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**Driving Driven:
Urban Transit Operators, Hypertension, and Stress(ed) Management**

by

Beverly Ann Davenport

DISSERTATION

Submitted in partial satisfaction of the requirements for the degree of

DOCTOR OF PHILOSOPHY

in

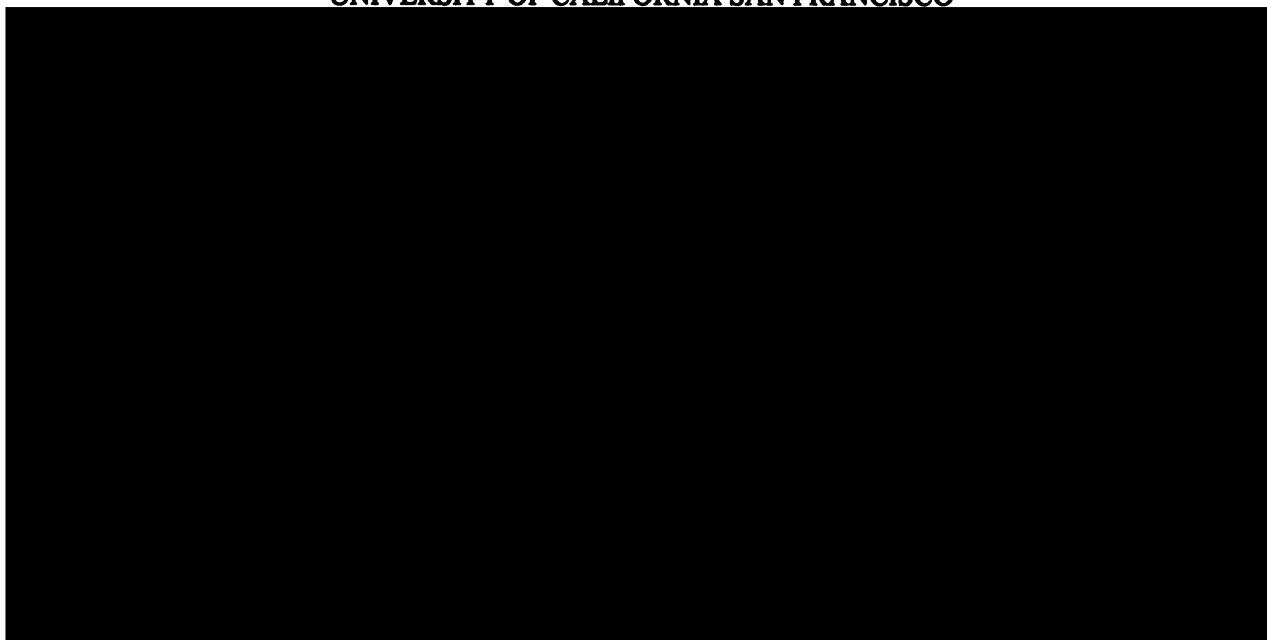
Medical Anthropology

in the

GRADUATE DIVISIONS

of the

UNIVERSITY OF CALIFORNIA SAN FRANCISCO



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Acknowledgments and Dedication

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This dissertation is dedicated to all my teachers, above all Alice and Horace Davenport – Mommy and Daddy, without whose unselfish love and stalwart faith, Myscuriettes Unlimited would have been an impossibility.

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Each of us must find our work and do it.

– Audre Lorde

What is precious is never to forget
The delight of the blood drawn from ageless springs
Breaking through rocks in worlds before our earth;
Never to deny its pleasure in the simple morning light,
Nor its grave evening demand for love;
Never to allow gradually the traffic to smother
With noise and fog the flowering of the spirit.

– Sir Stephen Spender,
“I Think Continually of Those Who Were Truly Great”

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ABSTRACT

Driving Driven: Urban Transit Operators, Hypertension, and Stress(ed) Management

by: Beverly Ann Davenport, M.S.P.H.

The question of how the social gets in the body has recently become more salient. I address an aspect of that question through an ethnographic study of San Francisco Municipal Railway transit operators. Grounded in medical anthropology, I use material from social epidemiology, occupational health, and psychology to argue that the key to understanding the high rates of hypertension within this population – an internationally observed phenomenon – is their everyday experience of threats to their social selves. My analysis explores the interconnected meanings of work, work-related stress and hypertension and uses practice theory to situate these meanings in the larger political-economic and social context of blue collar service work in the United States.

This research investigated how urban transit operators with hypertension managed their blood pressure while coping with the difficult circumstances of their work lives. The study looked at how bus drivers learned from their doctors to take care of themselves and how they translated medical advice in their daily routines. In contrast to other research results, I found that this largely black study population was aware of the dangers of hypertension and actively attempted to manage it through both lifestyle modifications and regular use of prescribed medications. I found that their motivation for self care could be found in their social ties and influences, including the relationships they had with their physicians. Though health knowledge mattered, it was the “reasons of the heart” that impelled and sustained their healthy choices.

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This work highlights the power of the stress discourse to obfuscate the primary cause of hypertension in the lives of these men and women. My data show that despite the transit operators' awareness of occupational sources of stress in their lives, they did not use this to explain their own hypertension. Instead, they relied on individual biological explanations. Further, they did not push their union to demand changes in the structure of their work. The discourse conflated work stress with "the stress of life," making it seem natural and inevitable – something that individuals must manage – rather than something that individuals acting in social groups could change.

Judith S. Barkin
12/16/04

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CHAPTER ONE

INTRODUCTION

In spinning a thread we twist fibre on fibre. And the strength of the fibre does not reside in the fact that some one fibre runs through its whole length, but in the overlapping of many fibres.

– Ludwig Wittgenstein, *Philosophical Investigations*

Late in my field work among San Francisco transit operators¹ with hypertension, I met Billy, an operator who became one of my key research participants. He was an open-faced friendly man, practical, direct and funny. Though I had spent many hours the previous autumn sitting in the waiting room of the Employee Health Clinic at San Francisco General Hospital attempting to recruit bus drivers to be in my study, it was through Billy, whom I met by accident while riding the bus several days after September 11, 2001, that I actually came to know the majority of the people who told me about their experiences of dealing with hypertension and working at San Francisco Municipal Railway, commonly referred to as “Muni.”

A lot of that fall of 2001 I spent going on “ride-alongs.” I rode with transit operators for their entire work shift, watching the ebb and flow of passengers on the bus, listening to the transit operators’ interpretations of passenger behavior – for example, the significance of the various ways riders show transit operators their transfers and bus passes. I tried to understand the dance, in bus driver parlance, of “leaders” and “followers,” that is, the bus in front of you and the one behind you. When they spelled it

¹Transit operator is the preferred and official term for the job; operator is often used as shorthand. This term accurately reflects the variety of equipment that employees of Muni must drive: trolley-buses, historic streetcars, light rail vehicles, cable cars, in addition to diesel-fueled buses. Occasionally I will use “driver” or “bus driver” in the text simply to vary the language or when referring to the occupation more generally.

out for me, I could see how, when this dance is done gracefully, everyone's day goes better, but when it's not, it can make for a hard shift. Oftentimes I conducted interviews with the transit operators during ride-alongs, me sitting in the shotgun position, next to the bus door, yelling over the whine of the engine and straining to hear my informants' responses.

One day in October, I was riding-along with Billy. At mid-morning, just at the tail end of rush hour, I got off the bus when we arrived at the Transbay Terminal to get some fresh air and stretch. When I was walking back to the bus, I could see him talking and laughing with another transit operator. They had separated by the time I approached, but Billy was still chuckling as I approached the bus. Settling into his seat, he turned to me and said, "I was just telling James that the stress lady was riding with me today." I registered amused surprise. "The stress lady? Is that your name for me or is it something other people call me too?" He allowed as how it was the general nickname for me around the property.²

I knew that I had been handed a big clue about what my dissertation was really about. I was interested in chronic health problems and had opportunistically settled on Muni as a research site because I was aware of the high rates of hypertension among the men and women who drove the buses. I had been asking the transit operators to tell me

²*This and subsequent unfamiliar terms will be footnoted and defined the first time they occur in the text. Appendix A contains a glossary of all terms defined in footnotes. Bolded words in the footnote indicate that they are glossary items.*

The **property** is slang for the premises of the Municipal Railway. You will often here the expression, "When I first came *on the property*," meaning, "when I started working for Muni."

about their experiences with their doctors and with high blood pressure; they kept talking about stress. To find out that my nickname was ‘the stress lady’ was a compliment (I felt “known” enough to have a nickname and trusted enough to be told what it was), but it was also a major heads-up: I had a different puzzle to solve than the one to which I had so diligently been directing my attention up until that point.

Some months later, a friend and fellow graduate student in medical sociology told me how she always thought of me when she rode buses around the city. She was especially solicitous of filipino³ transit operators because she came from the same ethnic background, and often asked them how they were doing, purely conversationally, when she boarded their buses. She told me they often mentioned their ‘*alta presión*’ (high blood pressure) to her. When she told me this I realized clearly that bus drivers’ talk about their health might be a way of talking about their jobs.

This dissertation explores the interconnected meanings of work, work-related stress and hypertension for a group of San Francisco Municipal Railway transit operators. Using practice theory as the basis of my analysis, I situate these meanings in the larger

³The use of racial and ethnic categories, particularly in the American context, deserves careful scrutiny because these categories can and have been manipulated to make claims about the presence or absence of inherent, “natural” qualities, often in support of a policy agenda that favors the societal status quo (Gould 1981). This concern has been raised specifically with regard to the search for a genetic explanation for differential rates of hypertension (Cooper 1991). In much biomedical and epidemiologic research the concept of race has been insufficiently problematized (Fullilove 1998; Hahn 1992; Hahn and Stroup 1994). Within anthropology race was debunked as a meaningful biological category long ago (Benedict 1943; Boas 1940; Washburn 1963). I use the terms ‘race’, ‘ethnicity’, and associated specific descriptors such as black, white, latino, etc., to refer to social constructions of human difference as shaped by the history of the United States. I have chosen to use the lower case when using racial or ethnic terms specifically to prevent further reification of these categories.

political-economic and social context of blue collar service work in the United States.

This introduction has four tasks: 1) to elaborate the questions that guided both my research and my analysis, including helping you the reader, to understand what is at stake in this research; 2) to introduce the theory supporting my argument, 3) to give you an overview of the rest of this dissertation – a map, if you will, to guide you through the terrain you are about to traverse, and finally, 4) to briefly describe how I did the research.

RESEARCH QUESTIONS

My analysis is based on participant-observation research with urban mass transit operators with hypertension. I followed these men and women over the course of their work days, in their doctor' offices and into their private lives in order to document how they managed their high blood pressure. The original aim of my research was to explain how, in the course of their daily lives, transit operators with hypertension understood, incorporated and enacted the medical advice they received. I sought answers to the following questions: How do people with hypertension learn to manage their health? From whom and how do they acquire knowledge about it? What happens in interactions with health professionals? What gets communicated in those settings? I wondered whether there might be a relationship between formal knowledge about the condition and the degree to which hypertension is well controlled. I also wanted to know how people with hypertension lived their lives. What practical sense did they make of medical advice/information? What were their everyday behaviors for taking care of this problem? What were the supports and/or obstacles in their lives that aided or impeded their ability to care for themselves? What motivated people who were “successful” at managing their

hypertension? Finally, I was interested in ferreting out what hypertension meant for people: how did they explain its onset? How did this explanation influence their practices of care, and did race, class, gender or age play a role these explanations?

The stakes implicit in these questions pertain to the growing numbers of people with chronic disease in the United States. Although hypertension is not a “disease” per se (Kaplan 1998), it is a condition that if left uncontrolled has a very high probability of leading to cardiovascular disease resulting in either myocardial infarction (heart attack), stroke or kidney failure. In the United States, where so-called ‘diseases of lifestyle’ have been on the rise, there is a practical need to understand how people come to adopt health-related behaviors when they learn that they have such a condition. Such questions plague doctors and public health officials and are generally categorized under the umbrella term “adherence” (to health regimens). My research took a crack at addressing one piece of the adherence mystery. But there is more at stake here than that.

Hypertension is very common in the United States; prevalence in the adult population is estimated at more than 28% and rising (JNC 7 2003a). (Its distribution within the population however, is uneven. Prevalence is inversely proportional to class and/or occupational status. Blacks have higher rates than many other groups. (I address hypertension at greater length in Chapter Five, in the section titled “A Primer on Hypertension.”)

There is a substantial body of research that attempts to address the social, cultural and psychological factors at play in the incidence and prevalence of hypertension in both populations and individuals (for example, Dressler and Bindon 1997; Dressler, Grell, and Viteri 1995; Harburg, Erfur, Chapel, Hauenstein, Schull, and Schork 1973; Syme and al.

1974; Syme and Torfs 1978). Social anthropological theory suggests that social relations of difference are “inscribed in the body”(Scheper-Hughes and Lock 1987) . Bourdieu uses the term ‘habitus’ to describe socially learned ways of being in one’s body which are distinguishable across social classes (Bourdieu 1984). Some epidemiologic research offers some support to these ideas. For example, the inverse association between social class and health status known as the gradient effect (Adler, Boyce, Chesney, Cohen, Folkman, Kahn, and Syme 1994) is a tantalizing clue for researchers interested in systemic, macro-structural aspects of disease causation. Some epidemiologists are beginning to look at racial differences in disease the same way (Krieger 1989; Krieger 2001; Krieger, Rowley, Herman, Avery, and Phillips 1993; Krieger and Sidney 1996). My focus on an occupational group, transit operators, examines their work environment in order to make another small step toward unraveling the mystery of how the social gets in the body.

In seeking out the meaning of hypertension for those urban transit operators who permitted me such freedom of access inside their world, I stumbled into the swampy ground between occupational health and personal wellness, where competing stress discourses are like quicksand, or half-sunken tree trunks that might turn into alligators or vines that might or might not be poisonous snakes, ready to strike. There was no way to answer the narrow questions of my research proposal without addressing the discursive frame in which these questions were set. Thus arose another set of questions that had as their starting point my participants’ elaboration of the meaning of hypertension in their lives.

When I talked to transit operators I got the sense that meaning was “marshaled,” that is to say, transit operators were *bricoleurs*, drawing on ideas that were already

circulating in the culture (media, biomedicine) and using those ideas to create their own understandings (Levi-Strauss 1962, especially as interpreted by de Certeau 1984:29-42). They were not passive recipients, they took pieces of information and actively cobbled together personal meaning – that is, a set of ideas and practices that they used and re-used in their daily lives.

As hinted at in the opening vignette of this chapter, I found that “stress” played an important role in operators’ meaning-making. But what were the operators talking about when they use the term “stress?” What are the uses and meanings of “stress” for workers in a blue collar service industry? How do these notions connect to the related discourses in the biomedical and human sciences – stress as scientific reification, stress as everyday idea, stress as “materialized” in human bodies? Here I draw on Cohen’s explanation for his use of the word, “materialize” to talk about the way scientists in India characterize Indians with Alzheimer’s disease as compared to non-Indian Europeans or North Americans:

I use *materialize* here rather than, for example, *construct* to avoid the frequent misreading of social constructionist language as idealist and antimaterialist by both its critics and some of its adherents and to suggest that any theory of the social and the subjective must articulate itself in careful relation to body and environment. This entails not only taking the body as the site of the social in the sense of Mauss (1973 (1935)) and Bourdieu (1990) but as a more robust presence in theory...(Cohen 1999:310, note 8)(author’s emphasis).

Similarly, what I am talking about is a kind of materialization, in addition to the meaning-making process that the operators employ when talking about their health. And re-emphasizing Cohen’s point, these bodies have flesh and blood, and the meanings that are made affect the flesh and the blood of the bodies from which those meanings arise.

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What do urban transit operators think about the relationship between their personal health and the conditions of their work?

I have concluded that discourses about hypertension and stress are transforming a macro-social, occupational health problem into a personal health problem. The international epidemiologic research on transit operators is voluminous and difficult to refute: as an occupational group, bus drivers are at significantly higher risk for hypertension than comparable others (Evans and Johansson 1998; Kompier 1996; Ragland, Krause, Greiner, and Fisher 1998). Yet at Muni, despite fifteen years of cooperative research with epidemiologists associated with U.C. Berkeley, the main message from management and union leaders was “stress management,” that is, an emphasis on **individual** solutions to what is implicitly defined as a personal problem. That this has happened is a powerful illustration of Foucault’s observations about the capillary action of biopower and its ability to regulate and discipline the bodies of individual and populations (Foucault 1990 [1978]:93; Foucault 1991 [1977]:224, 294-296). Even the stories the bus drivers told me gave voice to the hegemonic messages that swirl, unchallenged, in the social cosmos. Countering that which is taken for granted, seen as “natural,” “of course,” requires an “epistemological rupture” (Bourdieu and Wacquant 1992:251). I found some evidence that speaks to a resistance to the prevailing ideology. I will speak more of this in Chapters Five, Six and Seven.

Lying behind the questions I have posed above are many of the key dualisms of social theory: emotion v. reason, emotion v. cognition, agency v. structure, mind v. body, change v. homeostasis, and one at the foundation of the medical anthropology: the nexus of social and the biological in the human condition (Wilce 2003, “Introduction”). Though

my writing perforce will set up analytical **dualities**, my intent is not to perpetuate **dualisms**, a distinction drawn well by Williams who defines the latter as “ideological privileging, dominant through the course of Western culture and history, of one term over the other” (Williams 2000:560-561). In general, the theoretical approach I used was one that attempts to bridge these dualisms by emphasizing the relations between seeming oppositions. I am talking about practice theory.

THEORETICAL FRAMEWORK

Practice theory (Bourdieu 1990; Bourdieu and Wacquant 1992; Certeau 1984; Certeau, Giard, and Mayol 1998; Giddens 1979; Ortner 1984; Ortner 1996) asks one to consider social things “relationally”, that is, to pay close attention to the ways that social objects both constitute and are constituted by their unceasingly changing relations to each other.⁴ Further, it suggests that the best understanding of these relations comes from a thorough understanding of their history. Thus, in order to understand how a person with a

⁴Practice translates *praxis*, a term that originated with Aristotle, who used it to mean ‘doing.’ (Honderich 1995:713). Its modern meaning comes to us via Marx. What Marx means by practice/*praxis* is the social activity of men and women as sensuous (that is, conscious, sensing) beings in the world. Marx argues that the trouble with philosophic approaches to understanding the problems of mankind is that they have depended on idealizations, rather than starting from the material basis of human existence in nature. The Eighth Thesis on Feuerbach states this concisely: “All social life is essentially practical. All mysteries which lead theory to mysticism find their rational solution in human practice and in the comprehension of this practice” (Marx 1977 [1845]:157). Though some authors consider Marx’s writing deterministic, at least in his early work, Marx found a role for human agency: “As society produces man as man, **so it is produced by man**”(Marx 1977 [1844]:90, emphasis added). In *Theses on Feuerbach*, Marx describes the simultaneous educating and changing of self **and** social circumstances as “revolutionary practice” (Marx 1977 [1845]:156).

“risky” chronic condition comes to understand, deal with, and manage that condition, it is not enough to observe him or her in the doctor’s office, but rather to participate as much as possible in the day-to-day activities of his or her life, where understanding and knowledge are translated into action and become embodied.

Practice theory was used to shape the study’s questions, design and analysis. This project was uniquely suited for such an approach since it very consciously addressed the relationality between individual agents and social structures as well as between fields of power within society in a way that emphasizes their dynamic interplay. Practice theory helped me to challenge pre-constructed notions that insinuated themselves into the formulation of the research problem from the very beginning (Bourdieu 1992:235-247). Practice theory pushed me to “unpack” socially pre-constructed research objects such as race, doctor-patient relationships, hypertension, and stress, and to reconsider them within the context of the history and political economy of the United States. I had to consider the work lives and health of San Francisco transit operators within the framework of relations between the union and management of a big city urban transit agency as well as the relationship between that organization and the politics and economy of the city it serves. These had to be similarly situated within larger social, economic and historic contexts. Finally, even the research question itself was subject to extensive renovation during the research process. Bourdieu wrote:

Oftentimes, it is only at the conclusion of a protracted work of socioanalysis, through a whole sequence of phases of overinvestments and divestments that the ideal match between a researcher and her [research] object can be made (1992:252-253).

In this regard, this entire undertaking from beginning to end is both an embodiment and an outward expression of praxis.

Practice theory is not a unified body of dicta like those that can be found in structuralist theoretical approaches or like analogous models in the sister physical sciences (such as unified field theory) or the brother social sciences (such as Freudian theory or Keynesian economics). As Ortner wrote,

a new key symbol of theoretical orientation is emerging, which may be labeled “practice” (or “action” or “praxis”). This is neither a theory nor a method in itself, but rather, as I said, a symbol, in the name of which a variety of theories and methods are being developed (1984:127).

Authors who have come to be classified under the rubric “practice theory” are not following a lockstep way of thinking about society and culture and doing the work of research. But they do seem to share an interest in thinking about power, relations between oppositions, and a grounding of social analysis in the material, that is, situating subjects in specific historic moments and very concrete social spaces.

Because I emphasize different facets of this approach in each chapter, I save the detailed discussion of the specific points for the chapters in which they are featured. Here it will be most useful to provide a chapter-by chapter preview/overview (this the aforementioned road map) to introduce the main argument of each chapter, its pertinence to the research questions that I laid out earlier and the concepts and authors whose theoretical ideas I will be working with (and occasionally “writing against”) as I offer you my analysis. But before I do that, there are three theorists, Norbert Elias, Pierre Bourdieu, Arlie Hochschild, whose ideas about *habitus* and the social basis of emotions – pervade the entirety of this project. Since these concepts are the foundations of my

argument, I lay out their origins, development and meaning for my project in this next section.

Progenitor of habitus: Marcel Mauss. In “Techniques of the Body,” a ruminative and wide-ranging lecture that Mauss gave to the meetings of the *Société de Psychologie* in 1934, Mauss wrote:

For a good many years, then, I have had this notion of the **social nature of the “*habitus*”** ... Please note that I say in proper Latin, as understood in France, “*habitus*.” The word translates infinitely better than “*habitude*” (habit or custom) the *hexis*, the “acquired ability” and “faculty” of Aristotle ... (“Techniques of the Body” in Wacquant forthcoming, my emphasis)

What Mauss was interested in was “the total man” (“Total Man,” in Wacquant forthcoming, originally published 1923), an understanding of human behavior that incorporated the biological, the psychological and the social.⁵ “Techniques” was basically a research agenda for further studies in this domain. In it Mauss sketched out his idea that physical ways of being in the world -- from body carriage to movement (walking, swimming, jumping, dancing) are socially taught. Mauss carved out a very specific space for the **social** as opposed to the physiologic or the psychological (which highlight the individual) by providing an engaging series of examples that showed how even the most mundane and seemingly “natural” bodily practices vary across cultures. He argued that “the continual adaptation to a physical, mechanical or chemical aim (for example when we

⁵“Now when we sociologists encounter man, human consciousness – in our statistics, in our considerations of social or comparative history, in our studies of collective psychology or morphology – we deal not only with this or that faculty of the soul, or with such and such function of the body, but with total men composed of a body, an individual consciousness, and of this part of consciousness that arises out of collective consciousness ... What we encounter is a man who lives in flesh and spirit at a determinate point in time, in space and in a given society ...” (“Total Man,” in Wacquant forthcoming; ellipsis in the original).

drink) is pursued in a series of assembled acts, and assembled in the individual not simply by himself, but by his whole education, by the whole of society of which he is a part, in the place he occupies in it (“Techniques of the Body” in Wacquant forthcoming, my emphasis).” The revolutionary point that Mauss buried in a mass of details was that bodily techniques have meaning that has direct relevance to “the symbolic life of the mind” and play a role in the development of human consciousness (Mauss 1973 (1935):76).

Consciousness in Mauss’s view, was not an individualized product of the mind, but rather was formed in part by the social basis of human existence, which he (and his uncle and research collaborator, Emile Durkheim) termed “collective consciousness” (Durkheim 1995 [1912]; Durkheim and Mauss 1963 [1903]).

Mauss struggled with the mind/body and emotion/reason dualisms in his writing. He privileged consciousness and in so doing seemed to be privileging “mind,” but then argued throughout his works that bodily practices shaped consciousness. For example, in “Techniques” he wrote that among peoples who “select themselves toward a determinate efficiency” training in bodily techniques is designed for “education of composure (*sang-froid*).” He continued,

this resistance to emotional seizure (*émoi*) is something fundamental in social and mental life. It separates out, it even classifies the so-called primitive societies, according to whether reactions within them are more or less brutal, unreflective, unconscious or, on the contrary, more isolated, precise, governed by a clear consciousness (“Techniques of the Body” in Wacquant forthcoming).

