [Interview 7]

This description captures the blend of anticipation and improvisation that come together in the moment. This courier anticipates the flow and the machinic infrastructure of traffic lights that modulates the flow, but when this anticipation is disrupted (in this case, disrupted by a red light), an improvised line crosses over a space diagrammed for pedestrians, the liminal alleyway is used to maintain momentum, and always keeping “eyes open” mobilizes the out-of-field so as to not come under the gaze. All this, of course, is done in order to “get it there on time”. Looking ahead with expectation, this line cannot be anticipated with certainty. The map can anticipate only possibilities, circumstances, contingencies and openings that can only be loosely anticipated but which

must also be negotiated in the moment through improvisation. Lines of mobility cannot be fully envisioned prior to their mapping but only become so after they have been improvised. Lines can shatter, diverge, or converge, and they are never the same twice. Couriers are agents of improvisation in the urban field: “You just re-route in your head and keep changing. You always have to work with it, always changing” [Interview 4].

CONCLUSION

Since city spaces are only relatively bounded constructs that are the product of diagrammed mobilities, it should come as no surprise that some of these lines exceed the expectations of normative diagrams. The importance of this observation lies in what excessiveness means for a conception of social space. From a place-informed conception of space, these errant lines drawn by tactical pedestrians are indicative of ever-present forms of resistance to a reified conception of place. The mobile habits of couriers suggest an alternate interpretation of mobility, one that departs from resistance. It has been shown that couriers map their positioning within the spatial context of the city in terms of spaces that constrain their mobility; these are the spaces and actions that resistance studies take as their object. But this is only one aspect of courier mobility. To focus only upon practices that occur within spaces of constraint ignores the fact that couriers are also highly purposive in using spaces that enable their mobility as well (Giddens, 1984; Fox-Gotham and Brumley, 2002). The mobile practices of couriers are more than simply reactive or adaptive practices that occur in response to a framework of hegemonic power. Couriers are more than simply agents of resistance; they are agents of improvisation that act with temporal diagrams which disposes couriers to map the city in

terms of mobility. Resistance fails to capture this disposition because it focuses on the deconstruction of closed systems. Cities may be characterized as apparatuses of closure (e.g., Davis, 1992), but this is not their defining characteristic. Before apparatuses of capture seize flows and before uni-directional relations of force become galvanized as such, diagrams of power act upon the field of possibilities upon which further relations are built. This is the margin where the cognitive map is shaped through the various foldings of anticipation and the out-of-field.

But mobility as improvisation only makes sense within a conception of space that does not presuppose a hegemonic system of power and resistance. This is the central contribution of this thesis. It has been shown that social space is the product of diagrammed lines of mobility that are open to a degree of play at the margins and that lines of mobility are prior to normative expectations of conduct. The implication is that normative spatial practices are not the product of an essential identity or transcendental structure of significance (Natter and Jones III; 1997), are but one potential fold in the processes of improvising mobility through the city. Improvisation enables space to appear as an interpretive multiplicity rather than a system of enclosure. Contrary to the proponents of resistance frameworks would argue this to be a process of deconstruction, I am inclined to agree with Rose (2002: 393) and Blum (2003: 271) who regard elaboration as the process by which some normative refrains are made more important than others. It is through this process of improvised elaboration that social spaces become marked and differentiated from one another. This conception of diagrammed spaces allows us to move beyond place-bound conceptions of social space to include the productive role of mobility and improvisation in the social spatialization of the city.

¹ This thesis is written as an article-length manuscript according to the standards of submission to academic journals.

² Thrift (1977) describes the basic structuring rules of time and space as such: 1) the indivisibility and corporeality of the body; 2) the one-way movement of a life span towards death; 3) time is a scarce resource that imposes limits on the number of tasks humans can perform at once; 4) the fact that movement in space is also movement in time; and 6) the limited packing capacity of time-space.

³ There is an interesting and important body of literature on the processes by which places maintain internal homogeneity mechanisms of cleansing/purging (Sibley, 1988; Bauman, 2000: 101) that commonly arise when figures that embody marginal social statuses are perceived as “out of place” (Cresswell, 1996). The urban geography of sex work in Vancouver is especially illuminating. During the 1970s a series of police raids displaced many sex workers from bars and hotels to highly visible public spaces. This displacement was particularly troublesome when sex workers encroached the upper-scale neighborhood of the West End, which mobilized under the moniker of CROWE (Concerned Residents of the West End) to force sex workers out of the area. Subsequent to CROWE’s highly publicized endeavor, street sex workers were confined to the spatially and culturally marginal space of the Downtown Eastside (Lowman, 1986). Hubbard (1999) reads this series of events as the defense mechanism of community functioning to maintain the dominant hetero-patriarchal sexuality of place. These events are based processes of boundary building, an apparatus of capture. These processes are important as they reveal much about how identity and meaning can be tied to geographic backgrounds, but they should not be taken as typical of urban power dynamics. They are, as Hubbard suggests, processes of defense that becomes visible only when something/someone is out of place. Other, subtler forms of power act upon people on a daily basis. Simply because these strategies are ubiquitous should not detract from their importance; rather, it is precisely because they are ubiquity that they should attract our attention as they structure everyday life. The patterning of urban circulation is one such everyday process.

⁴ This parallels Giddens’ (1984; 1986) concept of time-space distanciation as the basis for social structure. For Giddens’, practices (lines of mobility) that are most routinized and have the greatest durability across time and space (that are stabilized) are known in structuration theory as structural institutions (Giddens, 1984: 16-19). It takes the application of power, which Giddens defines as authoritative and allocative resources (diagrams) to structure (pattern) the spatial/temporal contours of such institutions (spaces).