Mauss appears to distinguish between two types of feeling: *sang-froid* and *émoi*.

In the text, *émoi* is translated as “emotional seizure,” but it also translates as “agitation” or “turmoil.”

The English word “emotion” has two French translations: if it means **reaction** (anger, joy, fear) then it is translated as *émotion* or *émoi*, but if it is a **feeling** (love, hate, jealousy) then it is translated as *sentiment*.⁶ We might characterize *émoi* as “raw emotion.” But the distinction in French that appears to be lost in English points to the longstanding and still current debates between positivist and interpretivist ways of understanding human emotion [Lutz and White 1986:406]. What Mauss opened up for us, assuming anything other than an extreme positivist stance on this question is the awareness of how in all human societies there is an education in *sentiment*. For example, writing about grief in another essay, Mauss proclaimed:

Not only weeping but all kinds of oral expressions of emotions are essentially, not exclusively psychological or physiological phenomena, but social phenomena eminently stamped by non-spontaneity and by the most perfect obligation (“The Mandatory Expression of Sentiments,” in Wacquant, forthcoming, original published 1921).

In summary, two crucial and related ideas start with Mauss: both the idea that emotions (*sentiments*) are learned or social and the idea that they are part of one’s **habitus**, a characteristic set of bodily practices and dispositions.

Elias and historicity of emotion. In *A History of Manners* (1994 [1939, 1968])

Norbert Elias, a younger contemporary of Mauss, historicized emotion. What Elias did

⁶All definitions taken from the *Oxford Hachette French English Dictionary*, 2nd edition (1994), Oxford: Oxford University Press.

that set him apart from Mauss was to make clear the link between a given political-economic environment and a way of comporting one's self and feeling.

Elias's abundantly documented book described how manners in Europe changed from the middle ages up to the present. By analyzing a sequence of etiquette books for young people produced over the centuries from the feudal ages to the Victorian era, Elias demonstrated that there was nothing "natural" or "evolutionary" about these developments: "Nothing in table manners is self-evident or the product, as it were, of a 'natural' feeling of delicacy" (1994 [1939, 1968]:88). Elias argued that the training in bodily comportment was also a training in emotion: "Bodily carriage, gestures, dress, facial expression – this 'outward' behavior with which the treatise concerns itself is an expression of the inner, the whole man" (1994 [1939, 1968]:44). Though he does not refer to Mauss's work, *A History of Manners* seems to have taken up the research agenda that "Techniques" called for. Elias focused on the training in outward forms and physical behavior and he "made the familiar strange" (in this case by focusing on a different era in Western Europe). He vigorously challenged the idea of a teleological end defined as "Civilization" (Elias 1994 [1939, 1968]:183). For example, he shows how the manners of the court and the aristocracy spread tier by tier through French society, from *le roi* on out (Elias 1994 [1939, 1968]:88), but only up until the point when an increasingly autonomous and financially independent bourgeoisie began to influence courtly manners as well. And the reason? Bourgeois work life required a higher degree of self discipline:

During the stage of the court aristocracy, the restraint imposed on inclinations and emotions is based primarily on consideration and respect due to others and above all to social superiors. In the subsequent stage, renunciation and restraint of impulses is compelled far less by particular persons; expressed provisionally and approximately, it is now, more

directly than before, the less visible and more impersonal compulsions of social interdependence, the division of labor, the market and competition that impose restraint and control on the impulses and emotions. It is these pressures, and the corresponding manner of explanation and conditioning mentioned above, which make it appear that socially desirable behavior is voluntarily produced by the individual himself, on his own initiative. This applies to the regulation and restraint of drives necessary for “work”; it also applies to the whole pattern according to which drives are modeled in bourgeois industrial societies (1994 [1939, 1968]:124-125)

Elias took Mauss’s assertions about the social basis of emotion and through careful historical analysis brilliantly made a strong case for the validity of this claim. By adding a political economic dimension to his argument, he developed this idea well past the point where Mauss left it. Elias contrasted his ideas with Talcott Parsons’s, the leading sociologist of his time, whose functionalist thinking emphasized social homeostasis (1994 [1939, 1968]:185-189). Elias argued instead that change was intrinsic to “figurations,” his term for the networks of interdependencies, from small groups to entire societies, that he believed constituted human existence (1994 [1939, 1968] :213-214). In championing the inevitability of change and demonstrating how it happened, Elias’s work modeled an approach for analyzing the health-related behavior of the transit operators in this study.

Elias also denied the dichotomy between “individual” and “society” that pervaded (and still influences) much of American anthropology and sociology in the latter half of the twentieth century. He wrote:

People to whom it seems self-evident that their own self (or their ego, or whatever else it may be called) exists, as it were, ‘inside’ them, isolated from all the other people and things ‘outside,’ have difficulty assigning significance to all those facts which indicate that individuals live from the first in interdependence with others (1994 [1939, 1968]:203).

Elias's work is important to my argument both because of its obvious influence on Bourdieu and Hochschild about whom I will be speaking presently, but also because he demonstrated how societies and cultures change over time.

Bourdieu. A direct descendant of the intellectual genealogy that starts with Emile Durkheim and goes through Mauss to Claude Levi-Strauss, Pierre Bourdieu brought Mauss's concept of *habitus* to a wider audience of present-day anthropologists and sociologists. For Bourdieu, *habitus* provides the mechanism through which the social becomes the individual: the ways we learn to be in our bodies and the ways we learn to perceive are organized by the history of what came before us. *Habitus* "consists of a set of historical relations 'deposited' within individual bodies in the form of mental and corporeal schemata of perception, appreciation, and action" (Wacquant 1992:16). Bourdieu speaks of *habitus* as structured and structuring: **structured** because it is rooted in historical relations, **structuring** because the interaction of the *habitus* of multiple actors in real time and space leaves room for improvisation that creates the possibility for influence and change. *Habitus* is a key term for explaining and analyzing social difference. For example, in his analysis of the social roles of Kabyle men and women in Algeria, Bourdieu pointed out how the *habitus* gets 'naturalized,' and its social origins concealed. He argued that it is this process of 'naturalizing' *habitus* that reproduces social order and explains why the dominated so often acquiesce in their domination (Bourdieu 1977; Bourdieu 1990; Bourdieu 1991).

The dynamism inherent in his approach is revealed in Bourdieu's insistence that *habitus* is always be analyzed in relation with two other key concepts, **capital** and **field**. The shorthand for this is the equation (Bourdieu 1984:101):

(*habitus* x capital) + field = practice.

Capital can be economic, social, political or symbolic; it is a modality of power. **Field** is a plane of social space in which *habitus*-embodying actors possessing a specific form and amount of capital vie for more. The formula expresses social movement, though always within the “limits of the possible” (Bourdieu 1984). Thus *habitus* also becomes a mediating term in the agency versus structure opposition. Bourdieu calls the encounter between *habitus* and field “practical sense.” drawing an analogy to an expert sports player’s “feel for the game,” an ability that is not a function simply of learned rules or technical skill, but a more fluid, almost intuitive understanding of how to play and what the next move must be (Bourdieu 1990:66-67).

The concept has been criticized for its highly or even over-determined point of view (Rabinow 1996). There seems no escape from the parabolic arc of behavior that becomes a life history that is similar to other life histories meted out to those with the same particular economic social and temporal background (for example, the cases often used example of the Kabyle to demonstrate cultural reproduction), but it is the inclusion of temporality that provides for the possibility of variation within the model. Agents are acting in a given plane of social space, a field in Bourdieu’s parlance, and are thus subject to the influence of others on intersecting planes, or on the same plane, who may alter the trajectory predicted by a given beginning point.

The concept of *habitus*, especially when thought about in conjunction with Elias’s ideas, seems to be a remarkably supple device for envisioning ways that people adapt to their social environment(s) and especially in complex modern societies where those environments have the possibility of shifting dramatically between work and home, for

example, where one may be operating on different “fields” for different kinds of “capital.”⁷ Though you are “born into” a social field that establishes your original habitus, there is nothing in this model that precludes the possibility of later social experiences and educational exposures (i.e. your accumulation of capital and ability to “play the game”) that requires that this be the only habitus you embody. This idea is central to the argument I will develop in this dissertation: namely, that workers come to possess a habitus as a function of their occupation. Arlie Hochschild demonstrated evidence of this in *The Managed Heart* (Hochschild 1983), her famous study of service work that looked at flight attendants and bill collectors. It is to Hochschild that I turn now as I round out this theoretical overview.

Hochschild. Hochschild is a sociologist of emotion whose work steers a middle path between objectivist and subjectivist ways of understanding the relationship between self and the social world. In her analysis of the distinctly contrasting approaches of Erving Goffman and Sigmund Freud she finds room for a more nuanced concept, that of the “sentient self” (Hochschild 1983:21-232; Hochschild 2003:75-86). According to Hochschild, Goffman (1959; 1963) theorizes a self that is a “conscious, cognitive, calculating actor in the social world,” always focused on “impression management”

⁷For example, Simon Williams proposes the notion of “emotional capital” which he defines as: “accumulations of positive and negative emotional experiences, including feelings of pride and (dis)advantage, power, status and prestige across historical time and space. It also captures the underlying link between habitus, body techniques and more general struggles for social distinction in the crisis-crossing fields which constitute society. This in turn suggests interesting linkages between the social inequalities and life events literature....” (2000:568).

(Hochschild 2003:76). On the contrary, Freud theorizes a view of the self that is one of an “unconscious emotional self... ‘driven’ or ‘prompted by a limited number of “instincts,” “impulses,” or “needs” to achieve, affiliate or do any number of things that surface merely as ends or means (pp. 76-77). Goffman’s self is totally surface and manipulative, Freud’s is totally inner and unaware. Hochschild argues that third image of the self that triangulates between these two is necessary, a self she describes as **sentient**,

a self that is capable of feelings and aware of being so. More than a bloodless calculator or a blind expresser of uncontrolled emotions, the sentient self is aware of feeling as well as of the many cultural guideposts that shape it (Hochschild 2003, my emphasis).

It is in this same zone that Bourdieu’s actor operates and it is in this zone that one finds both the social rules that guide the feelings that motivate action and the social rules that provide the ideological framework for talking about those same feelings as well. She calls the social rules that guide feelings “feeling rules” (Hochschild 1983:97-99) and their ideological underpinnings, “framing rules” (Hochschild 1983:99-100):

Feeling rules differ curiously from other types of rules in that they do not apply to action but to what is often taken as a precursor to action. Therefore they tend to be latent and resistant to formal codification. Feeling rules reflect patterns of social membership (Hochschild 1983:98-99, my emphasis).

This way of embodying the rules for emotional expression is completely congruent with Elias’s and Bourdieu’s ideas: emotions are a reflection of *habitus* and temporally situated.

Operating from her model of the sentient self, Hochschild introduced two additional ideas that are at the center of her argument and crucially important to my own. These are **emotion work** and **emotional labor**. **Emotion work** is the effort that a person makes to bring his or her emotions in line with the culturally expected norm. Here she

uses the example of the bride's emotions on her wedding day – “the happiest day of my life.” It is the bride's understanding of the feeling rules of her group that helps her to engender the appropriate emotional response – not merely a Goffmanesque mask or surface display, but more than “natural” or “instinctive” behavior.⁸

Hochschild defines **emotional labor** as “*labor that requires one to induce or suppress feeling in order to sustain the outward countenance that produces the proper state of mind in others*” (1983:7, my italics). The difference between emotion work and emotional labor is that the former is a private act, but the latter is a requirement of employment. It is an act that those in power (the bosses) encourage, inculcate and if necessary demand from and enforce in their employees, and significantly, that the workers often come to identify with and embody. This is the acquisition of a kind of work habitus. In the following chapter I provide a “thick description” (Geertz 1973) of the everyday work and emotional labor of transit operators. “Cool pose” is my borrowed term for this habitus (Majors and Billson 1992). I am talking about much more than a stance, a

⁸Anselm Strauss, another very influential sociologist of both work and emotions, used a similar term, “sentimental work” in much of his writing. Hochschild and Strauss were contemporaries and both working at nearby campuses of the University of California, Berkeley and San Francisco, respectively, for most of their careers. Therefore it is striking that Strauss is not cited in neither *The Managed Heart* (2003[1983]), *The Commercialization of Intimate Life* (2003), nor Hochschild's seminal journal article on this topic, “Emotion Work, Feeling Rules, and Social Structure.” Similarly, Hochschild is not cited in *The Social Organization of Medical Work* (1997). This suggests to me that they were talking about very different ideas. Sentimental work has a more “psychological” component to it, referencing the processual elements in the relationship between dying people and their caregivers (see, for example, how Strauss's ideas are deployed in Kelly (2004) or Mamo (1999)). Emotion work is about the internal process of aligning one's feeling state to the socially appropriate feeling rule.

posture, a surface way of being. This pose becomes a way of processing the emotional responses to events that are part of the everyday nature of the job.

Following an overview of the remaining chapters, I sketch out my research methods, before proceeding to Chapter Two.

CHAPTER SUMMARIES

Chapter Two - Don't Count the Trips and You'll Be All Right. Chapter Two plunges you deeply into the everyday reality of driving a bus from the point of view of a rookie transit operator on a training ride-along with a veteran. This chapter provides a detailed and rich sample of the work in order to begin answering the question of how transit operators with hypertension live their lives and to begin to sketch out the support and/or obstacles in their work lives that aid or impede their ability to take care of themselves. The description begins to depict the sources of “stress” that the operators routinely pointed out to me over the course of my study. I do not problematize the question of stress in this chapter – I save that work for Chapter Four – but do highlight here a less obvious type of ‘work’ that bus drivers also do. That work has been termed **emotional labor** (Hochschild 1983). I argue that there is a distinct work habitus that transit operators come to embody and I term that habitus “cool pose”(Majors and Billson 1992).

Chapter Three - San Francisco and the Municipal Railway. This chapter places the work of my research participants into its larger structural context, presenting a brief history of San Francisco covering the pertinent details of the origin and growth of the Municipal Railway and situating this local experience in both U.S. urban history and the

Progressive Era (1890-1920). This chapter also presents an overview of the recent history of Muni (past ten years) and the current organizational and management structure, with the objective of providing the reader with a sense of the bureaucratic indifference that suffuses the work environment, and through that lens, a view of the current structural constraints of the transit operators.

Chapter Four - My Job Makes Me Sick: Discourses of Distress. Weaving ethnographic data and theory, this chapter addresses the question of what urban transit operators think about the relationship between their personal health and the conditions of their work. It attempts to unpack what the operators are talking about when they use the term stress and it draws the connection between their emerging themes and discourses in the biomedical and human sciences. Using a Foucauldian definition, it outlines the origins of the “stress discourse.” It shows how transit operators let their bodies speak for them, and relates this observation to their habitus and their forms of emotional labor. Using Dickerson and Kemeny’s innovative concept of “threats to social self” (2004) in combination with the “job strain” literature in occupational health (Karasek and Theorell 1990; Landsbergis, Cahill, and Schnall 1999; Schnall, Landsbergis, and Baker 1994) I explain how the emotional labor required in the work of transit operators impacts their bodies.

Chapter Five - Managing by Making Do. This chapter discusses my research participants’ actual practices of hypertension management ranging from their interactions with various health care providers to the advice and experience they gain on their own or in concert with their peers. It also examines questions of motivation looking at what

motivates people and how location in a social field supports or impede individual tendencies to change habits and behavior.

Chapter Six - Occupational Wellness? In this chapter the focus returns to the larger political-economic structure to which transit operators are bound. It addresses the question of how an occupational health problem got transformed into a personal health problem. I analyze the responses of the organization to the high prevalence rates of hypertension among transit operators, beginning with a brief review of the history of the long-standing epidemiologic research on Muni transit operators, and extending into a critical examination of the efforts of management and the union in the wake of these findings. This chapter demonstrates the limits of agency.

Chapter Seven - Conclusion. This chapter recapitulates my key ideas and focuses on their policy implications. Finally, the interdisciplinary nature of the project is speculatively considered from the standpoint of the possibility for future collaboration across the disciplines of anthropology, epidemiology and public health.

RESEARCH METHODS

The bulk of the ethnographic data for this dissertation was collected between June 2000 and July 2002. The two most concentrated periods of data collection occurred from August 2000 to January 2001 and from July 2001 to February 2002. I engaged in participant-observation in the following settings: the Employee Health Service at the San Francisco General Hospital, all seven Muni transit operations divisions (Potrero, Presidio, Green, Cable, Kirkland, Woods and Flynn) including spending time in gilley rooms (see glossary, Appendix A) and out in the bus yards. I attended six all-day training classes for

the Health and Safety Committee of the union over the summer of 2000. I attended training sessions of the Ambassador Training Program in November and December of 2000, and again in January 2002. Over the course of the whole two years, I occasionally attended union meetings both general and at the division level. I also went to Health and Safety Committee meetings. I went to social events that were sponsored by Muni or the Union (e.g., Christmas parties, retirement parties, picnics, etc.), as well as private social events that transit operators invited me to.

I rode Muni buses, light rail vehicles, cable cars, historic street cars and trolley buses throughout the entire time I attended UCSF (1996-2004). Once I began fieldwork on this project in earnest, I had to decide every time I stepped onto a piece of Muni equipment whether or not I was “in the field.” If I decided I was “in the field,” I took notes on anything of interest that occurred on the vehicle. In addition to these observations, I went on twenty-two formal “ride-alongs” with the transit operators whom I recruited to participate in this study, riding the entirety of their shift (usually more than ten hours) and taking detailed notes during the ride. I observed doctor-patient encounters for some of my research participants, and went with them for quick “blood pressure checks” at Kaiser.

I recruited twenty hypertensive operators to work with most intensively but I came to personally know a much larger group of transit operators – somewhere close to eighty men and women, not including those whom I approached in Employee Health who did not want to be in the study. I used a snowball sampling technique. The sample, though not designed to be representative of the Muni transit operator workforce, does represent a broad cross section of black and white Muni transit operators of both sexes. I also

interviewed union leaders and both first-line supervisors and representatives of senior management at Muni. I interviewed a few health care providers of some of the transit operators who were part of the study. I interviewed transit operators in a variety of contexts, on the vehicle while they were operating, in their homes, during lunch breaks at a variety of venues, and on one memorable occasion, in one man's car, while we lazily drove around Golden Gate Park. Most interviews were taped and transcribed. I interviewed many of my research participants over several sessions, affording a richness to their stories and an opportunity for me to follow-up on points that I wasn't sure about in earlier sessions. In addition, I contacted participants by phone to follow-up on some details and ran into others by accident months after the initial interview series, and was able to continue to record information on aspects of their work lives and their health as appropriate. In the chapters that follow I provide more information on the sources of the data that I draw on as necessary.

CHAPTER TWO

DON'T COUNT THE TRIPS AND YOU'LL BE ALL RIGHT

It is probably safe to assume that each of you reading this dissertation has been on a bus, subway, light rail vehicle, cable car or trolley-bus at least once in your life. Maybe you even ride public transit regularly. You think you know what transit operators have to do to get you safely from point A to point B. And you may be wondering, “what is all the fuss about?”

Think for a moment about the last time you boarded a bus. Did you look at the person who was driving? Could you describe him? Did you speak to her? Can you remember whether the bus was crowded or not? Were there any traffic conditions that seemed out of the ordinary? Did you get to your destination without incident?

It is likely that if the trip that you took was routine, you won't even remember it. On the other hand, if the trip was unusual – either unusually pleasant or difficult – then it is likely to stand out in your mind, having taken on increased significance. It is from these experiences that people more often than not create their “stories” about bus drivers and the general experience of public transit.

People are unaware of what it takes to drive a bus. They do not pay attention to the driver, they are not particularly courteous (nor are they, as a rule, particularly discourteous) and they have no notion of the complex set of technical and social skills that go into making the trip that is so easily forgettable when it is successful, unremarkable. This chapter seeks to plunge you deeply into the experience of driving the bus in order to bring into your consciousness the aspects of the job that are rarely thought about, much

less understood. The purpose of this exercise is to engage you from the operator's point of view and to introduce the **emotional labor** (Hochschild 1983) that operating a piece of public transit equipment also entails.

I offer a collage of experiences taken from my field notes of the many ride-alongs that comprised a significant chunk of my field work. I will use a morning's natural rhythms, presented from the point of view of a novice transit operator, to organize the material with the hope that you will come away from reading this with a more comprehensive understanding of the nature of the work.

Morning Rush Hour – A “Student Operator’s” Perspective

It's 3:55 AM, a foggy early morning in San Francisco. Flynn Division⁹ looms there on Harrison Street. What you see is a four-story high gray structure, with a thin red strip around the outside and high windows, about at the level of the third story. The walls are corrugated metal, the roof a series of zigzags running parallel from Harrison back to Folsom Street. There's an Indian restaurant wedged in at the corner of 16th Street, but Flynn basically takes up the whole city block. It's nondescript; it looks like any warehouse in this no man's land of warehouses and parking garages stuck between the Mission and the South of Market areas of the City. There is only a small sign, not much to tell you from the outside that this is one of seven Muni divisions and that inside there is a thrum of activity as the diesel buses that drive out of this division are readied for morning rush hour. The clues are the numbers of cars parked on the street at this hour, despite the fact that it isn't a residential street, and the steady trickle of bodies, huddled up in parkas

⁹One of seven Muni operating divisions. The others are: Presidio, Potrero, Green, Cable, Kirkland and Woods. See end of Chapter Three for more details.

against the cold and the dark that are converging along the street to all walk in the same direction around the corner onto 15th Street and into the division through the garage, where the mechanics who worked the overnight shift are finishing their workdays.

You're an operator in training and this is your first morning at Flynn, having been assigned here for a ride-along. You've been told to meet Champ, your line trainer¹⁰ – someone who's going to take you through the paces of a run¹¹ --a day's work driving the bus – and show you the combination of driving techniques and social skills that will allow you eventually to get through your own work shift someday, hopefully without any write-ups,¹² PSRs,¹³ or accidents and with a minimum of “stressing out” on your part. But you're already feeling a little nervous – you haven't been to Flynn before, because you received your training in the training department up at Presidio, another Muni division and also the location of several back office administrative units of the agency. and you're not

¹⁰Operators who take the prescribed course and pass the test can sign on to **line trainer runs**, and will be asked to take on “students,” that is, operators-in -training. **Line trainers** receive four dollars an hour above their base pay rate when they have students on their runs with them.

¹¹A **run** is a specific chunk of a transit schedule than an operator can sign-up for during one of the four annual sign-up periods. In selecting a run, an operator knows exactly what his or her work shift will be – **report-in** time, bus route, length of **split**, etc. Such selections are made by seniority during sign-up periods. Operators often refer to high-paying or “low-paying” **runs**, as compensation is a priority variable in run choice.

¹²A **write-up** is any supervisor's written report of a rule infraction which is placed in a transit operator's personnel file.

¹³**PSRs**, or Passenger Service Reports are comments usually complaints, either called in or sent into to Muni. They come in two flavors, “major” or “minor.” Examples of major PSRs are allegations of an operator driving under the influence of alcohol or drugs, “vicious conduct,” an Americans with Disabilities Act complaint, an operator using a radio or cell phone while in revenue service. A complete list is the Memorandum of Understanding (the union contract). A minor PSR is anything not included on the major PSR list.

even sure where to enter the building. So you wait in your car for a while (you don't have to meet your trainer until 4:15 AM), and you sit in the dark and watch the huddled forms hustle down the street and go around the corner until you think you see a pattern and then you take your last sip of the coffee that sustained you during the drive over from your apartment and you take another deep breath and you get out of your car and follow the huddled forms you saw walking up Harrison Street inside.

You walk into the garage, and to your left you see a concrete platform with a short flight of stairs leading up to an orange door that's propped open with a traffic cone and decide that must be where the action is, so you take another deep breath and you walk up the steps and step inside and there you are in the gilley room¹⁴ of Flynn, bathed in fluorescent light, with the smell of more coffee luring you further inside and the familiar postures of the people around the tables inside easing your sensations of uncertainty and lack of belonging.

¹⁴The transit operator's gathering place at each division. **Gilley** derives from the Gaelic, *gille* or *giolla*, meaning "boy" or "fellow," and this term reflects the history of public transit, when stable-boys were an important part of the operation. Muni gilley rooms vary from one Division to another. Usually there is a separate quiet area, for operators to take rests during their **splits**. The main area usually contains lockers, a kitchen area with refrigerator, coffee-makers, snack vending machines, tables and chairs for congregating and often times, a television or two.

Inside, the dispatcher's¹⁵ office is dimly lit, but the fluorescent lights that shine over the majority of the gilley room cast a bright glow. There are about ten operators already here, in various stages of morning prep. One is a senior operator¹⁶ who drives off the extra board.¹⁷ He comes in at 4:00 AM and waits until he is assigned a run¹⁸ based on who's called in sick, or been detained in bridge traffic or is otherwise unable to report to work at the beginning of his shift. His pay begins when he reports in, and he gets paid while he's waiting to hear what run he's going to be on, so that means he's usually going to get paid overtime, every day, since he's going to eventually pick up a run that is likely to go for eight hours, usually longer. He's quietly relaxing right now – reading the newspaper, enjoying a cup of coffee and occasionally bantering with other operators as they come in and begin their work day.

¹⁵Dispatchers are **transit supervisors** who work in the division and who are responsible for time-keeping as well as day-to-day problem solving pertaining to assigning operators to runs. Transit operators must **report in** to the Dispatcher's Office ten minutes before the beginning of their run; operators call in sick to the dispatcher. Dispatchers assign runs to operators who are driving off the **extra board** on the basis of the information they have about who is expected to come to work.

¹⁶An operator with more than twenty years' service at Muni; a very experienced operator.

¹⁷As in the term "driving off the **extra board**." These are fill-in jobs covering the runs of operators who have called in sick, are on vacation, or who have failed to show up for work. The extra board is subdivided in regular and floating. Regular means that you are covering for someone who is out on vacation or extended sick leave and you are working the same **run** everyday. When you drive off the floating extra board, you don't know what your run assignment is going to be until you report in each day.

¹⁸A **run** is a specific chunk of a transit schedule than an operator can sign-up for during one of the four annual sign-up periods. In selecting a run, an operator knows exactly what his or her work shift will be – **report-in** time, bus route, length of **split**, etc. Such selections are made by seniority during sign-up periods. Operators often refer to high-paying or "low-paying" runs, as compensation is a priority variable in run choice.

The Flynn gilley room is big, clean and well lit, with a kitchen area – two vending machines, a long counter with a multi-pot coffee maker and a microwave, and large refrigerator make up the length of one wall. One vending machine dispenses sodas, the other’s selling cookies, candies and assorted salty snacks. The soda machine bears a “5-a-day” poster from the California Department of Health promoting the health benefits of eating at least five servings of fruits and/or vegetables a day. Tables and chairs span out from the counter, mostly clustered together in this central area defined by the “kitchen” space, here where the light is brightest. The dispatcher’s office, which defines another border of this large room, is the nerve center of the morning operations. Drivers must report to work ten minutes before their run begins. They go to the dispatcher’s office to pick up their outfits¹⁹ – a bundle of material that includes a copy of their run schedule (see Figure 1) known as a paddle²⁰ which lists the times they must be at the major stops along their route for the entire length of their shift, several books of transfers, and occasionally a piece of personal mail. Generally speaking, Muni mail²¹ is not something you want to see when you pick up your outfit, because the odds are it’s bad news – somebody – maybe a passenger, maybe a transit supervisor – wrote you up and now you’re going to have to deal with it. The color of the paper you can see through the glassine window of the

¹⁹The **outfit** is the packet of material a transit operator picks up from the dispatcher at the beginning of his or her shift, usually consisting of the **paddle**, several books of transfers, and occasionally a piece of mail, usually **Muni mail**.

²⁰The **paddle** is the sheet that lists a specific bus run’s schedule times to be at major intersections and terminals (see Figure 1).

²¹This is official correspondence from the Muni administration, usually a notification of a **Passenger Service Report (PSR)** or a disciplinary hearing.

Figure 1

Sample Paddle, 38-Geary Route

PAGE 17
IN EFFECT 08/20/01

FLYNN WEEKDAY
INBOUND

REPORT 418A OUT 428A

421

++++++

418A

++++++

++++++

3809

++++++

LN	T	A	RUN NUM	CBRO LAPL	48AV PTLO	MILY HOSP	GEAR 33AV	GEAR 33AV	GEAR PKPR	GEAR PRES	GEAR FILL	OFAR V.N.	OFAR POWL	MRKT .3ST	TBAY TERM	.4ST TOWN	LEAV TERM
38	A	*	401		453\$		457	503	511	515	519	524	526	529			534
38	A		401	626			632	638	647	651	655	701	704	708			712
38	A		401	815			823	831	841	846	851	858	901	905			913
38	A		401			1015	1021	1029	1039	1044	1050	1057	1101	1105			1113
38	P		401			1214	1219	1228	1239	1244	1250	1258	102	106			113
38	P		479														106
38	P		479			213	218	227	238	243	249	257	302	306			313
38	P		479			414	419	429	440	445	451	459	503	508			516

\$ ROUTE VIA FORT MILEY : OB UPON PASS REQUEST; IB WHEN
SIGNAL LIGHT IS ON

envelope gives you a clue as to its contents: gold and white is a minor PSR (passenger service report - glossary), green is a “caution and re-instruct” letter – this means you’ll get a reprimand from your superintendent but nothing will go into your personnel file. A thin white letter is a “hearing letter.” This is the only thing you maybe should open right away, because the hearing might be scheduled for today, and you’ll have to either report downtown to “401” (401 Van Ness Street) or up at Presidio (the Muni front and back offices, respectively). As another operator said during another ride-along, “Imagine getting something like that in your outfit first thing in the morning. Now you’re driving around all day, worried and mad, thinking about what you’re going to do in the hearing.” This morning though, so far so good. It’s a steady flow of people coming in to pick up their paddles and then leaving for the garage to pull out.²²

An assortment of breakfast foods which a hurrying operator can easily grab as he rushes off to find the bus to which he’s been assigned sits on several tables located nearer to the door exiting to the garage. It’s three big cartons of instant Quaker Oats, Nutrigrain breakfast bars, and Sara Lee cinnamon-raisin glazed pastries with another box of apples and oranges with two hands of bananas on top. The food and the coffee service are paid for by the operators and mechanics; they make monthly contributions and somebody, usually one of the women operators, picks up stuff from the nearby Costco.

You’re sitting at a table now, looking for Champ, the operator you were supposed to meet at 4:15 AM. You’ve met him once before, he’s bronze and handsome, someone you might describe as “red” to another black person – he’s got that coloring that Malcolm

²²The act of driving a transit vehicle out of the barn or yard at the beginning of a run

X made famous. He's also tall and muscular with just a little bit of a paunch. He must report in²³ by 4:18 because his pull out time is 4:28 AM and technically, he'll be considered a miss out²⁴ and lose a day's pay if he comes in more than one minute after the report-in time, in which case, one of the extra board operators will pick up his run. You on the other hand will only lose a day's experience unless you can hook up with another operator who also has been designated a line trainer and who can therefore officially show you the ropes. But he flusters in at 4:19, just under the wire, and greets you. Your learning curve is about to take a steep turn vertically upward.

Before you started your training to become a transit operator you never thought about the ends and beginnings of routes – the terminal points. It never occurred to you that the schedule had to be planned to get a bus out to a starting point. Maybe it crossed your mind idly, but you didn't really *think* about it. Well, this morning you're going to realize it, because the bus division is on the back side of downtown, at 15th and Harrison, and the terminals for the route you're riding along today are at the Transbay Bus Terminal (about 20 blocks east of where you are now, near the Financial District) and way out at the ocean on Point Lobos at 48th Avenue, across the street from the Seal Rock Inn. You're on the 38L – the 38-Geary Limited, a bus route that takes you about six and a half across the city on a straight east-west route, “bay to breakers,” you might say, across the

²³The designated time for operators to show up for work and **report in** to the dispatcher's office is ten minutes before the beginning of their runs.

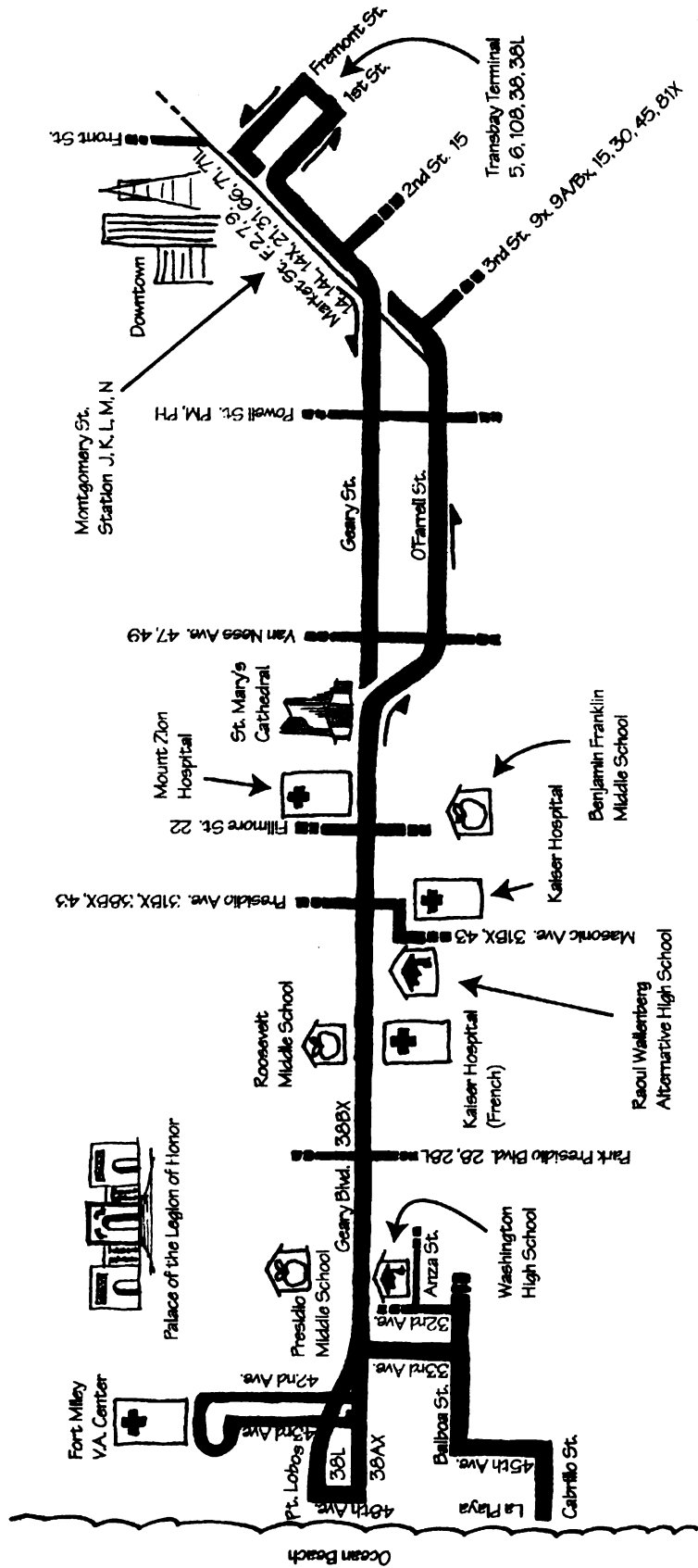
²⁴If an operator does not **report in** for work ten minutes before the beginning of his run (there is a one minute grace period), technically that behavior can be termed a **miss-out** and his or her run can be given to a floating **extra board** operator. In practice, lateness is tracked (an occasionally disciplinary action taken), but usually it is not called a miss-out unless the operator fails to show up for work at all.

thumb of a peninsula that is the city of San Francisco (see Figure 2.- 38L Route Map).

And your run starts on the western side, out in Outer Richmond, where the residential commuters are, the early morning folks who are riding downtown to work in the skyscrapers of the Financial District and the cafes and minimarts and xerox shops and drug stores and restaurants and newsstands and hotels and sweatshops that service it. But the bus has to get out there first and your line trainer will haul ass to get it out there first thing this shift.

Champ tells you to wait while he picks up his outfit and checks in with the dispatcher; you tell him you're going to go to the bathroom and that you'll meet him at the doorway to the garage. You flag another transit operator, the woman with whom you were chatting while you were waiting for Champ to show up, and she takes you through the phalanx of lockers in the far reaches of the gilley room and unlocks the women's bathroom for you. She asks which line you're going to be on and you tell her the 38. She makes a face and says, "It's a good thing you're going to the bathroom now! That bathroom at Point Lobos is nasty! The Transbay Terminal isn't so bad, but Point Lobos," she curls her lip and pulls up the muscles around the sides of her nose up as if she were 'smellin' bad cabbage.' You remember that you have a packet of kleenex in your backpack which can do double duty if necessary, remind yourself that you're not the squeamish type as you also remember your packets of alcohol wipes tucked safely in your cosmetic bag, finish your hand-drying there in the Ladies and head on out to meet Champ at the garage doorway.

Figure 2
38-Geary Route Map



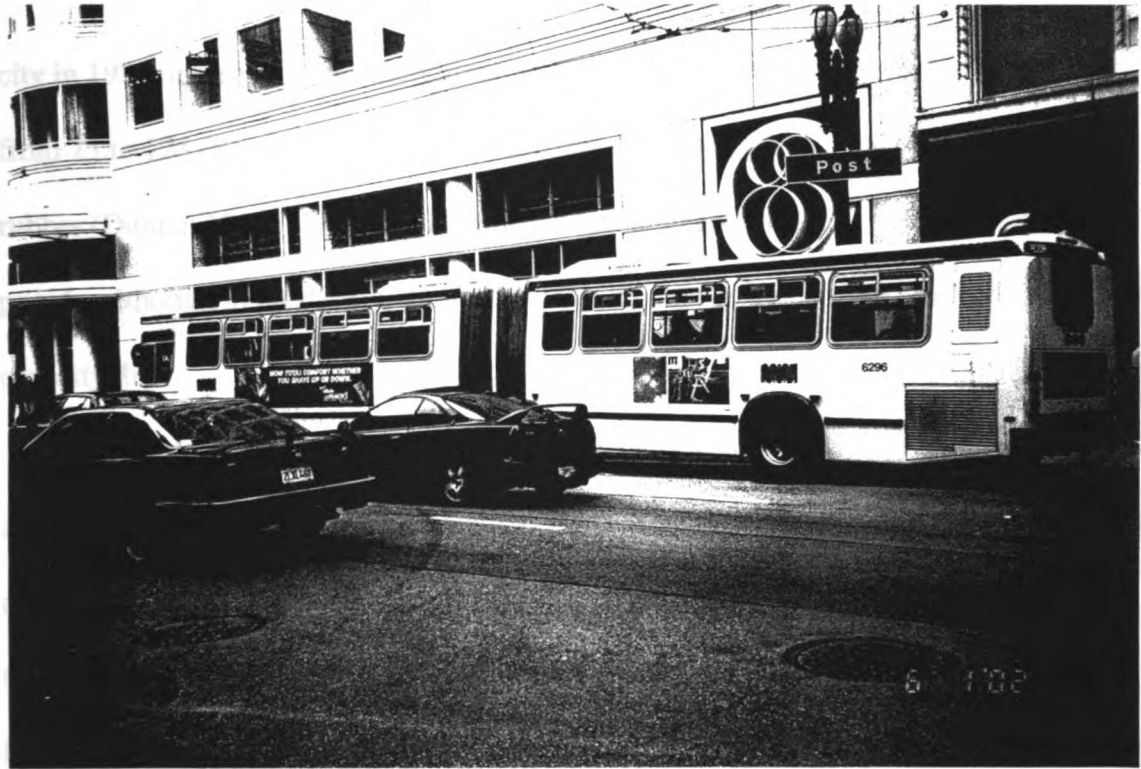


Figure 3
Photograph of an articulated Neoplan bus

The 38 is a heavily traveled line, not just during morning and evening rush hours, but all day long. For most of its route (there are 3 variants once you get past 33rd Avenue) it runs every seven minutes, according to the schedule, and even with this kind of headway²⁵ the bus is often crowded. Sixty-foot articulated buses were introduced to the city in 1984, increasing the maximum number of people an operator could carry per trip from 75 to 125 (See Appendix B).. An accordion-pleated midriff made of vulcanized rubber (Dunlap 1999) allows the lengthened bus to negotiate sharp turns and carry more people, although interestingly, the seated capacity did not increase as much as the standing capacity did.

Together, you find the yard starter²⁶ who tells you which bus you've been assigned. He tells us our bus number and gives us an approximate location for it inside the cavernous garage. It's back along a long row of six or seven buses. The garage's air smells faintly of exhaust fumes. Champ tells you that it used to be thick with fumes when he first started, but it's gotten better mainly due to the persistent complaints and action of some union members. The mechanics have been working all night to ready the buses for the morning rush hour and the 38 is one of the 'owl lines' that run all night, so this place has never really shut down. We find our bus, it's an articulated Neoplan, one of the recently acquired models with many fancy automated features that theoretically make it easier to operate. Champ groans, "I hope we don't get no wheelchairs today" (which is

²⁵Headway is the scheduled interval of time between transit vehicles on a given route. Length of headway varies with time of day, shorter during run hours, longer in midday and evenings.

²⁶A yard-starter is a Muni employee who assigns transit vehicles to operators after they report in to work

unlikely since every other trip west²⁷ you'll be driving the Fort Miley service, taking people to the V.A. Hospital). You nod in acknowledgment of his statement without thinking to ask why this would be a problem.

You and he board the bus and he begins the pre-op bus check, a required routine, necessary to assure that all safety features on the bus are in working order before pulling out. The bus was supposed to have been cleaned over night and it looks like it was. Champ punches in the computer codes to operate the electronic signage that will indicate to folks what bus route this is and also which run number. It's missing a trash can, so he scavenges one from the bus in front of him, and secures it to the fare box with a piece of wire.

He adjusts the seat. Because this is a newer bus the adjustment mechanisms are still working pretty well. Next, he makes sure the mirrors are in the proper position for him. The big mirror near the passenger door has to be adjusted by hand – so he's back and forth between his seat and the door checking to make sure his view is optimized. It's 4:28 now, pull-out time, but there are still some last minute pre-op activities to complete. Where's the neon orange traffic cone every bus is supposed to be equipped with? Oh, here it is, behind the driver's seat. Where's the wooden wheel block? He can't find it, so he's back out to get one off another bus, leaving the next driver of that bus to his own scavenging devices. He pulls out his driving gloves, then tucks his backpack behind the seat, affixes his paddle to the dashboard just above his steering wheel, settles in and gives

²⁷A **trip** is defined as one complete roundtrip of a given bus route. Going from one terminal to the other is defined as a half-trip. In practice, the terms trip and half-trip are sometimes used to describe the same distance.

the driver's side mirror one last tweak. Then he pulls out a little calendar and writes down his run number and his bus number. You ask him why he did that, and he tells you that it was a way to make sure that when his paycheck came, he was getting paid for the work that he actually did. He said it also helped you to make sure that if you got a write-up or a disciplinary notice of any kind that you could check back against your own records and see whether or not you were actually on the bus or run at the time that the alleged infraction occurred. He describes this as 'part of the game.' Finally at 4:35, he's ready to go, pulling out seven minutes after the scheduled 4:28 pullout time, but giving himself almost twenty minutes to get up to 48th Avenue, a reasonable amount of time at this hour of the day, considering that the bus is deadheading²⁸ – no passengers to pick up on the way.

It gets foggier as the bus moves west – Champ sets the windshield wipers on intermittent and they flick across the droplet-laden glass every few seconds as the fog densens to a kind of standing rain cloud. By the time the bus arrives at 48th Avenue three passengers are already there – umbrellas unfurled overhead, collars turned up against the damp. Champ pulls up at 4:52, greets his regulars with a friendly, but quiet hello (it's too early in the morning for heartiness) and the first trip of the run begins.

At every stop out here on the Avenues, two or three passengers board. They're all commuters, flashing their fast passes at Champ, so the boardings are quick: the tick-tick-tick of the turn signal as the bus pulls into the zone, the kneeler feature of the bus letting out a gasp as it descends, making it easier for short legged or handicapped or arthritic or

²⁸To **deadhead** is to drive an empty transit vehicle, usually to a terminal point, or back to the division, at either the beginning or the end of a run.

simply elderly people to board, the brief exchange of pleasantries as each passenger flashes her bus pass, and the slow rise as the bus returns to driving position, with the tick tick tick of the turn signal again as Champ pulls out into the early morning traffic on Geary Street. The bus's interior lights are low – some thoughtful engineer must have realized there might be times when bright lights would be less welcome and Champ makes observations about the route and the driving and weather conditions he's facing as he drives along the way. He reflects on the seemingly simple act of pulling into a bus zone:

“Yeah, I knew a guy, he just started on the property, hadn't been an operator more than two or three months and he had never operated in the early morning or in the rain – just one of those things, so he didn't have much experience with how slick that white paint that the bus zone is painted with gets. So this one morning, a morning kind of like this one, he's operating and he puts on the brakes right as his wheel hits the paint and the bus slips, because the paint is slipperier and slicker than the asphalt and he crashes right into the bus shelter – a chargeable²⁹ accident! His line trainer hadn't warned him about the paint!”

You take heed and you remember your own experience driving through a crosswalk in your own car – marked with that same paint – and the subtle loss of traction in your car wheels as you tried to accelerate. Duly noted, you think, as you imagine

²⁹Bus accidents are categorized as **avoidable** or **unavoidable** by the division safety instructor when they occur. They are also classed according to severity. Group (a) accidents are serious or major accidents involving a violation of traffic laws or Muni safety rules and Group (b) accidents are “all other accidents. An avoidable, Group A accident is one that an operator is “charged” with by the Division Superintendent, hence the additional term, **chargeable**. Operators having accidents so designated are subject to serious disciplinary consequences, including appearing at an Administrative Review Board (ARB) hearing..

yourself trying to remember this along with one thousand other details, the first time you're operating a bus all by yourself.

The route you're on is the very first route of the San Francisco Municipal Railway, the first publically owned transit company in the United States, which began operation in 1912. (Chapter Three provides this history.) Before Muni, the region on the northwest side of the city from downtown to west of Van Ness Street and between the Presidio and Golden Gate Park had a myriad of cable car lines servicing it, and, as a result was more densely developed and had more housing than other areas of the City. The entire area was called the Western Addition, a moniker that gradually came to describe a more bounded geographic region with a racially mixed neighborhood that served as the nucleus of one of several areas in the City that later became predominantly black communities (Broussard 1993:29-31; Hartman and Carnochan 2002:25). What was to become the 38 diesel bus line began as the "A" – an electrified street car line that ran from Kearny and Market Streets to Golden Gate Park via Geary Boulevard (turning left on 10th Avenue to enter the Park near the DeYoung Museum and the Japanese Tea Garden, and "B," a shuttle service that extended the line from 10th Avenue out to 33rd Avenue (Perles 1981:27-29). The route was chosen in recognition of the ready access of "suburban" passengers seeking to travel downtown. Successions of immigrants to San Francisco have created stable middle class neighborhoods all along the route of what is now known as the 38-Geary line. The line also borders one of the tonier regions of the City, too – Pacific Heights. The number of commuters to downtown from this area is underlined by the addition of commuter express lines also bearing the "38" name. The express lines run only on weekdays during peak rush hour periods: inbound mornings from roughly 6:45 to 8:30 AM; outbound

afternoons from about 4:00 to 6:45 PM). The 38AX runs from the same terminal point that we started from – 48th and Point Lobos – and travels the same route as the regular line until 25th Avenue where it becomes an express service to the Financial District. The 38BX begins at 25th Avenue and picks up passengers along Geary all the way to Presidio Avenue where it also heads down Bush Street to the Financial District.

So the first trip of the run picks up people who have to be at work earlier than they would be able to get there riding on one of the express lines. The “limited” (i.e., the “L” designation on the 38) is a good deal slower than the express lines, though it is somewhat faster than a local – past the Avenues³⁰ it stops only at main intersections, roughly every three to four blocks. Just before Gough, Geary becomes one way (headed west) so we ease through the Tenderloin on O’Farrell (one way headed east) as we head toward Market Street and the Transbay Terminal. Champ’s bus makes it there at 5:29 AM, right on schedule. There’s five minutes of “recovery time” built into the schedule – that’s *schedule* recovery time³¹ and then you and Champ start the trip back outbound at 5:34. Though there aren’t as many riders going outbound at this hour, the bus is far from empty. The route along Geary from the Transbay Terminal out to Park Presidio is a dense, multi-use zone of the City – a mixture of commercial and residential activities and even this early in the morning there are people riding from downtown who need to be in midtown or beyond. This first roundtrip of the day was uneventful, mainly you and Champ trying to

³⁰Nickname for the western suburban regions of the City because the major streets are numbered avenues.

³¹This is time allotted by the scheduling department for catch up at the end of a half-trip.

adjust to the cold seeping in, sipping on coffee, and talking quietly. The bus's seats are about 70% full, no one standing at this point, just early morning commuters trying to get to their jobs. At this time of the day, it's about an hour roundtrip.