⁵ Discipline, for example, is a diagram of power. Abstracted from particular settings, the disciplinary diagram can be applied wherever multiplicities converge. “We need only insist that the multiplicity is reduced and confined to a tight space and that the imposition of a form of conduct is done by distributing in space, laying out and serializing in time, composing in space-time, and so on” (Deleuze, 1988: 34). Given that these techniques of confinement, distribution, and serialization (and so on...) are not inherent properties of the school, the workhouse, or the prison, these techniques can be detached from an affinity with concrete assemblages. In the abstracted or diagrammatic form, these techniques can be applied to almost any setting where masses are found (O’Connor,

2002: 37-38). To illustrate the disciplinary diagram applied to a potentially unruly space, Foucault draws upon the example of the military port at Rochefort, France where the normative space of the hospital was borne of intersecting mobilities through the imposition of disciplinary techniques. Described by Foucault, this port was a “crossroads for dangerous mixtures” in the form of circulating goods and people: “sailors embarking and disembarking, diseases and epidemics - a place of desertion, smuggling, contagious... a meeting-place for forbidden circulations” (Foucault, 1977: 144). In response to these dangerous mixtures, disciplinary techniques were slowly developed and implemented to enumerate and account for the circulation of commodities and people who passed through the port. “Gradually, an administrative and political space was articulated upon a therapeutic space; it tended to individualize bodies, diseases, symptoms, lives and deaths; in constituted a real table of juxtaposed and carefully distinct singularities” (Foucault, 1977: 143). Similar developments occurred in the great cities in the late 18th century (London, Paris, and New York). These cities were fertile grounds for disease, vice, and unruly mobs that threatened the stability of these emerging metropolises and which were especially acute in New York City of the late 1800s as a result of thousands of European immigrants entering the city at this time (Hall, 1989). In response to undisciplined masses, the social cartography first developed by Charles Booth in London was transported to New York City to help create spaces that were visible, knowable, calculable, and governable (Hall, 1989: 28; Dennis, 2000: 104-116). In these examples, undisciplined circulations of people are disciplined into patterns of mobility that involve the application of a diagram; discipline. The movements of the masses, however, precede the construction of such spaces – the line precedes the point. Discipline, however, is only one diagram and “there are as many diagrams as there are social fields in history” (Deleuze, 1986: 34). Elsewhere, Deleuze (1992) traces the outline of a new diagram of power, one that is less concerned with the *disciplining* of subjects through enclosure and surveillance but with the exercise of *control* over the subject through the electronic modulation of social contexts “like a sieve whose mesh will transmute from point to point” (Deleuze, 1992: 4). In this diagram, control is worked into the social fabric of society, or rather, the electronic circuits of society, which doubles the corporeality of the subject into a data profile that grants (or denies) access to different circuits of knowledge and power. Shearing and Stenning (1984) and Haggerty and Erickson (2000) take up similar lines of thought in exploring the distinctions and between discipline and generalized, unspecific control. Dovetailing with this line of argument is the developing literature on risk-based mentalities of power (Feeley and Simon, 1992; 1994). For an overview of much related literature on contemporary diagrams of control and risk, see Rose (1999: 233-273). On historical ways of diagramming cities, see Hall (1989) contemporary ways of diagramming cities, see Osborne and Rose (1999) and Amin and Thrift (2002: 109-120).

⁶ It is important here to distinguish between a relationship of power and a relationship of force. Foucault (1983) describes a relationship of force as a direct relationship that forecloses further possibilities. A relationship of violence “acts upon a body or upon things; it forces, it bends, it breaks on the wheel, it destroys, or it closed the door on all possibilities” (1983: 220). Relationships of power, on the other hand, are not direct actions upon subjects but actions upon other actions or potential actions in order in

influence their outcome. Relationships of power presuppose the possibility of doing or acting otherwise as well as the possibility of future actions. Diagrams of power, as sets of actions upon other actions, presuppose these possibilities of doing otherwise while diagrams of force (such as sovereignty) preclude the possibility of further action through the imposition of death.

⁷ Rose (2002) argues that conceptions of resistance often have no inherent quality aside from their situation “within a perceived architecture of hegemonic social relations” that is visible only to and articulated by the researcher (Rose, 2002: 387). The effect is to create an analytic category of resistance that presupposes the system of relations that those actions take to be the object of its deconstruction.

⁸ I am indebted to Willem de Lint for drawing my attention this way.

⁹ “Trips” is common jargon among couriers to refer to deliveries. All couriers who participated used this term.

¹⁰ All couriers who participated in this research were compensated in this way. There are couriers, however, who are paid on a per-hour basis. Commission-based couriers outnumber hourly wage couriers by a ratio of approximately 10:1 [Interview 1].

¹¹ See Appendix A for description of research methodology.

¹² Similar sentiments were found in Interviews 2, 3, 7, 13, and 14.

¹³ Another courier makes similar comments: “It’s up to speed and engagement with high police presence” [Interview 4].

¹⁴ Interview 1.

¹⁵ Interviews 2, 6, 8, 11, 10, 12, and 13.

¹⁶ Alleyways were described as “anything-goes zones” [Interview 1], “an open space” [Interview 7], or that “the rules are looser back there” [Interview 8]. Similar comments were found in Interviews 5, 10, 11, 12, and 14.

¹⁷ It is important to note at this point that the passage quoted here came from a female participant. Although the gendered and sexed nature of urban spaces is well-documented (for example, Ilcan, 1998; Munt, 1998; Nast, 1998; Taylor, 1998; Hubbard, 1999; Secor, 2002), this thesis lacks thorough attention to these aspects. This is partially due to the fact that the courier population is overwhelmingly male in the city where this research was conducted as well as perhaps the chain-referral sampling method employed to gather participants which removes from the researcher a degree of control as to the composition of the research group (see Appendix A). Nonetheless, the gendered nature of the cognitive map did arise at various times. When describing how this participant is friendly to private security guards because they have “asshole potential”, Interview 4 also described the gendered nature of this relationship: “There is one [security guard] that I had to be nice to but he was a dirty old man. Now he works at another building and I don’t need him at all so I can ignore him. I never have to speak to him again. We used to have to sign in or pick up trips from him, but not now. I don’t have to talk to him. I won’t even say hi to him.” The anticipation of the gendered and sexed nature of this space clearly has an impact on how this individual negotiates these spaces.

¹⁸ Some couriers contest this rigid mapping of the Mall by mapping only the most central block of the Mall as a point of focus [Interviews 3, 4, 6, 12]. As one courier states, “anything past [the central block] I will always ride” [Interview 3]. Another courier [Interview 4] noted that police headquarters was located near to the east end of the Mall

and that police use that end as an entrance to the central hub. As such, end of the Mall is “tricky” for mapping the presence of police. While every courier could describe an area mapped as a police zone, a consensus could not be established beyond the space of the Mall. This is indicative of the variable mapping of the police gaze across different spaces. As well, there is a difference among couriers as to what the presence of police meant for their activities. For example, one courier mapped a zone just east of the core for the reason that “there is a lot of riff-raff and shit down there” [Interview 1]. As a result, this area is understood as a zone where police are likely to be encountered, however the specific threat of being ticketed was not registered for it was perceived that “they are on the lookout for other things, not people like me”. For this reason, and although this spaces was mapped as a policed zone, the courier is not concerned of being ticketed for by-law infractions. In distinction to this interpretation, another courier perceived a different area as a “dirty” block and that police are “always there” [Interview 10]. For this individual, the general presence of police was interpreted as motivation to conduct oneself in accordance with the law. Another courier reiterated a similar interpretation: “when the cops are around... I just suddenly think ‘what lane am I supposed to be in’ [or] ‘am I supposed to be in the car lane’ [...] I just know I have to think about the laws and even the laws that I don’t know about” [Interview 4].

¹⁹ Interviews 2, 9, 10, and 11 reported quota time occurring at the end of the month. Interview 10 specified a date range: “from the 24th on”.

²⁰ Also Interviews 2, 4, and 9.

²¹ “There is a total power imbalance between couriers and cops. They are just looking for reasons to give you a ticket” [Interview 4].

²² “There are so many one ways in [the city] that if you stayed using them legally you would have to make a big L to get half a block across. So you will just cut across. It depends upon what makes sense right there at that time. Downtown is a grid and there are certain one ways and avenues, so you just figure it out and take the shortest distance between two points, whatever works. Except for [the Mall]; don’t ride there. I try to go in a straight line as much as the grid will let me, but sometimes the grid does not agree with your route and plus you have to think about three stops after that. You have to think about all that. It’s like playing connect the dots” [Interview 8].

²³ A similar belief in the necessity of illegality was found in Interview 5: “We can’t always be riding down the middle of the road. That’s just not how it works. If we totally abided by the rules of the road then there would be no point in having bicycle couriers. We would not be any faster than a car, maybe even slower.”

APPENDIX A

METHODOLOGY

This research took place in a major Canadian city during July of 2002. Location and chain-referral sampling techniques were used to gather the sample of 15 bicycle couriers. Location sampling is useful for populations that are geographically concentrated and hard to access and chain-referral sampling is useful for populations that are socially interconnected (Heckathorn, 2002). Location sampling involves simply approaching potential participants at locations where members of the group under study are known to frequent and asking if they are willing to participate. Chain-referral sampling, or snowball sampling, has the researcher make contacts with potential participants through referrals from one member to another (Heckathorn, 2002).

The research process was greatly facilitated by the author's prior employment as a bicycle courier in the city where the research took place. Couriers known to the author from prior experience were approached in a public place known to be a central hub for courier activity and informed of the research and asked to participate. For those individuals willing to participate, interviews were scheduled and conducted at a time and place suitable for them, which was often between the hours of 5pm and 7pm and which occurred at coffee shops, pubs, and public areas. Couriers who participated were asked to distribute a business card with a cellular phone number where the researcher could be contacted to other couriers whom they thought would be willing to participate. Sampling continued in this manner until 15 interviews had been conducted. In total, the interviewed were conducted over a period of 8 weekdays.

Selection criterion was based upon the length of time a courier had been employed in the field. The general preference was to include only those couriers who had been employed for a minimum of six months; however, two individuals who expressed interest in participating fell below this preference. At the time of the interview, participants were presented with a letter of consent (see Appendix B) and requested to sign and return this letter and a copy of the letter was given to participants. Semi-structured interviews were conducted using a pre-constructed interview guide that included 18 questions (see Appendix C). The duration of the interviews ranged between 45 to 120 minutes. The final sample consists of 13 males and 2 females. Although proactive attempts were made to form a more gender-diverse sample, the final composition of the sample is nonetheless overwhelmingly male. All participants had at the time of contact been employed as a courier for a substantial amount of time (ranging between 1 to 15 years) with the exception of two individuals who had three to six months' experience. The average age of the participants was approximately 28 years of age and ranged from 23 and 35 years old.

The strengths of the sampling strategies employed here lie in the capacity to access hidden populations, but they also introduce a number of biases to the research. The first is that the sample in this research is non-random and thus not representative, limiting the generalizability of data gathered by this approach (Heckathorn, 2002). This research however is not intended for generalization but seeks depth of understanding and perspective. Second, both chain-referral and location sampling methods are driven by voluntary and willing participation, and thus the control of the researcher in determining the final composition of the sample is limited. This is, I think, evident in

the number of female participants that this research was able to generate. Third, chain-referral sampling presents a potential bias in tapping into specific social networks that will limit the overall composition of the sample to particular circles (Heckathorn, 2002). The end result is a sample that reflects the relative homogeneity of that social network to the exclusion of those not linked into that network. By extension, socially isolated individuals will not be captured by chain-referral sampling. While cognizant that the strategy employed in this project introduces a certain degree of bias to the selection of respondents, this obstacle is inherent to the approach and is difficult to control.

The Research Ethics Board (REB) of the University of Windsor approved this research (see Appendices D and E). The sole concern expressed by the REB regarded chain-referral sampling. Specifically, the author was instructed by the REB not to contact any individual by phone that had not already consented to being contacted. The REB deemed face-to-face contact as implied consent to the project and hence any further contact (included by phone) would fall under the same implied consent. Hence any contact made without face-to-face discussion would not be consented to and ethical guidelines would be breached. To avoid this, couriers were asked to distribute the business card with cellular number for interested couriers to voluntarily call the research directly. Approximately one-quarter of the sample was recruited in this manner.

APPENDIX B
LETTER OF CONSENT

(on UW Letterhead)

CONSENT TO PARTICIPATE IN RESEARCH

Mobility and Control: The Experiences of Urban Space Among Bicycle Couriers

You are asked to participate in a research study conducted by Philip Boyle from the Department of Sociology and Anthropology at the University of Windsor. This research is being conducted for the thesis component of a Master's Degree in Sociology and Anthropology under the supervision of Dr. Daniel O'Connor.

If you have any questions or concerns about the research, please feel to contact Dr. Daniel O'Connor at the University of Windsor at (519) 253-3000, extension 3705.

- **PURPOSE OF THE STUDY**

This project intends to explore the experiences of urban space among the highly-mobile occupation of bicycle couriers.

- **PROCEDURES**

If you volunteer to participate in this study, I ask that you participate in an interview that will last approximately one hour. This interview will be conducted at a time and place that is suitable for you. With your consent, this interview will be recorded and transcribed at a later date. There will be no association between yourself and the data at any stage of the research, nor will any individual identifiers be used in the final report. The content of the interviews will not be discussed with any other individual participating in the project or with your employer. If you are interested in the findings of this project, arrangements will be made to contact you when the project concludes. The interviews conducted during this project may be stored for further investigation at a later date, but you will not be contacted to provide further information beyond the interview.