At 6:25, just before the scheduled departure time of the second roundtrip, it's lighter out, but still a grey and foggy morning, especially out by the ocean. It's the beginning of peak hours and there's a bit more of a buzz on the bus. Champ checks his paddle to make sure he's making the major intersection time points in accord with the schedule. Running sharp³² is a problem if the bus leaves the intersection more than one minute ahead of schedule. Too slow is arriving at a designated point more than four minutes behind schedule. At this hour of the day the transit supervisors aren't out yet, but Champ prides himself on being timely, as he maneuvers his bus down Geary Street so frequent glances at the sheet on his dashboard are a part of his routine.

You've only gone a short distance inbound, maybe ten blocks at most. At 36th Avenue the bus idles at the stop, Champ's just about ready to pull out, when a well-dressed lady in business pumps runs across the crosswalk in the forward path of the bus with the apparent intent of trying to catch it before it pulled away. Champ's head was turned toward you, idly chatting, and you jump when you see the lady and say, "Watch out!" There was no real danger of hitting her but you are unnerved. Champ points out that that kind of thing happens several times a day. Not much further down the street, it happens again. This time a young woman with green hair dashes in front of the bus --

³²Running ahead of the scheduled time. Transit operators can be written up by transit inspectors for being more than one minute ahead of schedule or more than four minutes behind. Three write-ups in a quarter results in suspension from work for a day, thereby losing a day's pay.

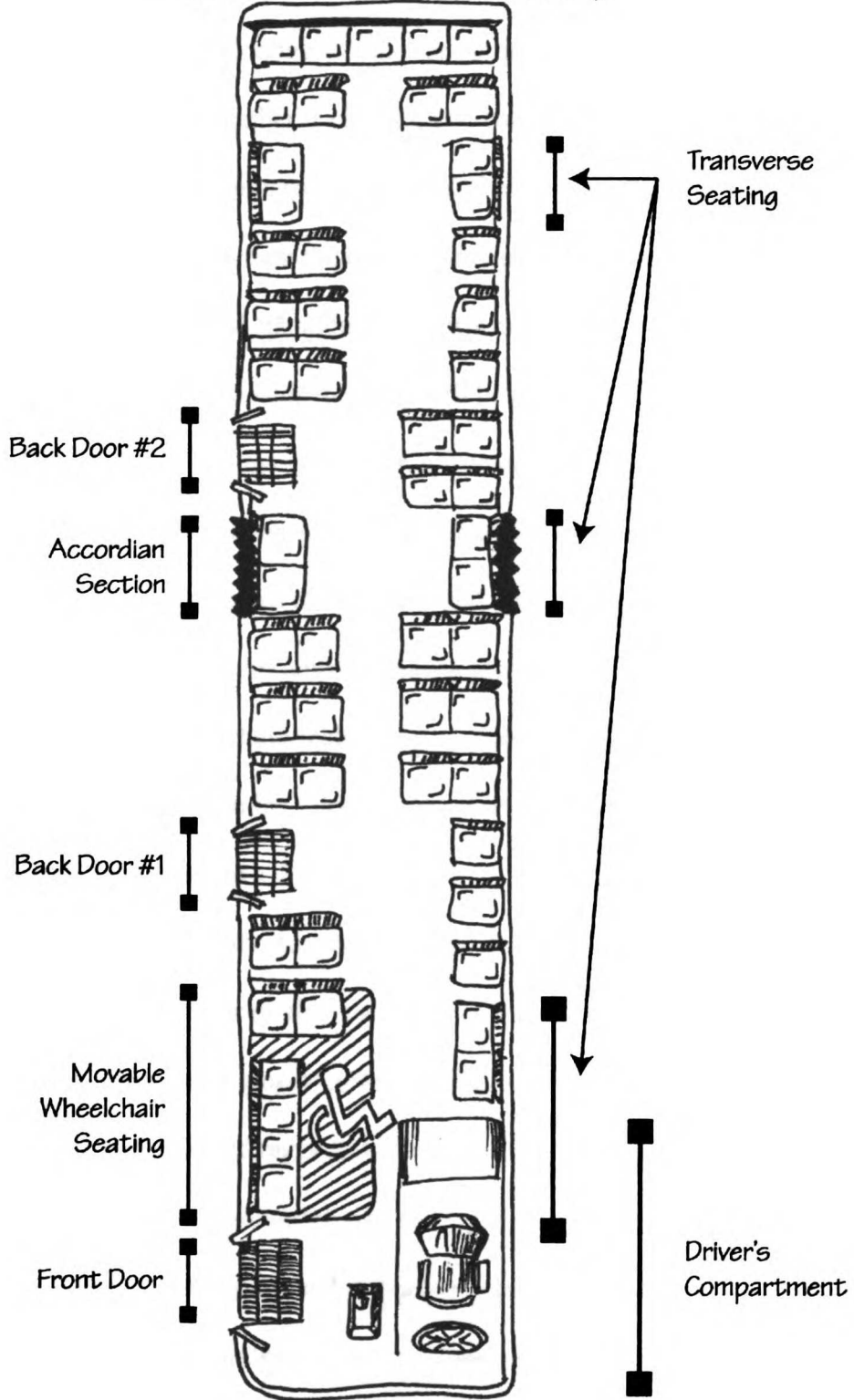
Champ points it out to you. Traveling downtown this time takes a lot longer and the bus is a lot more crowded. By Presidio Avenue (about halfway) people are standing in the aisles. It's not packed, but it's crowded. It's a "swinging load."³³ You stand up and move to the back because you feel guilty sitting on what you call the facing benches, and which are technically known as the transverse³⁴ seats – the elderly/handicapped seats that open out to the bus aisle at the front of the bus. You get to the terminal with no time to spare, and immediately Champ pulls up to the stop and heads back outbound.

This is the "monster" morning trip. Champ turns to you and says, "This is when you make your money." The bus is crowded by the time we get to Union Square – less than six minutes away from the Transbay Terminal according to the schedule. Everyone's boarding – white-, pink- and blue-collar workers, grizzled old men on their way out to the V.A. hospital, little old ladies and men headed for Kaiser or Mt. Zion Hospitals, and at this time of day, the school kids. This route services Benjamin Franklin Middle School, Raul Wallenberg Alternative High School, Roosevelt Middle School, the Presidio Middle School, and Washington High School, in order of their appearance from east to west. School kids – asian, latino and black – board all along the route, most fairly quiet, sleepy perhaps (it's early for them). But the boisterous ones make up for the others: they loudly proclaim the stories of their lives for all on the bus to hear.

³³A bus full of standing passengers

³⁴On a transit vehicle, these are seats that face out onto the aisle rather than forward

Figure 4
Seating Layout - Articulated Neoplan
(driver's compartment not to scale)



You again relinquish your spot near the door to make room for the elders who need to sit in the front transverse seats, and move to the back of the bus. You can hear four high school girls loudly debating whether or not it's a good idea to fight a boy who has/owns a gun, wondering whether if you did, you would run the risk of having it pulled in your face and shot. Their language is crude – full of 'bitches,' 'ho's,' 'niggas,' and 'mothafuckas.' When the crowd on the bus dies down around Park Presidio you return to the transverse seats up front and mentioned the girls in passing. "All kids are noisy," Champ replies with a shrug and adds that they will be getting off at 33rd Avenue to go to Washington High School. A few stops later, a woman with a heavy Eastern European accent (there is a large Russian immigrant community along the 38 route) approaches and says she has a headache from all of their talking and their loudness. "Can't you do something?" she whines. Champ repeats what he said to you – that they would be getting off soon, and then comments (rhetorically) to you when she returns to her seat, "What am I going to do?" He then gets on his microphone and asked the girls to "settle down, back there." It doesn't seem to make a difference.

Throughout the rest of the morning the people on the bus ebb and flow. The high energy and tension of rush hour mellows a little. As you begin your last trip outbound from the Transbay Terminal, a ginger-haired, freckle-faced emaciated white man and a mousy blonde with bad skin and raggedy-looking clothes board the bus with a large plastic ice chest on wheels, two huge suitcases with hand-painted white plaid markings, two overstuffed duffle bags, a backpack and a bulging blue plastic shopping bag, making several trips between the sidewalk and the bus to get everything on. You had been watching them as you sat in the bus waiting for Champ to return from the bathroom, and

jokingly remarked as you saw the woman dragging the chest across the bus lane that you thought they were going to get on his bus. But then they did. You said you were amazed that he let them on with all that stuff, because other times, when you had ridden the bus as a passenger, you had noticed that some drivers chastised people who tried to board with wheeled grocery carts. Champ simply says to them, “You can’t take up all the seats. Just make sure you’re not blocking the aisle.” It’s becoming clear that he’s an easy going guy with a live and let live attitude – if he can possibly avoid having a confrontation, or if the situation doesn’t seem too bad, he will try to accommodate.

But it isn’t always easy and sometimes the communication doesn’t go so smoothly. At Sansome Street, shortly into this same trip, there is a man in a wheelchair. A passenger tries to board in front of him, and Champ chides him: “Hold on a minute, sir. Can’t you see there’s a man in a wheelchair?” The man, a thirty-something asian in chinos and a polo shirt, steps back, and Champ gets up to prepare the left transverse bench (opposite from the ginger man and the mousy blonde) for the wheelchair. This is a multi-step operation – the people sitting on the bench have to gather their belongings, get up and move to another location, the bench must be folded up and locked into place, the belts to secure the wheelchair have to be untangled and pulled out to their full length. The other people waiting at the stop are looking toward the back door wondering if it will be opened so they can board. Sometimes you have seen operators do this if it’s busy and/or if the bus is super crowded. The assumption is that most people have pre-paid monthly fast passes and so collecting fares won’t be necessary and people can board more quickly.

Anticipating this, another asian man sitting on the seats facing the first back door asks Champ if he wants him to step down on the door’s steps in order to engage the door-

opening mechanism. Champ gives him a glare, and says, "Do you want to drive this bus?" He has misunderstood the man and his attempt to be helpful. There is some snippy but low key back and forth, and the man eventually says, "You're the one getting paid, do your job." Champ walks to the front of the bus and lowers the platform and the wheelchair-bound man boards. He is legless and looks a little rough around the edges but not quite homeless. After Champ secures his wheelchair, he walks back to the driver's compartment and opens the door so that the eight other waiting passengers can board. No one puts a dime in the fare box, they all have transfers or bus passes.³⁵

Later Champ tells you he got a little irritated with the "attitude" he got from the man who tried to board in front of the wheelchair. Plus, he said he was always worried about wheelchair boardings on the newer busses. because of the danger, as a result of An engineering flaw in them had made it easy to accidentally disable the mechanism that closes and opens the door on the bus when you engaged the kneeler and the wheelchair lift. This problem had caused him major hassles before because it put the bus out of service.

The ginger-haired man comes up the driver's compartment as the bus begins up to Geary and asks if he knows of any storage places "around here." Champ tells him no.

³⁵During the period I did my fieldwork, one-way bus fare was \$1.00. This can be compared to A.C. Transit (the major bus line in the East Bay) where base fare was \$1.35. Youths ages 5-17, Seniors aged 65 or older and disabled persons paid a "discount" fare of \$.35 per ride, children under five rode for free. Transfers, available free upon request, were good for unlimited use for ninety minutes. Again, the comparable A.C. Transit transfer cost \$.25 and was good for only two additional rides within the same time period. Monthly bus passes cost \$35.00, discount passes were \$8.00. Cable car rides were \$2.00, no transfers were accepted or given out, though monthly fast passes could be used to ride the cable cars.

The bus quickly crowds up and you move to the back, so you don't see this couple get off, but when you ask later, Champ says they got off at Van Ness and there didn't seem to be any trouble about it. At Masonic, you notice the sign for a large Lyon [double check] storage company on the right side of the street, perhaps not so easily visible to someone focusing on the road, and not the passing scenery.

The last trip inbound before the end of the first half of the shift is scheduled to start at 12:14 PM, leaving from Fort Miley, the V. A. Hospital. Champ pulls off three minutes later than that. As we travel downtown, Champ shows you where the street supervisors monitor the line. He doesn't have much nice to say about them: "Inspectors are like the Gestapo. They don't like driving the bus and so they 'take the test'³⁶ and get promoted. It's not like they were promoted because they did a good job driving the bus. They just passed the test." He tells you that an inspector he knew who had previously been an operator in his division told him that in her training she was told to "forget thinking like a bus driver," while she was learning her job because such thinking would be a hindrance in her new position.³⁷

³⁶Take a Civil Service Exam to qualify for promotion to supervisory status.

³⁷Transit supervisors or street inspectors are first-line management at muni. They stand (or sit in their Muni-issued cars) at key intersections to monitor the flow of buses, checking headway and being alert to potential traffic problems that could wreak havoc with the schedule. Their primary job is to keep the bus line running smoothly, sometimes by re-routing buses along the way. In the late 1980s, in an effort to foster more cooperation between the supervisors and the operators, Curtis Green, the first black General Manager of Muni, who had himself worked his way up through the ranks of the organization, gave this job a new title – Transit Line Coordinator – deliberately playing on the acronym, TLC, for "tender loving care." The job title was changed again in the early nineties, under the Sklar administration.

The bus is unexpectedly crowded for midday and Champ tells you that his leader is missing. You've heard the terms leader and follower³⁸ in the classroom training and you get the general idea but here it is in real time. There are about twenty people waiting to board at Masonic, where the 38 line intersects with the 43, a very busy north-south crosstown route. Normally there would be about eight to ten people waiting. Champ says that's the first clue – larger numbers of folks than expected. Could be that the leader bus broke down somewhere long the route or had a safety issue that required the operator to pull in³⁹. Maybe the operator's just running sharp, deliberately speeding up to avoid making the connections at the busy intersections and leaving his follower to pick up what would rightfully be "his" passengers. It's hard to say what the cause is, but the net effect is once again, an overcrowded bus, with Champ on the microphone wearily beseeching the passengers at every stop to "Move back, please move to the rear of the bus," and the passengers obstinately clinging to their square inches of standing room near exits, faces vacant and seemingly uncomprehending of this simple request.

O'Farrell at midday is an obstacle course of delivery trucks and taxicabs to be safely negotiated but eventually you're back at the Transbay Terminal. Champ pulls the bus into its slot, collects his gear, checking around his seat to make sure he hasn't left anything behind. You've picked up your backpack and stepped off the bus, nodding to a jovial latino operator, Adan, who's already involved in a snappy exchange with Champ.

³⁸A **leader** is the bus ahead of you along a given route; a **follower** is the one behind you.. Maintaining proper headway between leaders and followers is crucial to the smooth operation of a transit line. Though it appears to be a simple task, it is deceptively difficult. One of the main jobs of a street supervisor is to monitor this flow

³⁹The act of driving a transit vehicle into the barn or yard at the end of a run

“Hey man! I thought you were supposed to be here at 1:06! It’s 1:15 – I’m already supposed to have pulled out two minutes ago! What you been doin’, showing the rookie a few extra special ropes?” You blush, but remember you’d better get used to it. Though there are a lot more women driving transit equipment for Muni these days, it’s still very much a man’s world.⁴⁰ Champ is right back at him, before you even get a chance to open your mouth. “Aw man, chill! There were a lot of trucks blocking my stops up the way! I ran through a stale yellow⁴¹ tryin’ to get this here to you as soon as I could!” They are both chuckling. Champ almost skips down the bus’s steps, backpack in hand. “The bus is runnin’ pretty good. No real problems out there.” Adan’s boarded the bus now and is adjusting the seat and looking out the door at us on the asphalt below him. “Okay then, see you later.” “Yeah, later man.” The exchange has been brief, maybe ninety seconds, if that. Adan closes the bus’s door and pulls away as you and Champ walk toward the Montgomery BART station to catch a train to 16th Street and head for his favorite taqueria on 16th near Mission to pick up lunch – a burrito for you, grilled chicken and salad for Champ, to be eaten with comrades back in the gilley room at Flynn during the two hour and eleven minute split⁴² you have during the first and second halves of Champ’s shift.

⁴⁰See Chapter 5, Table 4, 7/1/01 Workforce Composition, San Francisco Muni Transit Operators) Workforce 2001.

⁴¹A **stale yellow** is a yellow light that is about to turn red.

⁴² A split shift is a work shift with hours divided into two or more working periods separated by time between that is greater than normal time off for a break or lunch. The time in the middle is referred to as the **split**. The regular work day at Muni is “eight in ten,” that is eight hours of work spread over a maximum of ten hours – i.e., a *maximum* two-hour split in the middle of the shift. If the split is longer than two hours, operators are paid time and a half overtime for the extra time.

You are tired, and you didn't even do the work. As you walk down 16th Street toward Harrison on your way back to the bus barn you exclaim, "That was a lot of trips this morning." Champ says, "You know one thing? I learned this a long time ago when I first started operating. Don't count the trips. Just pay attention to what you're doing right now, don't start anticipating, that'll make you crazy. I'm tellin' you, don't count the trips and you'll be all right."

-oOo-

Discussion

This extended description of a morning shift on the 38 line depicts most of the elements that comprise a typical driving day including the extraordinary time pressure that operators face, the resulting brevity and rarity of breaks due to a schedule that is twenty-five years out of date⁴³, and the passenger interactions – an ever-changing mix of light and heavy, kindness and authority, implacability and rage. The only thing missing from this was an example of the violence and/or verbal abuse which is also part and parcel of the common experience of driving public transit.

Because violent incidents completely upset the normal routine on a run, I made a deliberate choice not to include one in this depiction of a typical morning. Violence is a common problem for bus drivers the world over, ranging from horrifying bus massacres in Honduras (De Leon 2004) to nasty spitting incidents in Scotland, bad enough that transit operators are supplied with spit kits to get DNA samples for subsequent prosecution of perpetrators (Innes 2004). Reports of violence, including shooting incidents (usually on

⁴³See Chapter Six for an extended discussion of the schedule and its problems.

the lines serving the poorer neighborhoods of the city) appear occasionally in *The Chronicle* or *The Examiner*, e.g. (Hall 2003; Hendricks 2003). In 1995 it was estimated that “at least 90% of the violent incidents are perpetrated by the public against operators;” 34% OF THE workers’ compensation costs that year were due to assault claims [CITE]. I witnessed a spitting incidents while I was doing my fieldwork – a Berkeley student using his student pass on an AC Transit bus spat at a black woman transit operator and then ran off the bus; the incident was recorded on the cameras that are now standard safety equipment on the newer buses. On Muni, I witnessed threats and intimidation, but no actual assaults. I remember meeting my research participant, Sylvester, one glorious July Sunday at the Transbay Terminal and asking him how he was doing. He told me, “It’s a good week, ‘cause I haven’t been cussed out yet.”

My observations during my twenty-two official all day ride-alongs with my research participants as well as countless other observations of transit operators at work before, during and after my time in the field lead me to conclude that the way the majority of San Francisco Municipal Railway transit operators adapt to their work is by adopting a “cool pose” (Brown 1999; Majors and Billson 1992). This term comes out of African American cultural traditions and is used to describe a distanced way of being in the world: an active interest in not expressing or seeming to show emotion in response to events that confront one over the course of the day. Being cool requires “seeing but not seeing” (Anderson 1990) what is in your environment, ready to move quickly, improvising to the situation as it unfolds, but otherwise, apparently detached from the intensity of the moment (Anderson 1978; Anderson 1990; Brown 1999; Drake and Cayton 1993 [1945]; Duneier 1992; Liebow 1967; Majors and Billson 1992). Another behavioral element of

the cool pose is toughness – the indication, more via body language than words, that the person adopting this stance will challenge any mistreatment or misbehavior towards him or those he is protecting (Majors and Billson 1992).

These two characteristics – detachment and toughness – accurately describe most of the men and women of all ethnicities who drive the buses for Muni. I am not suggesting that this be understood as an overlay of black culture on the organizational culture of transit operators. Though the workforce was still majority black at the time I did my research (see Chapter 5, Table 4, 7/1/01 Workforce Composition, San Francisco Muni Transit Operators), it has become much more diverse than it was in the late 1970s and 1980s when it had become predominantly black.⁴⁴

What I find useful about applying the term “cool pose” to Muni transit operators are the structural parallels between their position in the occupational status hierarchy and the positions of black people in American society – in both cases, at the lower end. In a world where blue collar work is increasingly looked down upon, even by the lower classes (for example see (Anderson 1990:242-243), Muni transit operators mainly seek “respect”

⁴⁴One white operator told me that when he first began to work for Muni in the mid-1970s, at the time when the workforce had transitioned to a predominantly black workforce, he would occasionally pick up a white rider who would tell him how happy she was to see him, another member of the race, driving the bus. In my observations of veteran white male transit operators, I was interested to note the elements of popular black culture and blackness they adopted be it language, hairstyle (Austin, one of the study participants went to great lengths describing how “back in the day,” he wore his curly hair long, in an afro and was occasionally mistaken for black), taste in music or choices in friends. For example, in Brian and Donna’s living room there is a wall of memories – the shelves flanking both sides of the fireplace are filled with pictures of friends and family from every phase of their lives. What is telling is how the left side, which is mostly family of origin, childhood, and teen year shots is mainly white, but on the right side, more and more faces in the frames are black and/or brown.

(Bourgeois 1995). For example, in their bitter contract dispute with management in the late summer/early fall of 2000, operators repeatedly accused management of “disrespecting” them. This was laughed off in many of the news reports and editorial cartoons of the time (Curiel 2000; Editorial 2000; Garcia 2000). Nonetheless it was an important theme for the bus drivers themselves, and their concerns were occasionally discussed from a more balanced point of view in other news outlets (Bulwa 2000; Sarkar 2000; Winokur 2000). In a job where one’s opportunities for autonomy and self-efficacy are limited, the structural similarity to an oppressed racial group in the U.S is appropriate..

Consider this quote from a master’s thesis written by a then five-year veteran of Muni, Jim Olson, a white man, who talked about his disdain for bus drivers when he began his training to be a transit operator:

Five years ago—January 2, 1973—I began my “temporary” career with the San Francisco Municipal Railway. My only knowledge of the system at that time was that: the fare was twenty-five cents, it took forty-five minutes on the 14 Mission Line” to cover the five of six miles from where I lived in the “outer Mission” to where I once worked in the financial district, and bus drivers were nasty and overpaid (Their wages were higher than mine, and I was wearing a business suit) (Olson 1978).⁴⁵

Similarly, one of my participants spoke with dismay about how his job was treated in his social circle of “black folks who think they’ve made it – working around white folks, wearing a suit and tie.” He recounted a conversation at a dinner party where he was asked, “Are you still a bus driver?” He replied, “Yes, and it’s keeping my wife and family off welfare!” (His wife is a social worker.)

⁴⁵Mr. Olson retired from Muni, where he last worked as a cable car conductor in 2002).

These attitudes are not uncommon. Operators, although proud of what they do, correctly sense dismissiveness from much of the public they serve. The cool pose protects against that. In fact, even their preferred term for their job – transit operator – can be understood not only as technically appropriate since they “drive” many different kinds of equipment besides buses, but also as a way of distancing themselves from the derision that accompanies the term “bus driver.” A common saying among Muni employees is that “it takes five years to become an operator.” You have to learn the social and technical skills of this job, you have to develop an occupational *habitus*, as I proposed in Chapter One (Bourdieu 1990:66-79). The cool pose is part of that habitus.

The “public servant” aspect of the job adds a layer of complexity to this analysis.⁴⁶ Muni management communicates to its operations personnel through bulletins. In the area just below the logo and just to the left of the bulletin number, above the topic title of the specific bulletin is a slogan in the form of a reminder:

REMEMBER SERVICE IS OUR ONLY BUSINESS⁴⁷

with colored letters of the paper stock the bulletin’s printed on contrasting against the black box containing the message. Management presents to the public at large the image of operators eager to do whatever they can to “serve” the public. Recent examples of this kind of representation are evidenced in the “Our ComMUNItY” ad campaign depicting

⁴⁶One of my black research participants expressed his indignation over the term “gilley room” because of the translation of “gilley” as ‘boy’ or ‘servant’ from the Gaelic. For blacks in America, this connotation has painful connections to the history of slavery, and to define a Muni transit operator, especially a black one, as a “public servant” may be very problematic.

⁴⁷Actual representation of typography recorded here.

operators in street clothes with brief, positive quotes from them expressing their feelings about work and a short bio detailing their personal lives, often listing community service activities. Operators also frequently told me that the satisfaction they derived from the job was their experience of “helping people,” but the fact is, the ethic of service severely contradicts the day-to-day on the street reality of driving a bus, as some of the elements in the first portion of this chapter highlight. This management environment will be described at greater length in the next chapter. Here it is sufficient to point out this disconnect between experience and expectation.