- **POTENTIAL RISKS AND DISCOMFORTS**

The risks associated with your involvement in this project are minimal. However, despite the precautions employed to ensure the confidentiality of the interview it is possible that some degree of privacy may be lost as a result of your participation in this project.

- **POTENTIAL BENEFITS TO SUBJECTS AND/OR TO SOCIETY**

This project will contribute to understandings of urban sociability as well as theoretical understandings about the relationship between everyday practices of a highly mobile occupational group and the systems of regulation they encounter.

- **PAYMENT FOR PARTICIPATION**

Participation in this study is voluntary, and as such you will not receive any payment or other compensation.

- **CONFIDENTIALITY**

Any information that is obtained in connection with this study and that can be identified with you will remain confidential and will be disclosed only with your permission.

To reduce any potential risks due to your involvement in this project, the original tapes of the interviews will be secured in a locked file cabinet accessible only to the principle researcher until after they have been transcribed, at which point they will be destroyed. Transcribed interviews will be saved electronically to a password protected computer only accessible only to the principle researcher as well.

Individual identifiers of participants, other individuals, or employers will be anonymously coded and will not be associated with the recorded interviews, transcriptions, or the final report.

Any information provided during this process will not be discussed with any individual outside of the immediate research team.

- **PARTICIPATION AND WITHDRAWAL**

You can choose whether to be in this study or not. If you volunteer to be in this study, you may withdraw at any time without consequences of any kind. You may exercise the option of removing your data from the study. You may also refuse to answer any questions you don't want to answer and still remain in the study. You may be withdrawn from the research if circumstances arise which warrant doing so.

- **RIGHTS OF RESEARCH SUBJECTS**

You may withdraw your consent at any time and discontinue participation without penalty. This study has been reviewed and received ethics clearance through the University of Windsor Research Ethics Board. If you have questions regarding your rights as a research subject, contact:

Research Ethics Co-ordinator
University of Windsor
Windsor, Ontario
N9B 3P4

Telephone: 519-253-3000, # 3916
E-mail: ethics@uwindsor.ca

- **SIGNATURE OF RESEARCH SUBJECT/LEGAL REPRESENTATIVE**

I understand the information provided for the study "The Experience and Production of Space" as described herein. My questions have been answered to my satisfaction, and I agree to participate in this study. I have been given a copy of this form.

Name of Subject

Signature of Subject

Date

- **SIGNATURE OF INVESTIGATOR**

In my judgement, the subject is voluntarily and knowingly giving informed consent to participate in this research study.

Signature of Investigator

Date

APPENDIX C

INTERVIEW GUIDE

1. General Information

1. How long have you been working as a courier?
2. How were you brought into this occupation?
3. What are your primary job responsibilities?
4. Do you have a dispatcher?
 1. If you have a dispatcher, by what means to you communicate?
 2. Would a new courier who has never done the job before be able to understand how you communicate with your dispatcher?
5. Are you required by your company to wear a uniform?
 1. Are you required by industry regulations or municipal by-laws to identify yourself as a courier in any way, such as identification tags?
6. What skills and knowledge are required to do this work?
 1. How did you acquire these skills and knowledge?
 2. When you started this work, was training provided?
 3. What was the nature of this training?
7. Do you enjoy doing this job?
 1. What makes for 'a good day'?
 2. What makes for 'a bad day'?
 3. Would you describe this job as enjoyable?
8. Do you enjoy being outside for a large part of the day?
 1. Are there drawbacks to being outside most of the time?
9. Would you recommend this job to other people?
 1. On what basis would you do/not?
10. How would you describe this job to someone who was thinking about becoming a courier?

2. Social Cohesion

1. While working during the day, do you spend much time with other couriers?
 1. When you do, where does this take place?
2. Does your company have a depot or office downtown where you go during the day when you are not working, or not busy?

3. Are there any other specific places of the city where you interact often with other couriers?
 4. Does this place have a symbolic importance to you?
 1. For example, is it a place where you would go to 'hang out' while not busy?
 5. While not working, such as in the evening or on weekend, do you interact often with people you know from work?
 1. Are there any places that you spend time with other couriers while not working?
 6. In general, would you say that there is much friendship among couriers?
3. Representations of Self/Social Relations
1. Is there a stereotypical image of bicycle couriers among other people downtown?
 1. Is this image deserved?
 2. Do you present yourself in a certain way to other people that you encounter during your work that makes it easier to work quickly?
 1. Can you use your identity as a courier to do things that you might not otherwise be able to do?
 3. How would you describe the relationship between couriers and other people that you encounter downtown, such as corporate employees?
 1. Do you think couriers are respected among people who are not couriers?
 4. What kind of bike do you ride?
 1. How important is your bike to you?
 2. Would you be able to do this job with any bike?
 5. What do you do with your bike when you are in buildings?
4. Spatial Practices
1. How important is your time while working?
 1. Is there an emphasis upon getting work done quickly?
 2. Do you ride your bike where by-laws say you should not, such as Stephen Avenue Mall or 7th Avenue?
 1. It is regular behaviour for you to ride your bike in these places?
 3. Are there other places where you are not supposed to ride your bike?
 1. What kinds of places?
 2. Do you always follow these rules?
 3. Are there certain times of the day, or perhaps days of the week, that this may change?

4. Do you need to be concerned about being caught by the police for doing this, or perhaps other similar actions?
 1. Are there things that you can do to avoid the police?
 2. If so, what can you do?
 3. If so, are there places that you know police are more likely to be at some times of the day, or perhaps some times of the week or month?
5. Have you ever received a ticket from the police for something you did while riding your bike?
 1. If so, why did you get the ticket?
 2. Will getting a ticket change the way you ride your bike while working?
6. Do you have to interact often with private security guards?
 1. When do you come into contact with them?
 2. Do they ever slow you down while you are doing your job?
 3. Are there things you do to avoid contact with private security officers?
7. When you have to travel quickly are there specific routes that you would use and ones that you would avoid?
 1. What makes some routes better than others?
 2. Are there specific places you would avoid?
 - (1) If so, why would you avoid them?
8. Are there places that you would avoid only a certain times of the day?
 1. What happens at these times that leads you to avoid these places?
9. When you need to get somewhere, do you consider the places that might slow you down, like the mall for example, and avoid it?
10. What kinds of obstacles do you encounter when you are travelling on the street?
 1. Do vehicles or pedestrians present obstacles to travelling quickly?
11. When you are riding your bike, are you constrained by traffic rules and regulations, or are there things you can do to get around these rules?
 1. For example, do red lights and one way streets determine the route that you will take?
 2. If so, what do you do to get around the rules?
 - (1) Can you give me an example?