Like the flight attendants that Arlie Hochschild portrayed in her classic book, *The Managed Heart* (1983), Muni transit operators are expected to engage in “emotional labor.” Hochschild defines emotional labor as “labor that requires one to induce or suppress feeling in order to sustain the outward countenance that produces the proper state of mind in others” (1983:7). The transit operators’ adaptation to this emotional labor requirement is the cool pose. In the case of the flight attendants, the mandate from airline management was service with a smile because that’s what keeps the customers coming back, and gives the airline a competitive edge. Advertising campaigns from the 1960s and 1970s bring home the point: “Fly the **friendly** [my emphasis] skies of United,” or “Delta is ready when you are.”

What is significant about emotional labor is the disconnect between what an incumbent is actually feeling and the face that they are asked to convey. Hochschild uses the language of Marx to make her points, describing “emotion work” – the private acts of

inducing a kind of emotional self-presentation to the world as having “use value,” whereas “emotional labor” has “exchange value” (Hochschild 1983:7 footnote).⁴⁸

In private life, we are free to question the going rate of exchange and free to negotiate a new one. ... But in the public world of work, it is often part of an individual’s job to accept uneven exchanges, to be treated with disrespect or anger by a client, all the while closeting into fantasy the anger one would like to respond with. Where the customer is king, unequal exchanges are normal, and from the beginning, customer and client assume different rights to feeling and display. The ledger is supposedly evened by a wage. (1983:85-86).

The managers of both flight attendants and transit operators like to present them as the public faces of their respective organizations but there are obvious differences between the sites of work. One of the major differences, of course, between transit operators and flight attendants is the duration and quality of the contact. When Hochschild conducted her study airline deregulation had not yet taken effect and those flying in airplanes could reasonably be expected to comport themselves according to a “middle class” standard.⁴⁹ Indeed, Hochschild comments that flight attendants were trained to think of airline cabins as analogous to living rooms (1983:109).

It is hard to imagine the interior of a typical articulated 60 footer traveling up Geary Street as anything at all like a bourgeois living room. Beyond the ten second exchange at the door, operators hope to minimize their exposure to their passengers. A friendly nod or greeting perhaps, maybe a bit more of a smile for your regulars, but

⁴⁸Hochschild borrows these terms from Karl Marx. See *Capital*, section titled “Commodities: Use-Value and Exchange-Value: “The utility of a thing makes it a use-value” (page 421). Exchange value is determined relative to a market for thing (product of labor) and is usually defined in monetary terms (Marx 1977 [1867]).

⁴⁹The deregulatory features of P..L. 95-504, enacted in 1978, did not take effect until January 1983.

passengers are “forgotten” once they cross the yellow line.⁵⁰ This was described to me more than once as a kind of detachment necessary for survival.

One of my study participants, who at the time of our sessions had been an operator for twenty-eight years, and whose father had been a Muni transit operator before him, told me that it took him “five years before he could sleep at night,” when he first started working for Muni in 1973. He went on to say, “I pass this on to new operators so they can benefit from my mistakes. I was never able to disassociate myself from what happened during the day.

Eventually an old timer⁵¹ told him, “You realize; they’s people sitting up at night thinkin’ up ways to antagonize the bus driver because that’s the first person they see when they leave the house in the morning.” The old timer was teaching him to depersonalize the experience and my participant learned the lesson: “Once they got past that yellow line, they no longer existed to me.” This is where the emotional labor of bus driving and the cool pose habitus of transit operators meet.

These concepts will be found throughout the subsequent chapters of this dissertation, most notably again in Chapter Four, “My Job Makes Me Sick.” For the moment, I will leave these strands out in the open to be picked up for further weaving later, as I pick up different threads to weave in Chapter Three, “San Francisco and the

⁵⁰The line on the floor at the front of the bus, separating the entry area (where the driver’s compartment, fare box and steps are) from the rest of the bus. Passengers are not supposed to stand in this area when the bus is in motion.

⁵¹An experienced operator; e.g., a senior operator.

Municipal Railway,” which provides the larger historical and institutional contexts for understanding the occupational health issues of Muni transit operators.

CHAPTER THREE

SAN FRANCISCO AND THE MUNICIPAL RAILWAY

In spite of a persistent fiction, we never write on a blank page, but
always on one that has already been written on.

Michel de Certeau 1984:43

Introduction

Cable cars are among the most famous images of San Francisco in the public imagination. Made popular in the 1960s across the United States by Rice-a-Roni commercials,⁵² the clang of the cable car bell is an auditory reminder of the City. Singers and writers have repeated “to be where little cable cars climb half way to the stars” from the song “I Left My Heart in San Francisco,” so often that it has become a cliché. What is seen as a sophisticated amusement park-like ride for the tourists who come from far and wide to visit the city is a real and vital source of everyday transportation to many San Francisco commuters traveling from their homes in North Beach, Chinatown, Nob Hill and Pacific Heights to the Financial District. The cable car lines are enduring symbols of San Francisco history and the history of public transportation in the United States. They represent the “ur” moment in the evolution of the public transportation system in the city. The lines that remain running – Powell-Mason, Powell-Hyde, and California Street – serve to remind that these vehicles once traversed all of the developed regions of the city and contributed to the population growth and physical expansion of the city. The present

⁵²The lyrics are: “Try Rice-a-Roni, the San Francisco treat! Rice-a-Roni, everybody’s got to eat! Started out where cable cars played this song [*distinctive cable car bell rings here*], then tried at home before very long, Rice-a-Roni, the San Francisco treat!”

job descriptions of the transit operators who work those machines – “gripman” and “conductor” – remind us of the ways that history is sedimented into present practices.

This chapter provides the reader with historical background on the city of San Francisco and the San Francisco Municipal Railway. It begins with a sketch of San Francisco geography and early history which I believe is essential for understanding the circumstances that led to the creation of the San Francisco Municipal Railway at the turn of the twentieth century. I paint a broad brush picture of the origins of Muni, and then zoom in on the past ten years. The chapter concludes with an overview of Muni’s organizational structure. This background provides the reader with in-depth spatial, temporal and social contexts for understanding Muni transit operators’ early twenty-first century work environment.

The historical context highlights the critical role of intra-urban transportation systems in the growth and development of American cities in the 19th and 20th centuries through the lens of the specific case of San Francisco. Following the analysis of urban historians such as Sam Bass Warner (1972) and Philip Ethington (1994), this discussion situates San Francisco in its regional and national economic frameworks. This is important because it gives the reader more depth from which to appreciate the crucial but generally unappreciated role of public transportation in the present day economy of the city and region. In many ways, the history of San Francisco and the history of Muni are inextricably bound. After the Gold Rush in 1849, the city’s growth was dependent upon developing networks to and from the wharves where the ships that did the long haul transporting of people and things docked, in order to facilitate commerce both inside the city and throughout the region. As this commerce grew, so did the need for these

networks, including ways and means of getting workers back and forth to the centers of industry within the city. When San Franciscans passed a City Charter in 1900 that called for the eventual city ownership of **all** public utilities, the first two to become “municipalized” were the water system and the railway – again, a manifestation of the interconnectedness of transportation and commerce that is the source of growth in all cities.⁵³

There are themes present in the discourse about public transit in San Francisco from long before the Railroad’s inception that have been carried forward into the present day. These include:

- a tendency to extol the service that Muni provides and a kind of civic boosterism about Muni (especially in the symbol of the cable car),⁵⁴
- a focus on “downtown,” including efforts to make sure that the needs of the businesses/capital enterprises are taken care of, sometimes to the detriment of the poorer classes/neighborhoods
- a distrust for who’s making money (i.e. profiteering real estate speculators then and now)
- a characterization of transit operators as mostly ill mannered, lazy, uncouth, and even dangerous to riders
- an emphasis on the physical discomfort involved in riding public conveyances

⁵³These remain the only two public utilities in the city and county.

⁵⁴An example of this can be seen in a tourism advertising insert from San Francisco Chronicle on June 23, 2004 featuring a picture of a cable car traveling up a hill, with the vistas of the skyline and the bay in the background. Often the cable cars are distinguished from the rest of Muni, even in the minds of Muni employees. For example, while visiting the Cable Car Museum (housed inside the Muni Cable Division) in the fall of 2000, a clerk told me that cable cars were “better than” Muni. Similarly, a regular commuter on a line told me essentially the same thing during a conversation I had with her while on a ride-along.

These themes and the role of the newspapers that helped to generate them will be further discussed later in this chapter. The chapter begins with San Francisco's landscape. This is important because it speaks to how the technological innovation that originated in San Francisco – the invention of the cable car by Andrew Hallidie – was inspired by its uniquely difficult geographic features – steep hills and shifting sand dunes with sand blown every where by the wind. These geographic elements were extraordinarily hard for horse-drawn omnibuses and steam engines (the extant transit technologies) to negotiate. The invention of the cable car grew out of Hallidie's experience as a mining engineer designing the wire rope, or cable for the large containers know as ore skips that carried the wealth of the Comstock mines out of the mining pits (Brechin 1999:65)

The story of the development of the cable car lines also has to be situated in the development of San Francisco as a city, which is best seen in the larger context of trends in American history. Even a cursory exploration of these larger trends helps the reader to understand how and why the so-called Progressive Era (roughly 1890 -1920) was manifest in San Francisco as “municipalization” and faintly reveals the social history – the workers movements that have played a role in developing the union that represents Muni today.

After outlining the emergence of Muni in the first and second decades of the 20th century, I skip rapidly forward to the century's end in order to understand the immediate political and historical environment of the transit operators who participated in my research. Finally, the chapter concludes with a look at the basic organizational structure of the present day Municipal Railway.

Theoretical Justification: Given my focus on the health practices of a small number of Municipal Railway employees, the question might justifiably be asked, “is this

historical material really necessary?" Practice theory supplies the argument to answer that question in the affirmative.

Giddens points out that in classic functionalist anthropology and sociology time and history were implicit in a model of social structure that consisted of two elements: "the patterning of interaction, as implying relations between actors or groups; and the continuity of interaction in time"(Giddens 1979:62). But because of the tendency of functionalist ethnography to present "snapshot" or synchronic views of cultures, the element of time tended to be deliberately eschewed.

But the essence of structure, what Giddens describes as "social rules and resources," only become meaningful in **praxis**, that is, as applied by social actors in a **specific** time and space. This enactment of structure takes the form of social systems, which, at their most concrete level, become social institutions. One of the aims of this chapter is to reveal the longstanding patterns of interaction between this public utility, its employees and interested power-holders, including large land-owners, and the media, especially newspapers. Following Giddens, I will reveal what he calls recursivity and relationality: how structures "pre-form" social action, and how social action "re-forms" structures, or more simply stated, social life that insists on being played out in time.

The point here is that the present social world is constantly influenced by historical contingencies. Steven Gregory's invocation of Marshall Sahlins drives home this argument:

To have shunned ... history or treated it as a mere backdrop for an otherwise atemporal "ethnographic present" would have rendered the political culture, antagonisms, and struggles of the present unintelligible, if not banal. For what would have been lost, as Marshall Sahlins has pointed

out in a related context, “is not merely history and change, but practice – human action in the world” (Gregory 1998:14-15).

In the instant case, the relationships in the field of inter-urban transport are the ones to watch, to notice how the beginnings, though not determinative, shape the present day nature of the Municipal Railway in its relationships to stakeholders in the city, including the men and women who work for it.

San Francisco: Geographic and Historical Overview

The city and county of San Francisco⁵⁵ stick out like a right thumb. (See Figure 5.) If you make the OK sign with your right thumb and forefinger, you have a bodily representation of the Bay Area: your forefinger tip is Marin County and the space between your forefinger and your thumb is the Golden Gate, so named for the golden color of the grassy hills and mountains that defined both sides of the inlet to the San Francisco Bay and which, on the Marin side, look much as they did when the region was first explored by the Spanish.

San Francisco proper is the tip of your thumb to its first joint, almost square, roughly seven miles by seven miles, a peninsula surrounded by the waters of the bay for most of the northern and all of its eastern edge and slashed or lapped (depending on the season) by the Pacific Ocean along its western coast. The city is built on top of a series of hills which are part of California’s Coastal Range. The hills are the commanding glory of the city. From their crests you are afforded amazing vistas of the entire region – looking

⁵⁵San Francisco is the only city and county combination in California with completely contiguous boundaries.

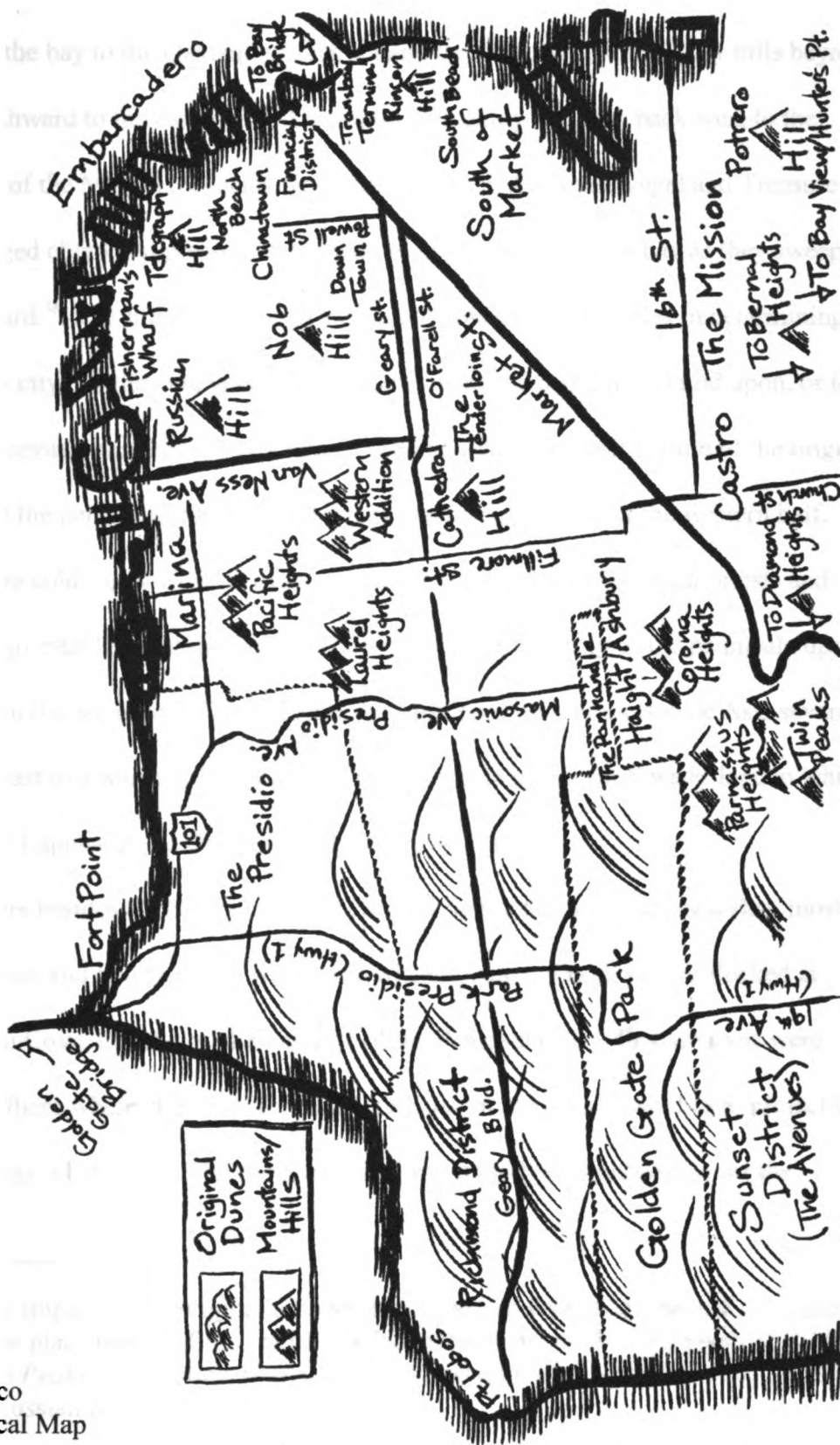


Figure 5
San Francisco
Topographical Map

east across the bay to the Oakland waterfront and the Oakland and Berkeley hills beyond, curving northward to the easy rise of Contra Costa County and then back west to the golden hills of the Marin Headlands, your eyes taking in Alcatraz, Angel and Treasure Islands, rugged chunks of green in the moody blue-gray water of the bay as they sweep back westward.⁵⁶ The hills were one of two major controlling variables in determining the layout of the city, for they are very steep in some cases and difficult to build upon, or to bring the necessary supplies to build upon. The second prominent feature of the original landscape of the peninsula was the sand dunes that covered much of the western half. The dunes and the cold foggy weather of the ocean side persuaded the Spanish priests and explorers who established a military garrison on the northmost tip of the peninsula upon first arrival in the region in 1775, to locate the Mission of San Francisco de Asis several miles southeast in a warmer, flatter area of the peninsula near a fresh water lagoon which they called it Laguna de los Dolores (Richards 1991:32).⁵⁷

Others besides the Spaniards were also arriving in the San Francisco Bay, mostly traders in hides and tallow, along with some whaling ships. These vessels docked at Yerba Buena Cove, an inlet on the bay side of the Peninsula. The first wharves were constructed there where ships could be harbored alee of the Pacific winds and protected from the ocean's battering. The cove was thus well-suited as an anchorage for the

⁵⁶The impact of the original topography of the San Francisco peninsula remains present in the place names of the earliest settled areas: *Rincon Hill*, *Telegraph Hill*, *North Beach*, *Twin Peaks*, *Noe Valley*, *Bernal Heights*, *Vistation Valley*, *Potrero Hill*, *Mount Davidson*, *Russian Hill*, *Nob Hill*, *Pacific Heights*.

⁵⁷Named such because the area was discovered on the Friday before Palm Sunday, known in the Catholic religion as "the Friday of Sorrows," or "*Viernes de los Dolores*" in Spanish.

European and American sailing ships that at first trickled, but eventually flooded the city. The first permanent residence not connected with the Spanish mission enterprises was built here in 1835 and the original streets of the city (then known either as Yerba Buena or San Francisco) were laid out – the very first of these being *Calle de la Fundacion* along the route that is now known as Grant Avenue. Again, the land was flat, the weather was warmer and the proximity to supplies coming from sailing vessels and relative ease of transporting those supplies from the harbor to their final destination made this a desirable location (Warner 1972:82). Additional support structures – stores, houses, warehouses -- necessary for commerce and shipping – soon sprung up. The original grid of the city was laid out along the lines of a typical Spanish town, centered on an open plaza (Richards 1991:38). The plaza was eventually named Portsmouth Square.⁵⁸

The settlement pattern of the city tells you about the obstacle that the hills represented. More than one historian of the city has pointed out that the expansion of this grid layout over the mountainous terrain of the northeast quadrant of the city was an historical fluke and an urban planning nightmare (Brechin 1999; Lewis 1980; Richards 1991:38). It was just this contingency that was to cause the intra-urban transportation nightmares that led to the invention of the cable car.

San Francisco's growth during the first half of the nineteenth century must be seen in the context of the westward expansion of the United States and the northward expansion of Mexico. Long before the discovery of gold in 1848 there were many in the United States government who knew that there were extensive mineral resources to be

⁵⁸Named such in 1846 when Yerba Buena was claimed for the United States by Captain John Montgomery, upon arrival in his ship, the Portsmouth. (Loewenstein 1984:93).

exploited in California (Brechin 1999:29). Though it was part of the territory of Mexico (which had declared independence from Spain in 1821), *Alta California* was sparsely populated, loosely held and easy picking for U.S. imperial ambitions (Brechin 1999:29-30). Adventurers, settlers and desperadoes from the United States and Europe were making their way west, steadily accumulating in key locations along the central Pacific coast of the continent, and San Francisco quickly became the main Western port for these travelers, an arrival point from which to travel farther.

The California territory was also at play in the United State's debates over slavery which were becoming increasingly contentious during much of the second quarter of the 19th century. The economics of slavery were at the center of a struggle for economic and political power between the northern (free) and southern (slave states). Southern states' economies, built on intense, land-depleting agriculture of tobacco and cotton required more land to annex. For example, Texas was a former Mexican territory which had gained its independence in 1836. It became the rallying point for Southern states eager to add it as another slave state, which would tip the balance in their favor. But it was not until 1845 when a Virginian (slave state), President James K. Polk managed to annex it, and provoked war with Mexico over Texas's southernmost boundaries in specific and its remaining northern territories – New Mexico and California. The war lasted from 1846 to 1848 and its outcome was never in doubt. At the Treaty of Guadalupe Hidalgo (signed in 1848), Mexico acceded these territories in exchange for “a small sum” of money.⁵⁹

⁵⁹The territories of Alta California and Nuevo Mexico comprise California, New Mexico, Arizona, Utah, Nevada and parts of Wyoming, Oklahoma and Colorado. (Miller 1962:216-218)

The impact of this war in San Francisco was seen in the U.S. Army's claiming the Mexican fortress, the presidio and the village of Yerba Buena being renamed San Francisco by Washington Bartlett, the first American "alcalde" of the city in 1847. Bartlett had been appointed *alcalde* by John Montgomery who had claimed the city for the United States at the start of the Mexican-American war in 1846. California statehood remained a bone of contention in congressional debates over slavery until it was resolved as part of the congressional deal making known as the Compromise of 1850, which permitted it to join as a "free" state, provided that the status – slave or free – of subsequent admissions to the United States would be determined by "popular sovereignty." The Compromise also loosened federal laws regarding fugitive slaves so that a jury trial was no longer necessary for adjudication of status, only an affidavit was required for proof of ownership and the payments to the federal official who adjudicated the claim was set so that he received \$5.00 if he found in favor of the alleged slave, \$10.00 if he found in favor of the alleged owner.

No doubt the impetus to come to an agreement regarding the annexation of California was hastened along by the discovery of gold in January 1848. It was found at Sutter's Mill, a small enterprise in Sacramento, about ninety miles north of San Francisco. John Sutter's efforts to keep the discovery secret were fruitless, and by 1849, the Gold Rush was on and San Francisco was the epicenter of an onslaught of fortune seekers.

An account of its population growth over the decades between 1776 and 1870 tells the story. In 1776, "a few hundred [Spaniards]" populated the entirety of California (Muscatine 1975:31), by 1802 it was estimated that approximately thirteen hundred "whites, mestizoes and mulattoes" inhabited the Mission and the Presidio (Soule, Gihon,

and Nisbet 1966 [1855]:50). A year after John Montgomery claimed Yerba Buena for the United States in 1846, its (white) population was around four hundred. In March 1848, according to a school census, the population of whites in San Francisco was eight hundred and twelve; by 1850, at the time of the publication of the first city directory, estimates of the city's population range from twenty to twenty-five thousand. By 1852, it had grown to approximately thirty-five thousand (Hansen 1980:2). Twenty-seven thousand people had arrived at the port of San Francisco during that year, a "slackened" growth relative to previous years, and a larger number had left through the same port (Soule, Gihon, and Nisbet 1966 [1855]:357). By 1860, the population was close to fifty-seven thousand (Hansen 1980:2; San Francisco Municipal Railway 1999b:10). Though the "rush" was essentially over by 1853, its reverberations continued through the rest of the century (Brechin 1999:34). Human ingenuity would find a way to exploit the mineral wealth that was now known to exist under those forbidding Sierra mountains and make a profit on it at almost any cost.

The subsequent decades of San Francisco and indeed California history continue a story of efforts to exploit the mineral wealth of the region. Once the surface gold had been removed, much more destructive mining practices, including laying waste to entire forests and channeling rivers to create the flumes to wash the ore out, and the laying of railroads to transport the ore to processing facilities were employed. Such practices needed heavy capitalization, and the money to back these mines came from the new old

money in San Francisco. When a way to productively extract the silver ore from Nevada's Comstock Lode was developed in the 1870's, a second rush was on.⁶⁰

The mining operations spawned entire additional support industries – Levi Straus's blue jeans are legendary in this context – and the continued industrial and commercial activities contributed to San Francisco's continued rapid growth throughout the second half of the century. By 1870, San Francisco had become the eighth largest city in the United States, fully integrated into the national economy which centered on the six "big cities" of the east: New York, Philadelphia, St. Louis, Chicago, Baltimore and Boston, and was the center of the Pacific Coast's regional economy (Warner 1972:70-71).