3. Does it take skill to get around the rules?
4. Is there a pleasure in getting around the rules?
12. In general, is the way in which you travel determined by the rules and regulations of the road?
 1. Do you see these rules and regulations as applying to you?
13. Are there any situations where the rules about where you can and cannot ride your bike can be used to your advantage?
 1. For example, are there any “bikes only” lanes that you can use?
14. What kind of practical knowledge about traffic do you use when traveling?
 1. For example, is there a skill in being able to interpret vehicle and pedestrian traffic?
 2. What kind of advice would you give to someone about riding their bike in traffic?
15. Do you make use of back doors and alleyways if available?
 1. Is it easier to access buildings this way, or perhaps quicker?
16. Is it easier to do your job sometimes by not identifying yourself as a courier, such as by hiding your tags or not wearing a uniform?
 1. Are there times when it is essential that you identify yourself as a courier?
17. Do you situate yourself at certain places at certain times of the day where you think that it will be to your advantage?
 1. For example, where you think it is likely that work will come up?
18. Have you ever participated in an “alley cat” race?
 1. What are the rules for these races?
 2. What is the goal?
 3. Who organizes them?

APPENDIX D
RESEARCH ETHICS BOARD APPLICATION

UNIVERSITY OF WINDSOR
APPLICATION TO INVOLVE HUMAN SUBJECTS IN RESEARCH
Student Researchers

(Please complete, print and submit seven (7) copies of the Form to the Ethics Co-ordinator, Office of Research Services Chrysler Hall Tower, Room 309)

Title of Research Project: Mobility and Control: Enactments of Spatialization and Resistance in the Symbolic City

Date: April 25 2003 **Application Status:** New Addendum Renewal **REB #** _____

	NAME	DEPT & ADDRESS	PHONE/ EXT	E - MAIL
Primary Student Investigator ¹	Philip Boyle	Sociology and Anthropology University of Windsor	ext. 3979	phil_boyle007@yahoo.ca
Co-investigator(s)				
Faculty Supervisor(s) ²	Dr. Daniel O'Connor	Sociology and Anthropology University of Windsor	ext. 3705	doconnor@uwindsor.ca

Researchers from another institution who are a part of a research team, irrespective of their role, must seek clarification from their institutional REB as to the requirement for review and clearance.

For each researcher, please indicate if REB clearance is required or briefly provide the rationale for why it is not required:

¹ Student Investigator Assurance

I certify that the information provided in this application is complete and correct.

I understand that as Student Investigator, I have responsibility for the conduct of the study, the ethics performance of the project and the protection of the rights and welfare of human participants.

I agree to comply with the Tri-Council Policy Statement and all University of Windsor policies and procedures, governing the protection of human subjects in research.

Signature of Student Investigator: _____ Date: _____

² Faculty Supervisor Assurance

I certify that the information provided in this application is complete and correct.

I understand that as principal Faculty Investigator, I have ultimate responsibility for the conduct of the study, the ethics performance of the project and the protection of the rights and welfare of human participants.

I agree to comply with the Tri-Council Policy Statement and all University of Windsor policies and procedures, governing the protection of human subjects in research, including, but not limited to, the following:

- performing the project by qualified and appropriately trained personnel in accordance with REB protocol,
- implementing no changes to the REB approved protocol or consent form/statement without notification to the REB of the proposed changes and their subsequent approval of the REB
- promptly reporting significant adverse effects to the REB within five (5) working days of occurrence and submitting, at minimum, a progress report annually or in accordance with the terms of certification.

Signature of Faculty Supervisor: _____ Date: _____

1. Level of Project

- Faculty Research Undergraduate Masters
 Ph.D. Post Doctoral
 Administration Other (specify) _____

2. Funding Status

Is this project currently funded? Yes No

If NO, is funding to be sought? Yes No

Period of funding: FROM: (m) _____ (d) _____ (y) _____ TO: (m) _____ (d) _____ (y) _____

3. Details of Funding (Funded or Applied for)

Agency

- NSERC
 SSHRC
 Other (specify) _____

Has this application been submitted to another institutional REB? Yes No

If yes, provide the name of the board, date and decision. Attach a copy of the approval.

B. SUMMARY OF PROPOSED RESEARCH

1. Describe the purpose and background rationale for the proposed project, as well as the hypothesis(es)/research questions to be examined.

This project focuses on the experiences of bicycle couriers in city centres. Existing literature regarding the relationship between space and power in modern societies raises questions about the everyday experience of space which I plan to explore among this occupational group. I am specifically interested in how these individuals related to strategies of control and how this strategies are mapped out by couriers as they trave and negotiate city centres. A central hypothesis of this project is that couriers draw upon extensive knowledge of the city to seek out and use spaces where there is a lesser degree of surveillance and control to negotiate the city. As well, I hypothesize that couriers employ a variety of tactics to cope with strategies of control when situated in these contexts. Questions such as these have been raised in the literature regarding space and everyday experience but in different contexts and different activities (Ilcan, 1998; Borden, 2000). I expect this research to shed light upon the adaptations people develop while within contexts of structure and control from a perspective that has not yet been explored. This research will be conducted in Calgary during the months of July and August by interviews with individual bicycle couriers.

2. Methodology/Procedures

(YES / NO)

Do any of the procedures involve invasion of the body (e.g. touching, contact, attachment to instruments, withdrawal of specimens)?

Does the study involve the administration of prescribed or proscribed drugs?

Describe, sequentially and in detail, all procedures in which the research subjects will be involved (e.g. paper and pencil tasks, interviews, surveys, questionnaires, physical assessments, physiological tests, doses and methods of administration of drugs, time requirements, etc). Attach a copy of any questionnaires or test instruments.

Open-ended interviews will be conducted with individual couriers during which I will explore the occupational experiences of this group. As is often the case with interviews, the attached interview schedule will serve as a guide for the subject areas to be explored, but other areas of interest that arise during the course of the interview will be pursued. The interviews are expected to take approximately one hour to conduct and will be recorded with the consent of the participant to be transcribed at a later date.