Public Transportation in the City, 1850-1880

Intra-urban transportation for the first dozen or so years of post-Gold Rush San Francisco history consisted of horse-drawn omnibuses and hansom cabs (called "hacks") for hire. Omnibuses had appeared in New York in the 1830s, the invention of Abraham Brower. Described as "boxes on [wagon] wheels" (Throm 1952:86), these vehicles seated anywhere from twelve to eighteen people and were propelled by one or two horses depending on their size. A New York Herald editorial described a typical omnibus ride:

Modern martyrdom may be succinctly defined as riding in a New York omnibus. The discomforts, inconveniences and annoyances of a trip on one of these vehicles are almost intolerable. From the beginning to the end of the journey a constant quarrel is progressing. The driver quarrels with the passengers, and the passengers quarrel with the driver. There are quarrels

⁶⁰Brechin describes the Nevada Territory as part of San Francisco's *contado*, a term he employs to express the sphere of economic influence that a major city controls (Brechin 1999: 40).

about getting out and quarrels about the ticket swindle⁶¹. The driver swears at the passengers and the passengers harangue the driver through the strap hole⁶² – a position in which even Demosthenes could not be eloquent. Respectable clergymen in white chokers are obliged to listen to loud oaths. Ladies are disgusted, frightened and insulted. Children are alarmed and lift up their voices and weep. Indignant gentlemen rise to remonstrate with the irate Jehu⁶³ and are suddenly bumped back into their seats twice as indignant as before, besides being involved in supplementary quarrels with those other passengers upon whose corns they have accidentally trodden. Thus the omnibus rolls along, a perfect Bedlam on wheels (Throm 1952:85-86).

At the same time, street railways were also being constructed in New York. These were also propelled by horses, but the rail carriages were larger, holding as many as thirty passengers and the ride much smoother as a result of the rails compared to cobblestones paving most city streets in 1800s. Throm notes that the “tramway” idea began to take off in eastern cities in the 1850s. And, unsurprisingly, there was significant opposition – not too different from the kind of criticism one hears about public transportation systems today. For example, the *Philadelphia Sunday Dispatch* sniped, “It is perhaps scarcely worthwhile to allude to the fact that in New York City they kill one person each week on

⁶¹Throm explains that fares were originally “collected by a boy who rode on the rear steps, but he soon gave way to a fare box which was pulled up through a hole in the roof by the driver atop the vehicle. Any change was supposed to be returned in the same way. But the driver, safely outside the coach, was impervious to any sounds within, and it became well known that a passenger had to count his change carefully.” (1952:86)

⁶²From Throm 1952, page 86: “Not only could the driver not hear, but there was no way for him to see the inside of the omnibus. His signal to stop came from a strap attached to his leg and running to the back door. A tug at the strap meant the door in the back was open and the driver was to stop. If the strap was loose, he knew the door was closed and he could proceed.”

⁶³From the Oxford English Dictionary Online: Jehu, n. *humorous*. [In allusion to 2 Kings IX.20, “the driving is like the driving of Jehu the son of Nimshi, for he driveth furiously’.] a. A fast or furious driver. b. A driver, a coachman.

city railroads and mangle three or four on average in the same space of time. Human life is really of little value nowadays” (quoted in Throm 1952:88).

In San Francisco, the “first recorded public transportation was an omnibus line that ran on a half hourly schedule between Portsmouth Square and the Mission,” a distance of approximately three and one half miles (Lewis 1980:115-116; San Francisco Municipal Railway 1999b:5). This vehicle took people and things from the wharves where they had been off-loaded from ships – the major means of inter-urban transport in the nineteenth century and especially the West Coast until the completion of the transcontinental railway in 1869– to the major settled area of the city at that time.

In 1860, a new form of transportation, streetcars pulled by steam dummy engines rolling on rails, arrived on then recently laid out Market Street (Hunt and Ament 1929:188). Horse-drawn streetcars began to compete with these vehicles and by 1867, the San Francisco Board of Supervisors banned steam railways in favor of the horse-drawn variety.⁶⁴ In 1870 there were seven horse-drawn street railroads. These railroads employed eight hundred men and fifteen hundred horses who drew the two hundred cars in daily use on fifty miles of track (San Francisco Municipal Railway 1995). A writer from the period described the public transportation in the city in the 1870s as follows:

Nature is in league...with the hackmen and railroad companies. In summer, she drives the pedestrian into the horse-car [omnibus] or hack, to escape the tempestuous gale that heralds its coming by billows and clouds of sand and dust that come rolling down the highways. In winter, they fly to the

⁶⁴I have not been able to determine why, but speculate that it was because they were noisy, dangerous, and scared the horses of hacks (cabs for hire) and private carriages which would have been used by the more prosperous (and higher up on the power hierarchy) members of the community.

street car [street railway] for shelter, to escape the drenching rain that comes down in torrents flooding sidewalk and street (From Hunt 1929:188 , quoting *Lights and Shades of San Francisco* published in 1876).

In the late 1860s (accounts differ as to the exact date), Andrew Hallidie, a mining engineer and owner of California Wire Works (established 1857), set his mind to the task of devising a better way to move people and things up and down the hilly streets of San Francisco. Legend has it that he was moved to do so after witnessing a horrifying streetcar accident caused by an exhausted horse slipping while pulling a streetcar uphill and/or by his more general observations of mistreatment of the horses by the streetcar drivers (Cole,1981:87; Richards, 1991:136)⁶⁵. For this purpose, Hallidie adapted the flat woven-wire cable which his company made and which he had developed to carry laborers and silver ore in and out of the Comstock mines (Brechin 1999:65). Although Hallidie is usually given sole credit for this invention, he actually incorporated the design of another engineer, Benjamin Brooks, who, in 1870 had “obtained the first city franchise for a street cable transportation system, ‘an endless wire cable, laid under the surface of the street and operated by a stationary engine’” (Muscatine 1975:195).⁶⁶ Hallidie bought Brooks’s

⁶⁵From Hunt & Ament, pages 188-189, again quoting *Lights and Shades of San Francisco*, published in 1876: “Cars, the weight of which alone are sufficient loads for the thin, trembling animals that draw them, are jammed and crammed with passengers. With oft-repeated reminders from the driver (who really has a tender feeling for his team, and would fain befriend them), the willing brutes exert their utmost strength, and stumbling and staggering over the cruel cobblestone pave, or straining and surging for a firm foothold on the slippery road, they plod along as best they may, hour after hour, until from sheer inability to proceed they are relieved from duty.”

⁶⁶Hallidie’s fame reminds us of Sir Francis Darwin’s remark: “in science the credit goes to the man who convinces the world, not the man to whom the idea first occurs (Cite: Bartlett’s)

franchise – the Clay Street Hill Railroad – in 1872 and ran a successful test in early August 1873.⁶⁷ The line quickly turned a profit and other entrepreneurs quickly obtained franchises from the city government for additional cable lines. The California Street line, which still runs today, was the next opened in 1878 and seven more lines followed (Beebe and Clegg 1951:50).

Money, Power, Labor and Reform: The Progressive Era and the Birth of Muni

By the 1880s eight cable and street car lines, all privately owned, laced the city of San Francisco, often times with their tracks or cables running parallel down major streets. But the cable technology, though important in the development of urban transportation systems across the United States (Throm 1952:105), was not the only element in play here. Economics, technology and social dynamics combined with unusual effervescence in San Francisco, it seems, but the local events must be seen within the larger framework of developments in national social and political history.

Warner has written about the relationship between urban transportation systems and real estate speculation (e.g. Warner 1972 ; see also Warner 1973 [1962]). He writes:

Speculators also determined in specific ways the locations of heavy public and private capital expenditures. The history of the placing of a canal, *railroad*, county seat, or hospital is more often than not the history of

⁶⁷Dates differ: Brechin 1999, Muscatine 1975 and Richards 1991 all report that this occurred on August 1; Hansen 1980 and Cole 1981 report August 2. According to Muni's official history, Hallidie's franchise expired on August 1, and he was contractually required to prove that the cable system worked by then. The truth was that the line's test run actually occurred on August 2, but Hallidie succeeded in having the date changed on many of the newspaper reports of the time, thus protecting his financial interest (San Francisco Municipal Railway 1999b).

interested investors who hoped to acquire overflow benefits for their properties” (1972:20, emphasis added).

The cable technology made it possible to travel to and from the area west of downtown, terrain that had hitherto been undeveloped because of the barriers the hills represented. The same financiers who invested in the cable car companies that sprang up after 1873 were also those who owned huge plots of undeveloped or underdeveloped land in the western regions of the city and stood to gain enormously were these areas to fill with stable middle class families in need of transportation to and from work and shopping districts located downtown. These were the barons of the Central and Southern Pacific Railways – names that are almost synonymous with San Francisco – Huntington, Crocker, Hopkins, Stanford – the same investors who financed the California Street (and later the Market Street) Railways. They were part of the small elite who held the large amounts of capital necessary to build a cable line and secure a franchise from the San Francisco city government for a relatively insignificant price and a percent of the gross. In fact, Southern Pacific owned most of the intra-urban transportation lines in San Francisco by the mid 1880s (Ethington 1994:297-299). This move typifies a consolidation of capital that was occurring in many sectors of American industry during the second half of the 19th century – the emergence of trusts and holding companies which enabled a few [corporate] giants (contemporaneously described as “robber barons”) to control entire industries (Miller 1962:304).

It is important to note that San Francisco is often depicted as if “invented”⁶⁸ by the early days of the Gold Rush – a kind of a free-for-all, equal battle for the bounty of nature’s mineral wealth, but it is actually more the case that even as early as four years after the “forty-niners” swarmed the city, that picture of the independent entrepreneur who could make a fortune overnight by dint of hard work obscured the reality of a few people with substantial capital at their disposal who had the ability to corner markets and accumulate still more.⁶⁹ .

During this same period, the fortunes of the working people in San Francisco ebbed and flowed with the booms and busts of the mining fortunes. During the boom times of the Gold Rush, able-bodied men (women were generally not working, except as domestics, laundresses, and prostitutes) could command salaries of \$16.00 per day (the price of an ounce of gold) (Soule, Gihon, and Nisbet 1966 [1855]:253-55). Laborers of all sorts had begun to organize and even unionize as early as 1849 (Muscatine 1975:402). The role of labor in U.S. history in general, and San Francisco history specifically during this era is debated. Some argue that labor actually lost power during these decades (Warner 1995) while others point to the role of labor activism in promoting reforms that have become the hallmarks of the Progressive Era, long before such ideas were

⁶⁸I mean this in the sense that Hobsbawm uses the term in his essay, “Inventing Tradition (1983).

⁶⁹Beebe and Clegg point out that “capitalist” was an occupation listed in the San Francisco city directory (1951:36).

popularized by the upper middle class activists who nursed them into law (Ethington 1994).

In California, it is notable that the first law that passed to limit work hours arose subsequent to a series of strikes (under the leadership of Frank Roney, the head of the Federated Trades Council) in 1886-1887 by streetcar men from various lines in San Francisco, angry over having to work fourteen to sixteen hours per day (Ethington 1994:305-306 San Francisco Municipal Railway 1995:13). Most companies eventually changed to a twelve-hour work day (for the same wage of \$2.50 per day), but some owners remained obdurate, leading to violence in December 1886. In March 1887, California's governor signed into law a bill that limited the work day of gripmen, drivers and conductors to twelve hours. Notably, this bill succeeded where twelve years earlier a similar attempt at changing the law had failed.

Ethington points out that this was the first time in U.S. history that a law was passed that protected a specific class of people (1994:306). From a more distant temporal perspective, it is important to situate this local labor unrest in the larger labor struggles and union drives that were being fomented in many cities across the United States and which are considered a key ingredient in the reform movements which have come to be known collectively as the Progressive Era (Zinn 1998:65-72). Indeed Zinn argues that it was the specter of socialism that drove the reform. Most unions espoused "socialist" principles including such things as the ten-hour workday, national health insurance and opposition to the growing power of monopoly capitalism. This period (roughly 1890-1920) has been defined as the triumph of conservatism (Kolko 1963) because the reforms

enacted during the Progressive Era were promoted by business interests driven by enlightened self-interest seeking to stabilize the capitalist economy, nothing more.

Though reform laws passed during this era, “fundamental conditions did not change... for the vast majority ... of working men and women.” (Zinn 1998:67). Nonetheless, the role of labor unions in pushing for some of the changes that now define the Progressive Era is impressive: limits to the length of workdays (discussed just above), introduction of child labor laws, even workmen’s compensation all have origins in the labor activism of the 1880s and 1890s (Ethington 1994:338).

Another element in this equation was the growing disgust that the voting populace was feeling toward local, state and federal politicians, who were seen as becoming increasingly corrupt. This encouraged reform tickets in political campaigns and a revision of the rules of the political game to make it easier for the populace to institute change.⁷⁰ This may have helped to elect civic-minded aristocrats across the United States. In the case of San Francisco, the examples of Adolph Sutro, mayor from 1895 to 1897, and James Phelan, mayor from 1897 to 1902 are relevant. Both were “patrician populists,” and Phelan was an avid proponent of “municipalization.” The argument for municipalization was that “cities [could be] managed as *business enterprises*” (Ethington, 1994:30, emphasis added) and that city (municipal) governments could do a better (read: more efficient) job than private enterprises. Phelan’s term culminated with popular vote

⁷⁰The Progressive Era is also the period during which “direct democracy” in the form of voter-initiated legislative mandates (i.e. initiatives, think Proposition 13) and office-holder recalls (think Governor Schwarzenegger) were fought for and eventually ratified as amendments to the California Constitution in 1911.

approval of a change in the city's charter which "set the goal" of city ownership of public utilities. The charter came into effect on January 1, 1900 (Hansen 1980:40). The beginning of the relevant provision read:

ARTICLE XII: ACQUISITION OF PUBLIC UTILITIES: It is hereby declared to be the purpose and intention of the people of the City and County that its public utilities shall be gradually acquired and ultimately owned by the City and County... (quoted in Perles 1981:15)

The first concrete attempt at municipalization in San Francisco was the movement to make the transit lines public.⁷¹ This movement represented a coalition of middle class reformers and business interests. The argument presented was that under City management and control, the street railroads would be more efficient and therefore run better. There would be less duplication of lines (the northeast quadrant of the city was over-served) and practical plans to extend the service to the "Western Addition" could be implemented. Specifically, the City targeted the Geary Street Railroad, making its first move in 1896 when a court ruling prohibited the long term extension of the company's franchise, expiring in 1903 (Perles 1981:15).

Municipalization of the street railways would disturb powerful interests already deeply rooted in the City's economic structure and was highly contested. Newspapers were commonly the vehicles through which public opinion was formed in this era (Ethington 1994:309-315). Early in this chapter we saw example of how news reports

⁷¹The other municipalization project that occurred was the provision of a secure source of water for the rapidly growing city. This resulted in the annexation of Yosemite Valley's sister, Hetch Hetchy. In this transaction, the same combination of greed and power combined with practical needs assessment came into play (see Brechin 1999, chapter two, "Water Mains and Bloodlines," pp. 71-117, for a fascinating description of the power struggles).

helped to shape attitudes in the description of the omnibus ride from the *New York Herald*.

In San Francisco, a similar debate had, and was continuing to rage.

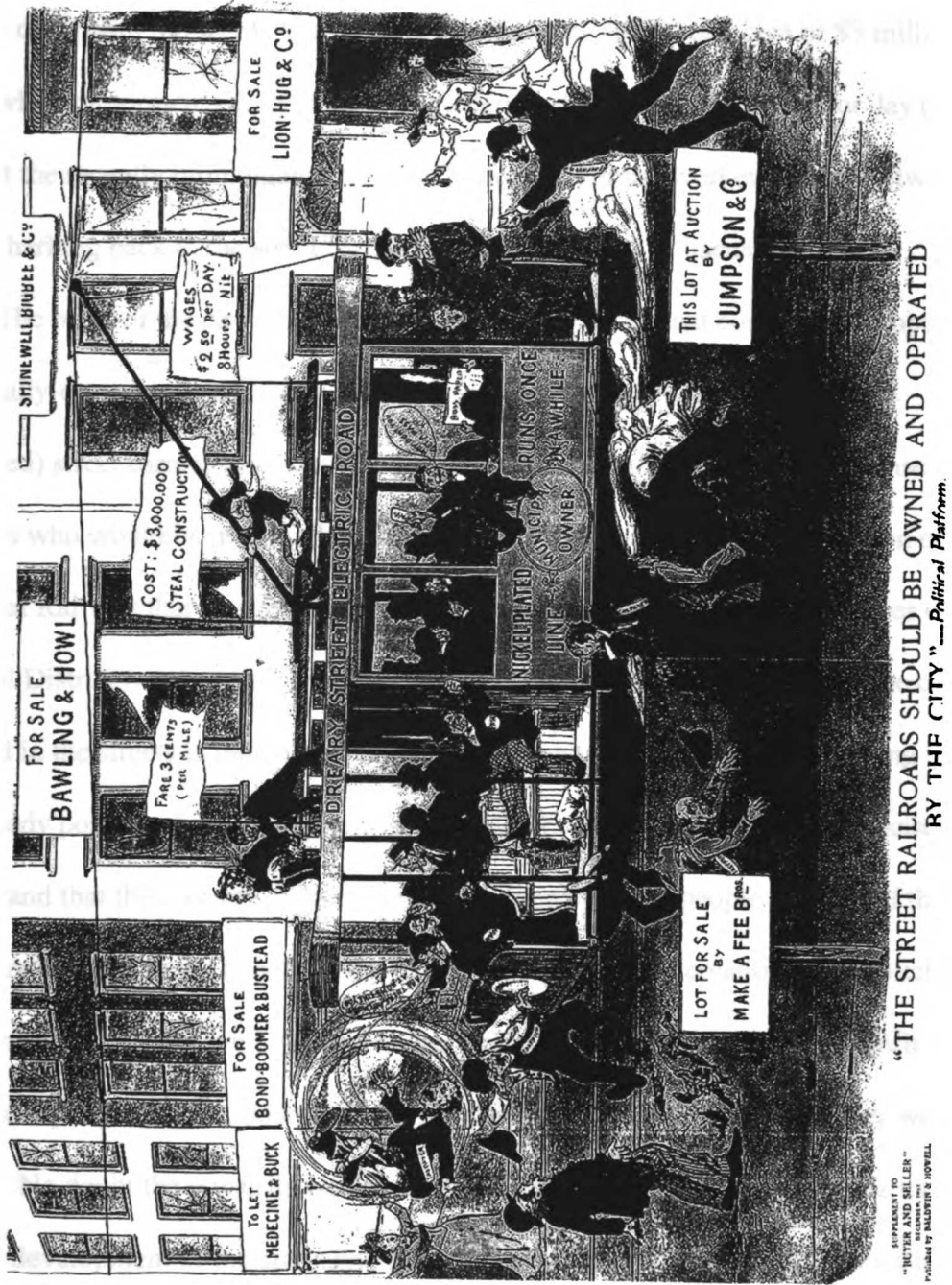
Hearst tore into streetcar companies for their many pedestrian accidents, having Nash⁷² portray the streetcars as vans of destruction driven by his trademark skeleton man. Now the genuine policy question of whether the Dempsy had served the city's residents by promoting the unregulated and unremunerative growth of streetcar and other utility franchises had a focused public voice in the Democratic *Examiner*. (Ethington 1994:342)

Representing the opposing viewpoint, a political cartoon facetiously titled, “‘The Street Railroads Should Be Owned and Operated By the City.’ – *Political Platform*,” was published at the end of 1901 as a supplement to “*Buyer & Seller*,” one of the many newspapers/magazines published in the city at the time. (See Figure 6.)

This cartoon satirized the movement to make the ownership of the street railways public by illustrating how this would only serve “the bosses” (riding an electric street car) and not the tax-paying public who are shown running to get on board, or leaping to get out of the way or getting crushed under the uncaring advance of the vehicles, whose motormen are depicted either as lollygagging in the rear doorway (blocking the entrance and exit of the tax paying public and indeed waving at a potential passenger, a derby-hatted gentleman with a cane who vainly hastens to board the street car) or sitting down and riding up front, shaking hands with one of the “bosses,” whose seatmate yells out to another gentleman labeled “taxpayer” who’s knocked upside down and still spinning in mid air, “Are there anymore at home like you?” The streetcar line is named Dreary Street, clearly a play on Geary Street, and the vehicle appears to run along a street depicting

⁷²Thomas Nash, a famous political cartoonist of the time.

FIGURE 6



abandoned commercial properties covered with for sale signs by such companies as “Bond, Boomer and Bustead” and “Bawling and Howl” (a pun on the newspaper publisher’s name – Baldwin and Howell). Ragged flags floating atop the streetcar show a fare of 3 cents with the words “per mile” in parentheses, and a total cost of \$3 million dollars while motormen’s daily salaries were depicted as \$2.50 per eight hour day (clearly a slap at the recently promulgated laws in California limiting workers’ hours to twelve per day and harking back to the street carmen’s strike of 1886-87, discussed above).

The point of the cartoonist was to highlight the exorbitant costs of the proposed municipally-owned railway, and to depict the real estate speculators and the lazy (unionized) street carmen who stood to benefit from its construction at the expense of the taxpayers who would be mowed down in its wake. The struggle over the creation of the Municipal Railway that was fought in the press, in City Hall, in the new high rises of the Financial District (made possible by the same technology that was used to run the cable cars) and in the streets is best seen, I think, as Ethington describes – a fight among those who already possessed substantial power. That their vested interests did not precisely overlap, and that there were sparks of resistance from working people in favor of the changes redounded to the benefit of those who saw good in the creation of a publicly owned transportation system. No doubt some real estate speculators stood to profit while some (clearly among them, downtown commercial property owners) feared they would lose out. No doubt the powerful landowners and financiers would gain far more wealth from the development of the city’s real estate to the west of Van Ness Street. But to see this only as the opportunism of the powerful monied classes is to oversimplify, I think, and

to give too much credit to the rich and powerful without acknowledging how middle class and working people also contributed to the outcome.

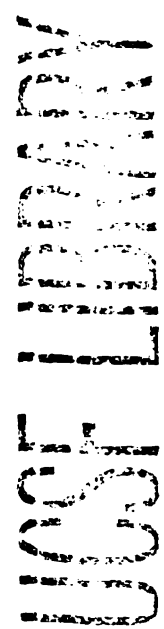
Once the new city charter was enacted, the city moved slowly toward acquiring back the franchise rights it had practically given away during the 1880s and 1890s. By 1903 it began the planning process for taking over the Geary Street cable line and replacing the cable with electric streetcar service which had become the most effective technology on all but the steepest hills. The years from 1896 to 1912 felt the birth pains of the civic entity that would become known as the San Francisco Municipal Railway, nicknamed “the Muni,” later shortened to “Muni.” Despite the auspicious “reformist” beginning, these early years were plagued both by natural disaster (the devastating earthquake of 1906) and fraud and corruption leading to additional reform uproar culminating in the passage of a municipal bond in the amount of approximately two million dollars to construct the new line (Perles 1981, page 19). Construction began amid court fights and further outcry in June 1911, and on December 28, 1912, the Geary Street Municipal Railway was inaugurated, charging 5 cents per ride and spanning the distance from Kearny and Market Streets to Tenth Avenue (San Francisco Municipal Railway 1995:30).

The history of the subsequent years is full of arcane real estate law and political wheeling and dealing. The city was fighting powerful forces – most of the streetcar/cable lines were owned or controlled by the Central and Southern Pacific Railroads, whose owners included a former governor of California (Stanford) and other well-known names of the Gilded Age. The details, though fascinating, are not necessary for this overview. It

was not until the early 1950s that the various private owners of franchises for transit lines were bought out and the public transportation system of the city had been completely municipalized.

This historical summary of Muni's birth both highlights and foreshadows themes that have dogged it from the beginning and that are present in current discourses – the charge that it is too expensive to run as a public enterprise, the charge that its employees are lazy “jehus,” and its seemingly permanent status as a political football to be kicked about by whoever has stakes in the underlying economic and political game being played at the time. The gripmen and conductors, the motormen, and now the transit operators remain throughout the most visible symbols for whatever the complaints that are being leveled against the railway at any moment in its one hundred year plus history.

A sampling of the kinds of public controversies that have raged over the years includes the efforts made by assorted mayors from the 1940s onward to dismantle the cable car system in favor of electric buses (Beebe and Clegg 1951; Murray 1947; Perles 1981, Chapters Nine and Ten, pp. 142-173) and the periodic pronouncements of service “low points” (e.g, Perles 1981, Chapter Eleven, “Stagnation, Decline and Reawakening,” pages 175-201 or “Rescue Muni” – see below.), and concerns over appropriate deployment of operators that were often expressed by the columnists and feature writers of the local papers. One example is a joke originally published in a 1929 edition of the *University of California Pelican*: “An elderly lady, climbing on one of our local variety of street cars, handed the conductor a transfer. ‘This is two days old,’ he growled. ‘I’ve been waiting patiently,’ she murmured” (Garchik 2000). On a more serious note, the



hiring of Audley Cole, the first black transit operator, in 1941 was the topic of public discussion although generally favorable in the press, though initially the source for a bitter struggle within what was then the union that represented the motormen (Broussard 1993:153-154).