3. Cite your experience with this kind of research.

My academic training as a graduate student provides me with a grounding in the area of research design and methodology, and I also have practical experience conducting interviews while employed as a research assistant at the University of Calgary. I have also been employed as a courier for approximately two years in Calgary during my undergraduate education which provides me with background familiarity with the experiences of this group.

4. Subjects Involved in the Study

Describe in detail the sample to be recruited including the number of subjects, gender, age range, any special characteristic and institutional affiliation or where located.

For the purposes of this project I will not be drawing a randomly selected sample. I will instead be relying on respondent driven chain-referral sampling, useful for accessing populations that are known to one another and are densely interconnected (Heckathorn, 2002). This method begins with a small number of initial contacts in the field who will be asked to provide further contacts who may be willing to participate in the project. Accordingly, it is difficult to state who will be included in this study at this point, but my aim is to conduct approximately 15 interviews. The initial criteria for participation is employment as a bicycle courier in Calgary for at least six months at the time of contact, regardless of the length of time employed by their company at that time. Aside from these broad considerations, no further selection criteria will be employed.

5. Recruitment Process

Describe how and from what sources the subjects will be recruited. Indicate where the study will take place. Describe any possible relationship between investigator(s) and subjects(s) (e.g. instructor - student; manager - employee). Attach a copy of any poster(s), advertisement(s) or letter(s) to be used for recruitment.

Initial contacts will be made in the field with approximately five individuals with whom I am familiar from my previous employment in the industry. If these individuals are willing to participate, arrangements will be made to conduct the interview at a time and place that is suitable for them. Participants will be presented with and requested to sign a Letter of Consent at the time of the interview and the contents of the Letter will be discussed as well. The initial participants will be asked to suggest further individuals who may be willing and suitable participants for subsequent contact. To facilitate the referral process, a card containing the contact information for the primary researcher will be used for distribution to potential respondents. At no time will a participant be contacted by telephone without their prior consent. Initial participants with whom I am not familiar with may also be contacted in the field at a location familiar to myself as a central hub for courier activity in the city. While cognizant of the limitations of this methodology, such as the non-randomness of the sample and the danger of recruiting members of one particular social network, this approach is useful for groups that are socially and geographically interconnected and will provide data of considerable depth.

6. Compensation of Subjects

(YES / NO)

Will subjects receive compensation for participation?

Financial

In-Kind

Other (Specify) _____

If yes, please provide details. If subjects (s) choose to withdraw, how will you deal with compensation?

Subjects will not be provided with compensation.

7. Feedback to Subjects

Whenever possible, upon completion of the study, subjects should be informed of the results. Describe below the arrangements for provision of this feedback.

A record of contact information will be retained separate from interview data for the purposes of dissemination. Electronic mail will be the preferable method of contact, but in the event that some participants do not have access to electronic mail then mailing addresses will be obtained. Participants will be notified when a summary is available for them.

C. POTENTIAL BENEFITS FROM THE STUDY

Discuss any potential direct benefits to subjects from their involvement in the project. Comment on the (potential) benefits to (the scientific community)/society that would justify involvement of subjects in this study.

A preliminary review of the literature has revealed no sociological studies of this particular occupation. Thus it is intended that this thesis will contribute to the literature regarding the relationship between individuals and spaces of control from a perspective that has not been explored. Consideration of these questions will provide further illumination into everyday relations of power and space in urban contexts at the level of the individual actor.

D. POTENTIAL RISKS OF THE STUDY

(YES / NO)

- a) Do you deceive them in any way? YES NO
- b) Are there any physical risks /harm? YES NO
- c) Are there any psychological risks/ harm? (Might a subject feel demeaned, embarrassed, worried or upset?) YES NO
- d) Are there any social risks/harm? (Possible loss of status, privacy, and/or reputation?) YES NO

1. Describe the known and anticipated risks of the proposed research, specifying the particular risk(s)/harm associated with each procedure or task. Consider, physical, psychological, emotional and social risks/harm.

The inquiries into the daily activities of bicycle couriers may result in disclosure of activities where municipal and/or provincial laws are violated, such as street use bylaws or the provincial Highway Traffic Act. I do not expect, however, that the disclosure of these behaviours to present a risk to participants beyond the risks normally experienced by couriers. It is also possible that the participant may divulge sensitive information regarding their employer that and possibly face managerial sanctions if this information were released. While I will be soliciting information about the general framework for the occupation that may be specific to a company, such as dress requirements or methods of communication, I will not be requesting sensitive information such as rates of pay or client information. If information such as this does arise during the interview, it will not be included in the final report.

2. Describe how the potential risks to the subjects will be minimized.

Participants will be informed of these risks in the Letter of Consent as well as verbally at the time of the interview. To reduce the potential risks outlined above, the recorded interviews will be kept in a locked file cabinet accessible only to myself, and transcribed interviews will be saved to a password protected computer only accessible to myself as well. Individual identifiers of participants, other individuals, or employers will be anonymously coded and will not be associated with either the recorded interviews nor with the electronic transcriptions. Subsequent to transcription, the original tapes of the interviews will be destroyed. Upon completion of the study, any remaining interview materials such as code-books or printed interviews will be destroyed save for the electronic transcriptions which will be retained for possible future use.

E. INFORMATION AND CONSENT PROCESS

1. Attach a copy of a Letter of Information describing the procedures and a separate Consent Form. If written consent will not/cannot be obtained or is considered inadvisable, justify this and outline the process to be used to otherwise fully inform participants.

See attached Letter of Consent.

2. Are subjects competent to consent? If not, describe the process to be used to obtain permission of parent or guardian. Attach a copy of an information-permission letter to be used. (YES / NO)

3. Withdrawal from Study (YES / NO)

Do subjects have the right to withdraw at any time during and after the research project?

Are subjects to be informed of this right?

Describe the process to be used to inform subjects of their withdrawal right.

Participants are informed of the voluntary nature of their involvement and the right to withdraw their participation and interview data from analysis in the Letter of Consent. These rights will also be discussed at the time of the interview.

F. CONFIDENTIALITY

(YES / NO)

Will the data be treated as confidential?

1. Describe the procedures to be used to ensure anonymity of subjects and confidentiality of data both during the conduct of the research and in the release of its findings. Explain how written records, video/audio tapes and questionnaires will be secured, and provide details of their final disposal:

Original tapes of the interviews will be secured in a locked file cabinet accessible only to myself until they have been transcribed, after which the tapes will be destroyed. Transcribed interviews will be saved to a password protected computer only accessible to myself as well. Individual identifiers of either participants, other individuals, or employers will be anonymously coded and will not be associated with either the recorded interviews nor with the digitized transcriptions.

G. DECEPTION

(YES / NO)

Will deception be used in this study?

If yes, please describe and justify the need for deception. Explain the debriefing procedures to be used, and attach a copy of the written debriefing.

REB REVIEW OF ONGOING RESEARCH (Minimum Requirement: Annual Report)

Please propose a continuing review process (beyond the annual report) you deem to be appropriate for this research project/program.

This project will be reviewed continually by the faculty supervisor.

Use the remainder of this page and an additional page if more space is required to complete any sections of the form, using appropriate headings.

Will the results of this research be used in a way to create financial gain for the researcher? How will conflict of interests be dealt with?

This project is not intended to create financial gain.

H. SUBSEQUENT USE OF DATA

Will the data obtained from the subjects of this research project be used in subsequent research studies. If so, please indicate on the Consent Form that the data may be used in other research studies. Subjects may be given the option regarding the use of their data.

The anonymous data will be retained and may be used for further investigation and analysis at a later date. The participants will be notified of this in the Letter of Consent.

References Cited

Borden, I. (2000). Speaking the City: Skateboarding Subculture and Recompositions of the Urban Realm. Research in Urban Sociology 5: 135-154.

Heckathorn, D. (2002). Respondent-Driven Sampling II: Deriving Valid Population Estimates from Chain-Referral Samples of Hidden Populations. Social Problems 49(1): 11-34.

Iican, S. (1998). Occupying the Margins: On Spacing Gender and Gendering Space. Space and Culture 3(5): 5-26.

APPENDIX E
RESEARCH ETHICS BOARD CLEARANCE LETTER

REFERENCES

- Allen, J. (2003). Lost Geographies of Power. Oxford: Blackwell.
- Amin, A., and Thrift, N. (2002). Cities: Reimagining the Urban. Oxford: Blackwell.
- Bauman, Z. (1998). Urban Space Wars. Space and Culture 3: 109-123.
- Bauman, Z. (2000). Liquid Modernity. Cambridge: Polity Press.
- Blum, A. (2003). The Imaginative Structure of the City. Montreal: McGill-Queens University Press.
- Certeau, M. de (1984). The Practice of Everyday Life. Berkeley: University of Berkeley Press.
- Conley, T. (1998). Mapping in the Folds: Deleuze *Cartographe*. Discourse 20(3): 123-138.
- Cresswell, T. (1997). Imagining the Nomad: Mobility and the Postmodern Primitive. In G. Benko and U. Strohmayr (eds.), Space and Social Theory. Massachusetts: Blackwell.
- Cresswell, T. (1996). In Place/Out of Place: Geography, Ideology, and Transgression. Minneapolis: University of Minnesota Press.
- Cresswell, T. (1999). Embodiment, Power, and the Politics of Mobility: The Case of Female Tramps and Hobos. Transactions of the British Institute of Geographers 24: 175-192.
- Cresswell, T. (2000). The Production of Mobilities. New Formations 43: 11-25.
- Culley, T. (2002). The Immortal Class: Bike Messengers and the Cult of Human Power. New York: Random House.
- Davis, M. (1992). City of Quartz. New York: Vintage Books.
- Deleuze, G. (1988). Foucault. Minnesota: University of Minnesota Press.
- Deleuze, G. (1992). Postscript on the Societies of Control. October 59: 3-7.
- Deleuze, G. (2001). Pure Immanence. New York: Zone Books.
- Deleuze, G., and Guattari, F. (1986). Nomadology: The War Machine. New York: Semiotext(e).

- Deleuze, G., and Guattari, F. (1987). A Thousand Plateaus: Capitalism and Schizophrenia. Minnesota: University of Minnesota Press.
- Dennis, R. (2000). Modern London. In M. Daunton (ed.), The Cambridge Urban History of Britain Vol. III 1840-1950. Cambridge: Cambridge University Press.
- Erikson, R. and Haggerty, K. (1997). Policing the Risk Society. Toronto: University of Toronto Press.
- Feeley, M. and Simon, J. (1992). The New Penology: Notes on the Emerging Strategy of Corrections and its Implications. Criminology 30(4): 449-474.
- Feeley, M. and Simon, J. (1994). Actuarial Justice: Power/Knowledge in Contemporary Criminal Justice. In D. Nelken (ed.), The Futures of Criminology. London: Sage.
- Flusty, S. (2000). Thrashing Downtown: Play as Resistance to the Spatial and Representational Regulation of Los Angeles. Cities 17(2): 149 – 158.
- Foucault, M. (1977). Discipline and Punish: The Birth of the Prison. New York: Vintage Books.
- Foucault, M. (1983). The Subject and Power. In P. Rabinow and M. Dreyfus (eds.), Michel Foucault: Beyond Structuralism and Hermeneutics. Chicago: University of Chicago Press.
- Fox-Gotham, K, and Brumley, K. (2002). Using Space: Agency and Identity in a Public-Housing Development. City and Community 1(3): 267-288.
- Giddens, A. (1984). The Constitution of Society. Berkeley: University of California Press.
- Giddens, A. (1986). Action, Subjectivity, and the Constitution of Meaning. Social Research 53(3): 529-545.
- Golledge, R. (1978). Learning About Urban Environments. In T. Carlstein, D. Parkes, and N. Thrift (eds.). Making Sense of Time. London: Edward Arnold Publishers.
- Gould, P., and White, R. (1986). Mental Maps. Boston: Allen and Unwin.
- Gregson, N., and Rose, G. (2000). Taking Butler Elsewhere: Performativities, Spatialities and Subjectivities. Environment and Planning D 18: 433-452.
- Grossberg, L. (2000). (Re)con-figuring Space: Defining a Project. Space and Culture 4/5: 13-22.
- Grosz, E. (1995). Space, Time, and Bodies. London: Routledge.