This text from a report written in 1973 by SPUR (San Francisco Planning and Urban Research Association, a downtown business-aligned city planning group) is typical:

A deteriorating transit system decreases the quality of life in all parts of San Francisco. But Muni has problems. As a result San Franciscans suffer unacceptable transit service. Buses fail to run on dependable schedules. After long delays, two or three vehicles will arrive in a bunch. Vehicles are unattractive noisy and dirty. Drivers are not always neat, courteous and competent. The system is difficult to understand, and little information on how to use it is available (Perles 1981:203).

Discerning the objective truth of these observations may be impossible from this distance in time. In the course of my fieldwork I collected many “Muni stories” from all sorts of inhabitants of the Bay Area – native born to newly arrived. It was interesting to note how often I would hear of a “golden age” of Muni but the telling information was that the years of this golden age varied with the teller and bore no correlation to the “high” and “low” points that are recorded in the official (San Francisco Municipal Railway 1999b) and semi-official (Perles 1981) histories of Muni. The purpose of reporting these critiques is to underline, once again, the consistency of the themes across time into the present.

Recent History

When I began riding Muni regularly in 1996 as a first year graduate student, I had no thought that the operations of this transit agency would become the topic of my dissertation research. But I was fascinated by the signs I saw covering every surface of the inside of the light rail vehicles that I rode on the Muni Metro line, and specifically the N–Judah line that carried me from downtown San Francisco to the Medical Anthropology offices and classrooms in the old Laguna Honda School building at 9th and Irving, not far from Golden Gate Park. As I came to learn more about Muni through my research and my dealings with its transit operators, it occurred to me that each sign represents a concretized bit of the history of a power struggle that had occurred between various forces in the public and the Railway. For example, in the little window that separates the operator’s cab from the riding public, there are two signs, one providing the fare structure, the other, stating more mysteriously, “Transfers are issued only at time fare is paid. Operator must collect transfer at time of second use. Res. 1060-85 B of S.” This latter phrase, decoded, tells you that this was Resolution 1060 made during the year 1985 by the San Francisco Board of Supervisors and the history behind the sign is a story of disputes between operators and riders, sometimes leading to violence over the dispensation and collection of transfers, disputes sufficiently frequent and problematic that it required the attention of the County Board of Supervisors causing the Public Utilities Commission to go to the expense of having printed and posting this sign on greater than 1000 pieces of

equipment operating in the city. Though today this law has been partially superceded,⁷³ the sign remains, a structural residue, serving to set up anew a relationship of antagonism and distrust between the operator and the riding public.

As was sketched out just above, Muni's status as a city agency has engendered a highly politicized bureaucratic environment with a long history of controversy about one or another aspect of the way the system is run. The operators told me that they feel the burden of this critique most intensely – they feel that they become the whipping boys in the press reports and in the public's mind for the failures of the agency, but receive no praise when the agency is doing well. For example, a new General Manager, Michael Burns, the 12th in 30 years, had just come on board in the beginning of the year 2000, the year I began my research. His arrival was a consequence of a major service failure, known as “the Muni Meltdown” – the complete failure of a newly installed computer system of the flagship Metro line -- that had occurred during the summer and early fall of 1998. This event transpired during the term of Emilio Cruz who, prior to his promotion to General Manager, had been chief of staff to Mayor Willie Brown, one of whose campaign promises during the 1995 election campaign had been that he would “fix Muni” in 90 days. A glowing profile of Brown in *The New Yorker* magazine published ten months after his ascent to the mayoralty contained the following paragraph:

For the time being, Brown has found that “you don't even have to be delivering if people have just the perception you're really trying—they'll stay with you.” On arriving at a downtown restaurant one morning, he was momentarily detained by the doorman, who complained about the scarcity

⁷³Riders now keep their transfers on the Metro line so that they have them as “proof of payment” in case an inspector shows up and requests such documentation.

of cabs operating in the city. Brown said later, "If I never do another thing for that doorman out there, if I can get a hundred new cab permits, he doesn't give a shit whether I *ever* fix Muni. His judgment of me is based upon my responding to his needs—and not on an *ongoing* basis but on a onetime basis (Frady 1996:216-217).

Needless to say, such an attitude did not bode well for substantive improvements in Muni. Perhaps Brown really believed the Railway's problems could be solved with no more than a change of leadership, but the fact of a long period of under-funding for maintenance, new equipment and training got buried when the meltdown occurred since it was seen as an engineering disaster created by poor human planning. Further, it was affecting the light rail vehicles, the main middle class commuter lines to and from downtown. A committee of concerned citizens with ties to the downtown business community (SPUR) appointed itself to "Rescue Muni," and gave itself the same name. Once again in Muni's history, a City Charter change was afoot, this time under the banner of Proposition E, which passed in 1999 and called for the transfer of Muni oversight from the Public Utilities Commission (PUC) where it was under the thumbs of both the mayor and the City Council to a new Municipal Transportation Agency, a more autonomous public entity (although notably, whose Board members had all previously been Commissioners on the PUC). The main tenets of Proposition E were accountability according to quantifiable performance standards along a extensive range of variables including the following:

- a) system reliability - Examples:
 - increasing the percentage of vehicles that run on time according to published schedules (no more than four minutes late or 1 minute early) measured at terminals and established intermediate points
 - percentage of missed service due to either insufficient vehicles or driver unavailability as a percentage of schedule service hours

- percentage of unscheduled absences by operator, mechanical or administrative personnel
- b) system performance - examples:
- increase number and percentage of passengers carried by 2%
 - increase fare revenue
- c) staffing performance - examples:
- no greater than 5% vacancy rate
 - no greater than 10% attrition rate for new employees
- d) customer service - examples:
- creation of a marketing plan
 - publication of a printed schedule
 - resolution of 75% of all passenger service requests (PSRs) within 30 days
 - 10% annual reduction of PSRs
 - improve driver training, technical as well as accident followup
 - 5% reduction in number of accidents
 - reduction of crime incidents on transit vehicles
- e) employee satisfaction
- reduce number of employee grievances
 - increase employee education and training
 - develop mechanisms for employee recognition
- (Municipal Transportation Agency, Board of Directors, and Francisco 2000)

Once again, we can see how pre-existing relationships influence structural realignments. From the operators' point of view, Rescue Muni was no more than a screen for business interests now seeking to privatize Muni, once more under the banner of "efficiency." The turn of the 20th century echoes at the turn of the 21st.

For a brief while, San Francisco's city coffers seemed to overflow as a result of the dotcom boom (shades of the Gold Rush) and Muni benefitted from this – ground was broken for a new rail line that had been in planning the 3rd Street Rail line. This new line is being constructed through the long-neglected black neighborhoods of Bayview and Hunter's Point on the southeast side of the city where many of the operators I came to

know grew up. But once again, the themes of real estate speculation and “money to be made” cause distrust and dominate the discussion. As San Francisco real estate prices have sky-rocketed, this area, with its beautiful bay views, has become a prime target for gentrification and real estate speculation. The current residents fear that they will only experience the inconvenience of the mess made by the construction, and then get pushed out of the neighborhood by higher real estate rental and purchase prices once the line is complete (Hua 2003). The declining numbers of blacks in these neighborhoods lend credence to these fears. Their concerns are echoed in the words of urban sociologists Logan and Molotch who write:

Transportation officials, whether of public or private organizations, have a special interest in growth: they tend to favor growth along their specific transit routes. But transportation doesn't just serve growth, it creates it. From the beginning, the laying out of mass transit lines was a method of stimulating development; indeed, the land speculators and the executives of the transportation firms were often the same people. In part because of the salience of land development, “public service was largely incidental to the operations of the street railways (1987:74).

Once again, the themes repeat themselves.

My collection of close to three hundred newspaper articles about Muni from the period 2000-2002 are mostly reports of the system's failures, usually with the operator being portrayed as the central villain figure in the narrative. Reports about operators being nice, or service effective were limited to columnists' accounts, usually under the frame of “a miracle occurred on the outbound X line, today.” More recently, from about the spring of 2002, the newspaper reports have been surprisingly quiescent, limited to news about new service lines, improvements in service and the occasional bus accident.

The late summer and fall of 2004 saw a spate of reports on the union contract negotiations and Muni budget shortfalls, but with little of the vehemence of the earlier reports.

Muni: Current Description and Organizational Structure

San Francisco is one of the few cities in the U.S. where the ridership on the transit **lines** comprises a broad spectrum of social classes, because Muni really is the easiest way **to** get around the City, especially if you are riding the lines feeding the downtown **employers** and shopping district, where finding available parking is dicey, and traffic **almost** any time of the day unbearably congested. The Union Square Garage, for **example**, is \$1.00 per ½ hour for the first two hours of parking, and then increases to **\$2.00** per ½ hour. Calculated by number of riders, Muni is the 7th largest transit agency in **the** United States. According to information available from the Muni website, there were **over** seven hundred thousand people riding on a piece of Muni transit equipment on a **typical** weekday (the resident population is approximately 750,000) (San Francisco **Municipal Railway 2004**). There are approximately 2000 transit operators (approximately **half** of the total Muni workforce) who drive, conduct, operate the various vehicles that **make** up the Muni fleet of carriers. And a diverse fleet it is, including 454 diesel buses, 342 trolley- buses, 136 metro street cars (also known as light rail vehicles), 40 cable cars and 17 historic streetcars, also known as trolleys) that run along Market Street on the F line. Muni runs twenty four hours a day and boasts of its mission to have a transit stop no more than two blocks away from any residential location in the city (San Francisco **Municipal Railway 1999a**).

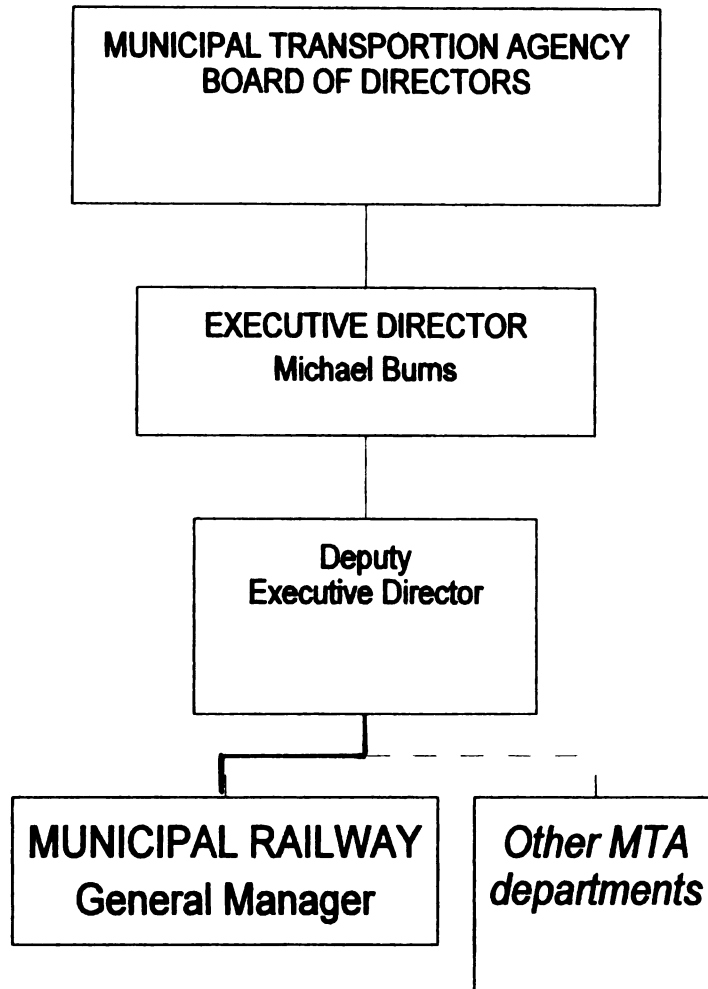
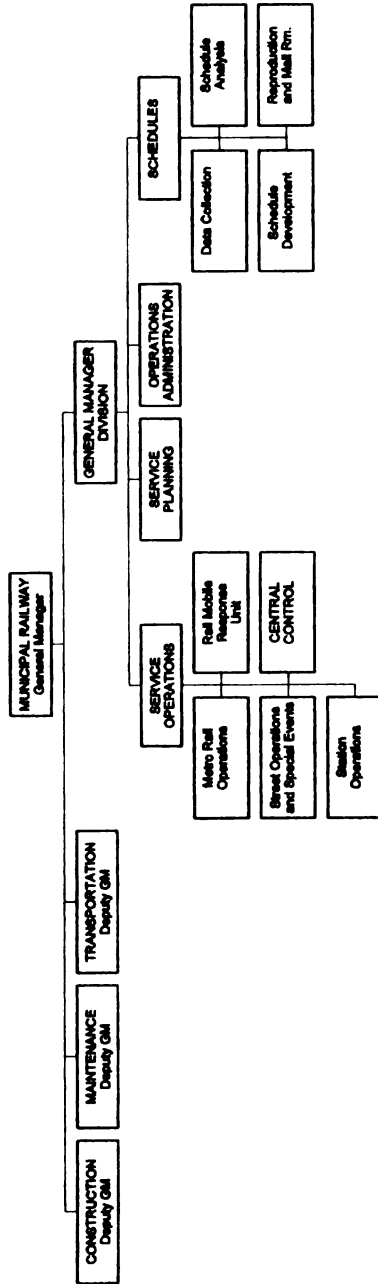


Figure 7
Top of the Municipal Transportation Agency Organizational Chart

Figure 8
Railway Division Organizational Chart



To run this complex system Muni depends on an intricate bureaucratic structure. (See Figures 7, 8, and 9.) The overriding entity is the Municipal Transportation Agency (MTA) which reports to a Board of Directors appointed by the Mayor (Figure 7). Burns, who came to San Francisco as General Manager of Muni in late 1999, is now the Executive Director of the MTA, which controls both the Municipal Railway Department and the Department of Parking and Traffic. The current General Manager of the Municipal Railway is Fred Stephens (Figure 8). Within the Railway there are four departments: General Manager (GM) Division, Transportation, Maintenance and Construction. The operating divisions are housed in Transportation. There are seven operating divisions for Muni: Green, Flynn, Potrero, Presidio, Woods, Cable and Kirkland. Of these, Potrero and Presidio use the electric trolley-bus equipment, Flynn, Woods, and Kirkland use the diesel buses. Cable, the smallest division, maintains the three cable car lines that continue to symbolize Muni, and Green, or Metro runs the light rail lines as well as the historic street car line known as the “F” line – another popular anachronism, beloved by tourists and San Francisco commuters alike. The Metro line is seen as the future of Muni and includes the 3rd Street Rail Line discussed just above.

At the head of each of these operating divisions is the superintendent, to whom the dispatchers, transit operators report. The organization of divisions by type of equipment aids in maintenance, but the maintenance department does not report to the superintendent; it is a separate department reporting up the line through its own chief to the General Manager. Similarly, Central Control, the “brain and nervous system” of the real

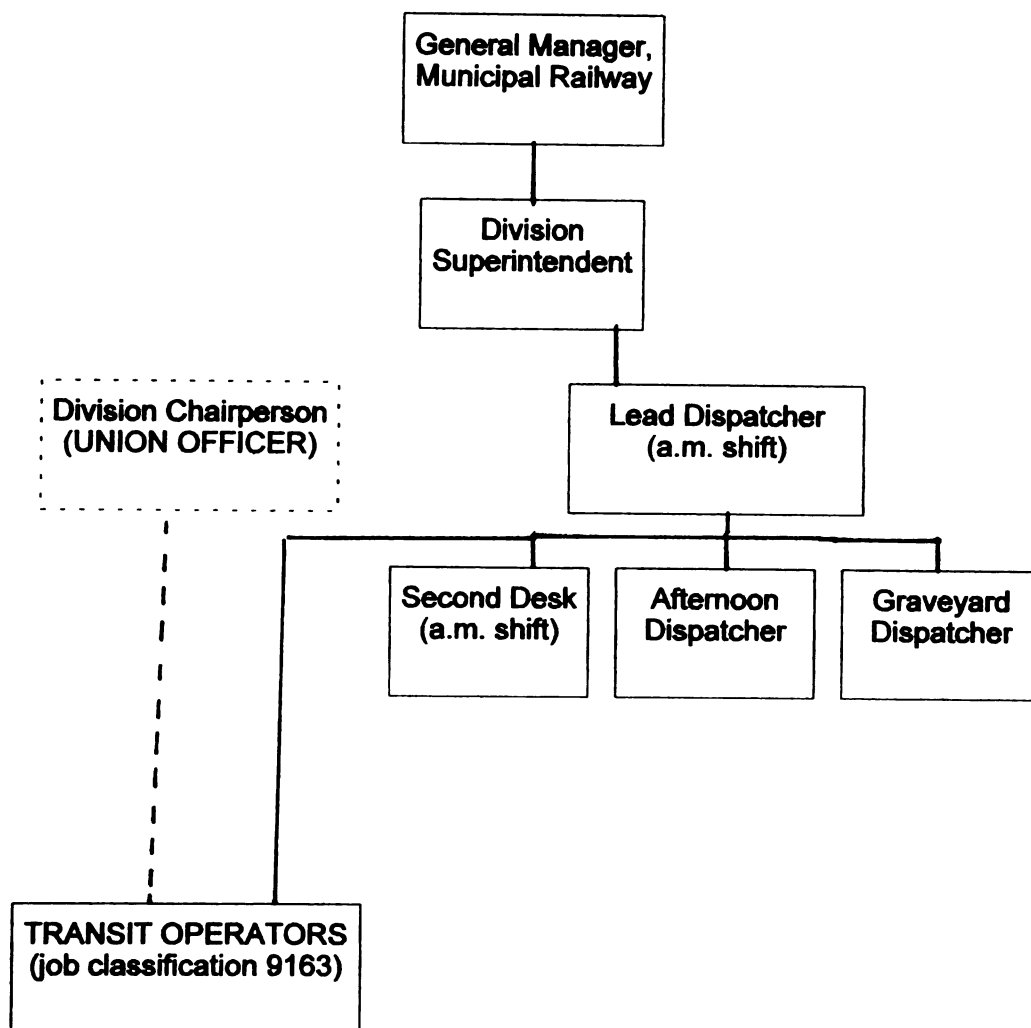


Figure 10
Organizational Chart - Division Level

time Muni operations, reports through a separate chain of command located in Service Operations to the General Manager. Street supervisors also are housed in Service Operations and have their own separate chain of command.

From the transit operator's point of view, the power players at the division level are the Superintendent, the Lead Dispatcher and the Division Chairperson (the union representative). Transit operators report for duty to the Dispatcher's Office; dispatchers have supervisory authority over this job and can write up operators though they cannot discipline them. Disciplinary authority resides with the Superintendent, and can range from a notation in the personnel file to suspension for as much as thirty days. The union rep's role in this power dynamic is as advocated for the operators in matters at the division level and if necessary when operators are notified that they must report to disciplinary hearings away from the division. The union rep is on approximately the same authority level as the dispatcher, but represent a line of power outside the Muni bureaucratic framework.

This then is the present day structural environment of the transit operators who participated in my study, an organization deeply scored by its history even in the present – the title “superintendent” giving hints to the top down management structure and military origins of the management design. Frequent departmental and personnel shuffles contribute to the operator's sense of an unresponsive and faceless management at the top. Their day-to-day encounters are with supervisors like the street supervisors, Central Control staff, and the dispatcher's office who don't seem to understand their (the operators's) jobs or only understand them to the extent that everything is sacrificed for the

agency goal of keeping the line running. Chapter Four, just ahead, examines the impact of the history of Muni and its present day priorities on the work lives of operators, an impact succinctly described in the chapter's title, "My Job Makes Me Sick."

CHAPTER FOUR

“MY JOB MAKES ME SICK!”: DISCOURSES OF DISTRESS

What is crucially important for the medical anthropologist is to demonstrate the way in which polysemic constructs such as *nevra*, *solidao*, *hara*, stress, and menopause ... can be made use of in order to facilitate the bringing to consciousness of links between the political and social orders and physical distress. (Lock and Scheper-Hughes 1996:68)

The Social in the Body/The Body in the Social

Here are two moments on the bus. Don't choose between them. They are both true. I was an eyewitness.

Vignette 1: On a hot mid-summer Saturday afternoon an elderly asian lady sitting next to me on the transverse seats joins into the conversation I am having with the transit operator driving the 38-Geary bus we are riding. She tells a story about something that happened to her “forty years ago when I was young, in my country.” She exits the bus at the next stop, sighing deeply as she departs. The operator remarks on the sigh and all the things he says it tells him about her. “Learning to hear, really hearing people, this is something I've learned to do driving the bus. This is what makes it interesting – paying attention to all the variety and uniqueness of people everyday.”

Vignette 2: I'm sitting towards the back and I'm the only passenger on the 6-Parnassus, a trolley-bus headed up Market Street from the Transbay Terminal. We will travel through Haight-Ashbury on the way to the U.C. Medical Center campus on the top of Parnassus. It's a weekday morning, post rush hour. We've just turned off Market onto Page, at the beginning of Lower Haight, and there, waiting at the sheltered bus stop, is an

androgynous street kid with spiked blonde hair, heavily studded black clothes and the requisite black motorcycle boots. S/he climbs on, pays the fare and bursts: “Bullshit! 10-fuckin’-30!” Without comment, the driver maintains his gaze steadily frontward. As the brakes are released, there is a hiss of air, nothing more besides the quiet hum of the bus as it climbs up the hill.

You are left with two impressions of the kind of work that transit operators do. These vignettes are neither highest of highs nor the lowest of lows in the oscillating rhythms of the transit operator’s work day; they are well within the normal range of social intercourse that an operator experiences on his or her daily rounds. I want you to see and feel these encounters, to attend to them and notice the interaction between driver and rider with your whole awareness. Not just the sleepy way you board the bus or get into your own car to go to work, routine so ground in, you barely notice your surroundings. I want you alert, woken up with your heart-mind and your body-mind engaged here – imagining – nay – hearing that sigh and seeing that spiked hair child slouch down the bus’s aisle, muttering to him/herself. I want you to take it all in, and then imagine a thousand more brushes with every variety of person every single work day – brushes so brief, so fleeting, they are forgotten “as soon as that passenger crosses that yellow line.”⁷⁴ But are they really?

We are social creatures, you and I. We are mind-bodies built for interaction, and every one shapes us, molds us, becomes a part of who we are. Our bodies express our

⁷⁴The “yellow line” is located at front of the bus, parallel to the bus’s width, extending from the back boundary of the driver’s compartment, and marking the area forward of which passengers are not permitted to stand once they’ve paid their fares.

feelings – standing proud, looking dejected, perking up – you know these postures, you can see them in your mind’s eye and you recognized them long before you had a name to put to them. We are burnished and scarred by the rubbing up against each other that we do each and every day. When the social scientists ponder how the social “gets into the body,” this is at least one way.

This chapter addresses the discourses of stress and distress that I came to recognize over the course of my research. I analyze what operators were talking about when they used the word ‘stress’ and trace the connections between their notions and discourses in the biomedical and human sciences. I found that the meanings of stress for participants in my research were enmeshed in the meaning of their work, so I begin with a discussion of what work signifies for the transit operators I came to know, interpreting their significations in the general context of the meaning of work for Americans. That leads into a review and critique of the “stress discourse” (Newton, Handy, and Fineman 1995; Young 1980). What I mean by this is the borrowing back and forth between the scientific literature and popular culture of the language of “stress,” with reports by the news media on biomedical research often serving as the conduit. In the back and forth there is created a “spiral of legitimation” that occurs in a fashion familiarly described by Michel Foucault (Foucault 1990 [1978]:92-104; Foucault 1977. Stress becomes the most amorphous and chameleon-like of terms in the equation, serving as both cause and effect (Chen 2002). How then to substantiate this most insubstantial of ideas? Are we left with nothing “material” to hold on to? Is stress only a figment of our modern imaginations? No more than a discursive heuristic harking back to Norbert Elias and his case for the

historically situatedness of emotions(1994 [1939, 1968])? The evidence of the transit operators' bodies tells us that there is more than "talk" going on here – we are reminded of Cohen's point about the materialization of ideas and experiences in people's flesh and blood (Cohen 1999).

In order to probe this more deeply, I introduce the varieties of ways operators talk about how their jobs "make them sick." These stories serve as a counter-narrative to the others sorts of meanings that operators give to their work lives, in some cases mainly by letting their bodies do the talking. In the final section of this chapter I braid the strands of my argument together combining the theoretical insights of Bourdieu (Bourdieu 1984; 1990) and Hochschild (1983) and data from the domains of psychology and occupational health to clarify the question of the "materiality" of "stress."

This concluding section sets up the transition to Chapter Five, which addresses the kinds of connections the operators make between the conditions of their work and those of their bodies, and which reports on the practices of hypertension management used by my research participants.