- Hall, S. (1989). Cities of Tomorrow. Oxford: Blackwell.
- Hannah, M. (1997). Imperfect Panopticism: Envisioning the Construction of Normal Lives. In G. Benko and U. Strohmayer (eds.), Space and Social Theory. Malden: Blackwell.
- Heckathorn, D. (2002). Respondent-Driven Sampling II: Deriving Valid Population Estimates from Chair-Referral Samples of Hidden Populations. Social Problems 49(1): 11-34.
- Herbert, S. (1997). Policing Space: Territoriality and the Los Angeles Police Department. Minneapolis: University of Minnesota Press.
- Hermer, J., and Hunt, A. (1996). Official Graffiti of the Everyday. Law and Society Review 30: 455-480.
- Hubbard, P. (1999). Sex and the City: Geographies of prostitution in the urban West. Aldershot: Ashgate Publishing Company.
- Ilcan, S. (1998). Occupying the Margins: On Spacing Gender and Gendering Space. Space and Culture 3: 5-26.
- Lees, L. (1998). Urban Renaissance and the Street: Spaces of Control and Contestation. In N. Fyfe (ed.), Images of the Street: Planning, Identity, and Control in Public Space. London: Routledge.
- Lefebvre, H. (1991). The Production of Space. Oxford: Blackwell.
- Lint, W. de. (2000). Arresting the Eye: Surveillance, Social Control and Resistance. Space and Culture 7/8/9: 21-49.
- Lynch, K. (1960). The Image of the City. Cambridge: M.I.T. Press.
- Massey, D. (1993). Power-geometry and a Progressive Sense of Place. In J. Bird, B. Curtis, T. Putnam, G. Robertson, and L. Tickner (eds.), Mapping the Futures. London: Routledge.
- Mitchell, D. (1995). The End of Public Space? People's Park, Definitions of the Public, and Democracy. Annals of the Association of American Geographers 85(1): 108-133.
- Mitchell, D. (2003). The Right to the City. New York: Guilford Press.
- Mol, A., and Law, J. (1994). Regions, Networks and Fluids: Anemia and Social Topography. Social Studies of Science 24: 641-671.

- Munt, S. (1998). *Sisters in Exile: the Lesbian Nation*. In R. Ainley (ed.), New Frontiers of Space, Bodies, and Gender. New York: Routledge.
- Nast, H. (1998). Unsexy Geographies. Gender, Place and Culture 5(2): 191-206.
- Natter, W. and Jones III, J.P. (1997). Identity, Space, and other Uncertainties. In G. Benko and U. Strohmayr (eds.), Space and Social Theory. Massachusetts: Blackwell.
- O'Connor, D. (2002). Mediated Associations: Cinematic Dimensions of Social Theory. Montreal: McGill-Queens University Press.
- Osborne, T., and Rose, N. (1999). Governing Cities: Notes on the Spatialization of Virtue. Environment and Planning 17: 737-760.
- Parkes, D., and Thrift, N. (1980). Times, Spaces, and Places: A Chronographic Perspective. New York: John Wiley and Sons.
- Rajchman, J. (2000). The Deleuze Connection. Boston: Massachusetts Institute of Technology.
- Rajchman, J. (2001). Introduction. In G. Deleuze, Pure Immanence. New York: Zone Books.
- Rigakos, G., and Greener, E. (2000). Bubbles of Governance: Private Policing and the Law in Canada. Canadian Journal of Law and Society 15(1): 145-185.
- Rose, M. (2002). The Seductions of Resistance: Power, Politics, and a Performative Style of Systems. Environment and Planning 20: 383-400.
- Rose, N. (1999). Powers of Freedom. Cambridge: Cambridge University Press.
- Secor, A. (2002). The Veil and Urban Space in Istanbul: Women's Dress, Mobility and Islamic Knowledge. Gender, Place and Culture 9(1): 5-22
- Seigworth, G. (2000). Banality for Cultural Studies. Cultural Studies 14(2): 227-268.
- Shearing, C. and Stenning, P. (1983). Private Security: Implications for Social Control. Social Problems 30(5): 493-506.
- Shearing, C. and Stenning, P. (1984). From the Panopticon to Disney World: The Development of Discipline. In A. Doob and E. Greenspan (eds.), Perspectives in Criminal Law. Aurora: Canada Law Books.
- Shields, R. (1997). Flow as a New Paradigm. Space and Culture 1: 1-7.

- Shields, R. (1997a). Spatial Stress and Resistance. In G. Benko and U. Strohmayr (eds.), Space and Social Theory. Malden: Blackwell.
- Shields, R. (2003). Visualicity – On Urban Visibility and Invisibility. Unpublished Manuscript. Available at: <http://www.carleton.ca/~rshields/index.htm>. Date Accessed: March 18 2004.
- Sibley, D. (1988). Survey 13: Purification of Space. Environment and Planning D. 6: 409-421.
- Taylor, A. (1998). Lesbian Space. In R. Ainley (ed.), New Frontiers of Space, Bodies, and Gender. New York: Routledge.
- Thrift, N. (1977). An Introduction to Time Geography. London: Institute of British Geographers.
- Toiskallio, K. (2002). The Impersonal Flaneur: Navigation Styles of Social Agents in Urban Traffic. Space and Culture 5(2): 169-184.
- Tuan, Y. (1978). Space, Time, Place: A Humanistic Frame. In T. Carlstein, D. Parkes, and N. Thrift (eds.), Making Sense of Time. London: Edward Arnold Publishers.
- Urry, J. (1991). Space and Time in Giddens' Social Theory. In C. Bryant and D. Jary (eds.), Giddens' Theory of Structuration: A Critical Appreciation. London: Routledge.
- Urry, J. (1996). Sociology of Time and Space. In B. Turner (ed.), The Blackwell Companion to Social Theory. London: Blackwell.
- Urry, J. (2000). Sociology Beyond Societies. London: Blackwell.
- Urry, J. (2000a). Mobile Sociology. British Journal of Sociology. 51(1): 185-203.
- Valverde, M., and Cirak, M. (2003). Governing Bodies, Creating Gay Spaces. British Journal of Criminology 43: 102-121.
- Virilio, P. (1995). The Art of the Motor. Minnesota: University of Minnesota Press.
- Werlen, B. (1993). Society, Action and Space. London: Routledge.

VITA AUCTORIS

Philip Boyle was born and raised in Calgary, Alberta where he graduated from Lord Beaverbrook High School in 1995. After earning a Bachelor's of Applied Justice Studies from Mount Royal College in 2001, he relocated to the University of Windsor where he is currently studying for a Master of Arts in Sociology. In September 2004 he will commence doctoral studies in sociology at the University of Alberta.