What Work Means for Transit Operators in a U.S. Setting

The history of Muni provided in Chapter Three gave a glimpse of how operators have often been portrayed by the powerful forces in the City. For example, the comments by SPUR describing transit operators as "not always neat, courteous and competent"

(Perles 1981:203) translates to stereotyping them as messy, rude and incompetent.⁷⁵ This characterization looms large because operators' feelings about their work are at least in part determined by the respect which is accorded to their occupation, and the reality is, their occupation is not held in high esteem in our country (Reiss and with Otis Dudley Duncan 1977 [1961]).

Working is an important part of American identity (Becker 1997; Campbell 1988; Lamont 2000; Newman 1999 [1988]; Schor 1991). This broad generalization deserves more nuance than is possible to provide here, as it should be parsed by class, gender, and race/ethnicity, as well regional and temporal contexts (Lemelle 2002). Nonetheless, there are two points that seem to hold across many social categories and points in time and which appear to reflect an underlying cultural ideology (Becker, 1997:16-18).

First is the notion of **working hard** deriving out of the Protestant ethic (Weber 1988). Juliet Schor cites a 1648 law in the Massachusetts colony making idleness a crime (Schor 1991:70). Additional support for this observation includes the fact that as a nation we work more and have less mandated vacation time than comparable countries in Europe (Romano 1994).

The other part of the work identity that is given a distinct twist in America is the high value placed on occupational status. How societies decide on social status is a topic for another time, but the reality is that status, a subjective marker of value, carries its own

⁷⁵I will refrain from speculating about why bus drivers are so often seen this way though I wonder about the influence of *The Honeymooners*, a situation comedy popular in the 1950s, in which Jackie Gleason played a fat, sloppy, and choleric New York City bus driver who came home to his saintly wife threatening to send her, "To the moon, Alice! To the moon!!" Is this image imprinted on the memories of Americans of a certain age?

force in social fields. This is one of the observations Bourdieu makes in *Distinction* (1984). Occupational status is a form of social or cultural capital that actors parlay. Kathleen Newman (1999[1988]:18-19) points out that other societies have chosen different values than occupation to determine social status – familial ties to revered lineages, for example – but here, **what** you do matters, which is why assistant professors in the humanities, making forty-five thousand dollars a year if they are lucky, are much higher on the American status hierarchy than transit operators making forty-eight thousand dollars in base full-time pay.

Newman, citing Robert Bellah, notes that our meritocratic myth represents the “evolution of a [Calvinist] world view into a secular philosophy (Newman 1999[1988]:75-76 and footnote 64, p. 274). She also describes how the Calvinist ideology has merged with Darwinist ideas of the survival of the fittest in the form of present-day social Darwinist notions suggesting that those who get to the top of the ladder in the workplace do so because they are more “fit,” they’ve worked the hardest, and this is their just dessert. My operators sometimes espoused a version of this philosophy, too, when comparing themselves to the “bad apples” found among their fellow operators.

Michele Lamont’s study of white and black working class men in the United States describes how these men view themselves vis-a-vis “those above” (Lamont 2000) Their stance is more nuanced, because it also includes in the equation of self worth, a moral evaluation of self which allows her respondents to distinguish themselves favorably from this higher status group. I think my operators used the same calculus, especially in their comparisons of themselves to upper management. Lamont’s study highlights the common

themes of money as the most important thing described in working class men's classificatory universe, even as they define an "upper half" (with more money) to which they do not belong.

Americans have intense curiosity about what people do and make and what they're worth. For example, *Parade Magazine* conducts and publishes an annual salary survey (Parade 2002). The article contains one hundred sixty-four one inch square color head shots of people with their name, age, occupation, geographic location, and salary in typeface below. You see a roughly even distribution of men and women, mainly black and white faces with very few who look asian or latino. The jobs and salaries included law clerk (\$54,000), carriage tour guide (\$17,000), florist (\$70,000), college food services worker (\$37,000), university president (\$335,000), caterer (\$63,000), plastic surgeon (\$125,000), lumberyard foreman (\$23,000), pro football player (\$920,000), sports announcer (\$27,000), dentist (\$212,000), admin ass't. (\$23,000), CEO, NIKE (\$3,500,000), Secretary of Defense (\$167,000), tattoo artist (\$30,000), copy editor (\$56,000), and kayak instructor (\$21,000).

In the same issue Andrew Tobias writes about upward spiral of CEO salaries as reported in *Fortune* (Parade 2002; Tobias 2002). Acknowledging the essential unfairness of it all he quotes from the article, "the answers lie in the perverse interaction of CEOs, boards and consultants" but reminds the reader how lucky she is to be in the U.S. as opposed to a "plumber in Peru." After all, he concludes, "for most of us, it could be a lot worse. And in America there's at least a fighting chance that, if you work at it, you – or your kids anyway – can close the gap." This is a classic statement of the modern

American dream:. Money is the great equalizer. This may explain the popular culture and social science propensity to define “the middle class” so broadly: having the capacity to make money means having the capacity to consume just as much as your neighbor and erases “ascribed” notions of your class status and focuses on achieved ones.

Operators’ meanings. I did not directly ask my research participants what their work meant to them, but I did ask them what they liked and disliked about their jobs. In light of the above, it should not be surprising that “the money” was the most frequent answer to the question: “What do you like about your job?” occurring as an answer almost twice as often as the next highest response, “serving people.” For most Muni transit operators, working for the Railway has been their best opportunity to advance materially. In 2001, operators’ base pay was set at \$22.44 an hour⁷⁶; if they worked only forty hours per week, they would earn almost forty eight thousand dollars annually.⁷⁷ Many operators earned much more than that through evening and night shift differential pay, and overtime pay, especially by working RDOs.⁷⁸

The vast majority of my research participants had some college education(nineteen out of twenty, with two having bachelor’s degrees). Nonetheless they told me that this

⁷⁶Transit operator pay is set in the union contract as required to be the second highest in the country (behind Boston). This reflects the high cost of living in these metropolitan areas

⁷⁷Given the cost of living in the Bay Area, this wage is not particularly high. For example, the median home price in the Bay Area was \$553,000 in October 2004 (San Francisco Chronicle 2004:C-1).

⁷⁸**RDO** is the commonly used acronym for **regular days off**. Many operators make work at least one of their RDOs a week, guaranteeing themselves time and one-half overtime.

job represented a big improvement for them in regard to long-term economic security. In San Francisco, working for Muni means you have a civil service job backed by a powerful union. Though these two factors do not guarantee absolute job security, they greatly decrease the chance of lay-offs. Again, not surprisingly, the third most frequent response to the question of job likes was “security.” Interestingly, though, this feeling of security was not universal. Some operators expressed their concerns with the pettiness they experienced at the hands of supervisors and middle managers and their fear that being “written up” for minor infractions would cause them to lose their jobs. This also came through in the high number of answers to the question “What are your top three dislikes about the job?” which could be combined into a category called “workplace politics.”⁷⁹

Many operators had had other career aspirations at one point or another in their lives and sometimes asked themselves “what the heck am I doing driving the bus?” For example, one of my research participants wanted to be a teacher but with family commitments had not been able to devote the time necessary to get his early childhood education certification and so chose the pragmatic course of getting a job at Muni. Many black operators told me they had been interested in law enforcement but had been shut out of the market by racialized “old boy” hiring practices. The operator whose anthropology master’s thesis I cited in Chapter Two coped with the disconnect between his aspirations and his employment by first using his employment as an object of study, to objectify it and second, by bowing to the reality that he had a family to raise and that the income he could make working for Muni was more secure than the income he could make if he were to

⁷⁹Actual codes were bureaucracy/red tape; politics and sense of insecurity.

have pursued his academic ventures, and finally, to pursue a rich life outside of the organization, to recognize his job as instrumental, nothing more (Lamont 2000)

One woman talked about her desire to please her passengers, noting that “if you give people a smile, you make everybody’s day better.” But even those who spoke genuinely about their pleasure in the service aspects of their job (the second most common “like”) expressed mixed feelings. Consider for a moment this excerpt from an interview I conducted with Brian, a 59 year old white transit operator with twenty-nine years of experience working for the San Francisco Municipal Railway:

I would say the socializing aspect of the job I enjoyed a lot. You know? Even driving. I like driving. You know what I mean? Mixing with the public and all that stuff. So it’s a more directly, it’s less alienating to drive a bus than it is to work in an office or on an assembly line. Because you can see directly your actions can affect somebody’s life: somebody running for the bus and they get on and go, “Man, if I had missed this one and was late one more time I would have been fired!” ... I’ll take that literally. I helped to save a job and stuff like that. So it’s sort of like you get a little reward out of it sometimes. And the more you do that, the more reward you get...

Moments later I asked how these experiences differed from his current workdays on the light rail vehicles (LRVs), in which the transit operators sit in a closed compartment, communicating with riders through a twelve inch gap in a small window located at a boarding passenger’s waist level next to the fare machine. He replied:

I couldn’t drive a bus anymore. ... I made sure that I would still maintain Saturday and Sunday, and a day run over there before I went [to the LRV division]. I had wanted to go out there about five years before [his twentieth year at Muni]. Because the pressure of driving that bus, running up and down the 38 line and all those different places—I just couldn’t take it anymore. I could tell. I’d get off the bus in the evening and I felt like a tuning fork. Mmmmm. And the blood pressure problem. I knew I had to get rid of that. Plus, I had problems with my back. I’ve been off two times now ... Messed up my back. So I said—I got to get out. I went to a [rehabilitation] program ... and they said, “How much time before you

retire?” And I said, “About another ten years.” They told me, “If you keep doing that, you’re going to retire—you’re going to be a cripple.”⁸⁰

Municipal bus driving is both a blue collar job -- the main task of the employee is to competently operate a piece of heavy machinery – and a service position. The customers, i.e., the riders, expect not only to get transported to their destinations safely and on time, but also to be treated in a friendly manner when they board the bus, and to have their questions answered correctly, no matter how obscure the location they are seeking (Buhbe and Schlag 2003).

But it is exactly this combination that causes problems for transit operators. They are caught between a rock and a hard place. Managers require that they give their primary allegiance to the schedule at the same time that they are asked to provide service with a smile. This double bind comes through in their answers to questions about what they disliked about their jobs and in responses to questions and open ended conversations in a multitude of other contexts. The number one answer to the formal question, “what do you dislike about your job?” was “abuse from the public.” When this response is added to the responses coded “fear of assault/violence,” more than half of my respondents expressed negative feelings about the very people whom they had to carry from place to place everyday.

In the opening to this chapter I poetically invoked brushes with the public that were forgotten as soon as they crossed the yellow line, but the reality is that most

⁸⁰Medical retirement is an option for transit operators, though less desirable because it means retiring at a younger age, with less years of service and thus having a smaller pension.

operators shared with me is that it takes years to harden one's self to the daily indignities they experienced. Indeed, an aphorism commonly heard around Muni is "it takes five years to become an **operator**." I wondered what this meant when I first heard it and assumed that it simply meant that it took that long to really know what you were doing, in a technical sense, on the job, that is, you don't really know the ropes of handling the heavy equipment that is the source of your daily bread, nor do you develop sufficient skills on the streets of the city – reading the people at the bus stops, understanding the rhythms of the traffic patterns, being able to smoothly integrate yourself into the flow of street life until you've been doing it for five years. It also became clear, listening to my study participants, that there was more than that. A seasoned employee explained, "After five years, I learned to focus Monday morning on what I'm gonna do Friday." He said that when he was a new driver (not yet an operator) the old-timers taught him to remember that passengers, "once they got past that yellow line, they no longer existed for me."

Many operators, both study participants and more casual acquaintances, told me how they learned to distance themselves from their emotions about their jobs. The language in my interview transcripts is stunningly clear. One operator told me, "All those crazy people on the bus are from Mars" [Drummer, lines 246-249]. By making them extraterrestrial others, he didn't have to worry so much about reacting to them: "Trying to stay calm, that's an important part of my profession." Another operator, this one a driver on the 38-Geary line, referred to her driver's compartment as a "sanity barrier."

Others specifically told me how they made a conscious choice to either ignore or control their emotions; one man said, "my whole philosophy is I don't deal with my

emotions.” There is a conscious decision to remain uninvolved, because to care about the people riding your bus is to become vulnerable. More than one of my study participants told me that this was why he or she “drove off the board.” By not having a regular route, they could justify their distanced, noncommittal stance vis-a-vis their passengers. Another operator told me that feeling sorry for people was “costly” for a bus driver.

Such statements are not always easy to reconcile with actions of caring that I witnessed on ride-alongs. For example, during a ride-along with Ann Lightfoot one dreary January morning, I witnessed a mother entrust her six year old to Ann when she got off three or four stops earlier with her two younger children in tow. Ann knew that the six year old’s stop was a day care center in the housing projects along part of her route and she conveyed a feeling of sorrowful tolerance for the circumstances of her passenger’s life that forced her to use a transit operator as a baby-sitter for a short distance.

These examples are expressions of the **feeling rules** that transit operators have created for their professional selves. As Hochschild defines them, “feeling rules differ curiously from other types of rules in that they do not apply to action but to what is often taken as a precursor to action. Therefore they tend to be latent and resistant to formal codification. Feeling rules reflect patterns of social membership” (1983:pp. 98-99). These rules go hand-in-hand with what Hochschild calls **framing rules**. She writes, “I refer to the rules according to which we ascribe definitions or meanings to situations. If ideology is an interpretive framework, then the framing rules imply the feeling rules.” Framing and feeling rules define the acquired emotional habitus of transit operators. Framing rules represent the structuring structure and feeling rules representing the structured structuring

– what one emotionally brings to a given situation that helps to guide one’s feeling for how to conduct one’s behavior in that situation.

The transit operators’ name for this stew of emotions about their job was “stress.” I recognized that their language was part of the all pervasive “discourses of stress” in late twentieth and early twenty-first century America in which I was also implicated and I eventually realized this larger discourse had to be examined and, if possible, unpacked before I could proceed (Young 1980). Therefore, let us now parse this discursive practice.

The Stress Discourse

You know an idea has become hegemonic when you see it in *The Daily Word*, a mainstream, non-denominational, spiritual publication which provides its readers with a few short paragraphs of inspirational guidance coupled with a verse from the Bible each day. On September 7, 2004, the first sentence read: “Perfectionism can create excellent results, but the cost of getting there can cause **stress!**” (Daily Word 2004).

Earlier in this chapter I offered a preliminary definition of what I am calling “the stress discourse.” I said that I was talking about the spiral of legitimation created by the popular and scientific uses of the term with news reports on biomedical and psychological research serving as a channel between these two domains. In this section I elaborate on this idea, drawing from two important sources: Allan Young’s seminal essay, “The Discourse on Stress and the Reproduction of Conventional Knowledge” (1980) and Tim Newton’s book, *Managing’ Stress: Emotion and Power at Work* (1995) which develops

and extends Young's ideas. First, I define some key terms – **discourse, ideology and hegemony.**

Definitions: Like the term stress, the word '**discourse**' has become ubiquitous in humanities and social sciences writing from the 1980s to the present. At its root, it conveys the idea of currents of conversation. Michel Foucault wrote of both **discourse and discursive practices**, and it is his work that has brought the terms to such prominence. "The word 'discourse' ... refer[s] to assemblages of knowledge which create 'truth effects', or 'how effects of truth are produced within discourses which in themselves are neither true nor false'" (Newton 1995:7, quoting Foucault 1980, page 198). "It is in discourse that power and knowledge are joined together," Foucault famously wrote (Foucault 1990 [1978]:100). Throughout his texts he emphasized the relationality of the power/knowledge axis: power produces knowledge which in turn produces power. There is not one discourse that dominates and another that is excluded. Discourse, in Foucauldian terms, comprises the whole complex of ideas being debated and discussed in a given social problematic, **plus** the activities based on that complex (i.e. discursive practices) – this is what gives it potency.

Power/knowledge inscripts itself on human bodies.⁸¹ In *Discipline and Punish*, Foucault argued this point incisively. Both the delinquent and the upstanding citizen are

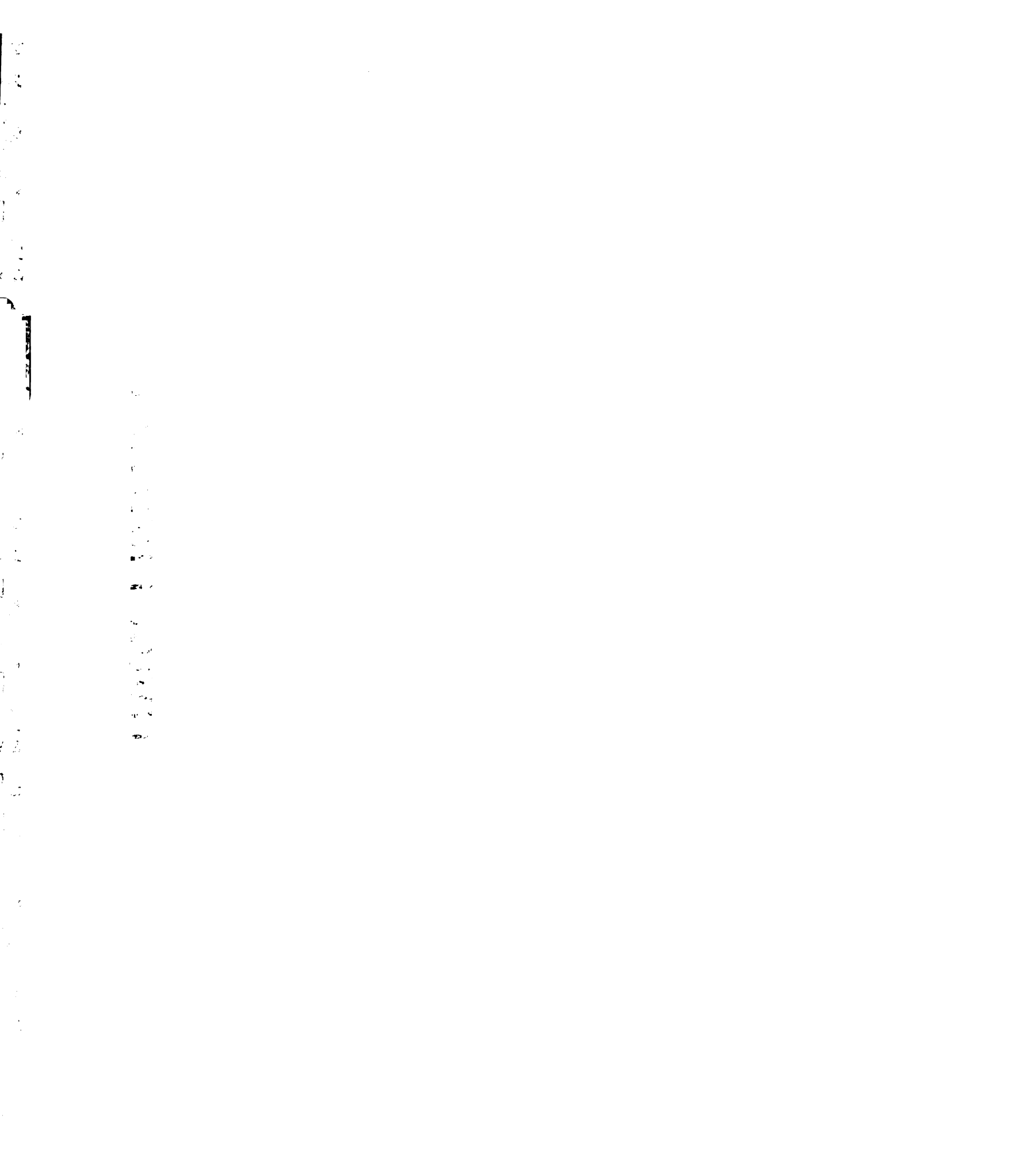
⁸¹It is interesting to note that Foucault seems to borrow from Mauss the term "technique" to refer to the "disciplinary" practices (the ways of learning how to stand, sit, eat, etc.) imposed on human bodies.

products of the disciplinary discourse, the delinquent as a creation of the carceral system⁸² and the upstanding citizen through her internalization of discursive practices. She is, in short, a “docile body.”

Prison continues, on those who are entrusted to it, a work begun elsewhere, which the whole of society pursues on each individual through innumerable mechanisms of discipline. By means of a carceral continuum, the authority that sentences infiltrates all those other authorities that supervise, transform, correct, improve. It might even be said that nothing really distinguishes them any more except the singularly ‘dangerous’ character of the delinquents, the gravity of their departures from normal behavior and the necessary solemnity of the ritual. But in its function, the power to punish is not essentially different from that of curing or educating. It receives from them, and from their lesser, smaller task, a sanction from below: but one that is no less important for that, since it is the sanction of technique and rationality” (Foucault 1977:302-303).

With reference to the term “stress discourse,” I agree with Young and Newton that it is essentially a set of the representations of the term that have created and reified a “modern, ‘stressed’ subject” without reference to its historical and ideological/political context. This is its “truth effect.” Stress has become “natural” and/or “biological,” that is, it has become a “black box” (Latour 1987) and in the process, has become “taken for granted,” or, as Young describes it, has become a kind of “tacit knowledge” (1980:136).

⁸²In *Discipline and Punish*, Foucault writes: “The delinquent is an instructional product. ... the lyricism of marginality may find inspiration in the image of the ‘outlaw’, the great social nomad, who prowls on the confines of a docile frightened order. But it is not on the fringes of society and through successive exiles that criminality is born, but by means of ever more closely placed insertions, under ever more insistent surveillance by an accumulation of disciplinary coercion. In short, the carceral archipelago assures, in the depths of the social body, the formation of delinquency on the basis of subtle illegalities, the overlapping of the latter by the former and the establishment of a specified criminality” (1991[1977]:301).



Another related way of thinking about this is through the terms **hegemony** and **ideology**. When I speculated earlier that stress was becoming “hegemonic” it was exactly because of the naturalized way you hear it used. The Comaroffs, referencing Bourdieu (1977), point out that hegemonic ideas are “things that, being axiomatic, are not normally the subject of explication or argument” (Comaroff and Comaroff 2002:28-29). In using the term this way, the user implies: “We already know what this is, don’t we? So we can agree here and move on to what it does to us.”

By contrast, **ideology** is a more consciously “articulated system of meaning, values and beliefs ... that can be abstracted as [the] ‘worldview’ of any social grouping” (Comaroff and Comaroff 2002 :28-29 , citing Raymond Williams, *Marxism and Literature*, 1977}. The difference between ideology and hegemony is that hegemony “is that part of a dominant ideology that has been naturalized and having contrived a tangible world in its image, does not appear to be ideological at all” (Comaroff and Comaroff 2002:29)

It is in this sense that I believe the terms discourse and hegemony are related. They both connote that which “goes without saying.” The difference between them is that in the Foucauldian meaning of discourse, power is dispersed so widely as to make it difficult to define a locus for a lever of resistance. In the Foucauldian universe, resistance is futile, it seems, because it is itself **also contained** within (and constituted by) the given set of discursive practices.

Hegemony, by contrast, implies a kind of infiltration of consciousness with ideology by stealth, but allows for the possibility of a growing or sudden heightening of

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awareness. This then suggests a place for challenging the ideological givens (e.g. a woman's place is in the home) and altering the worldview through personal or group agency. Though I will rely on the phrase "stress discourse" as shorthand for what I am talking about in this dissertation, I reserve room for agency in my definition. It is a truism that seeking change is often seen as flying in the face of the natural order of things, an argument most often invoked by those whose interests lie in the current regimes of power. In the case of stress, the question must be asked, what hegemonic and ideologic purposes are served by removing it from its historically situated context, or, to paraphrase Scheper-Hughes and Lock, what does having a stress discourse provide for our society, what or whose function does it serve? (Scheper-Hughes and Lock 1987). If stress is discursively established as an essential fact of modernity, then fundamentally you have to give in to it, accommodate yourself to it, adapt to it. You can't change the system, the system changes you. *I argue that the "stress discourse" has become a way to medicalize human emotions – to blunt them, to make you docile when you have a reason to be angry, and forgetful of the real reasons for your fear.*

To trace the historical origins of the stress discourse in detail here would be to duplicate work that has been substantially covered by Young (1980; 1995), Pollock (1988), and Newton (1995). I offer an abbreviated history in order to outline how this idea progressed from biomedical hypothesis to every day given, and to establish a basis for peeling away the "stress" label and replacing it with something more tangible, more concrete, more material that we can talk about as the thing that "gets into the body" and causes it harm.

A Short History of Stress. In the genealogy of the term, Walter Cannon, a physiologist, is given pride of place by no less than Hans Selye, who is seen as the present day “father” of the “stress” concept (Newton 1995). Cannon’s 1914 paper is often cited as the origin of the idea. . Newton points out that Cannon didn’t really use the term stress in this paper, and that his primary concern was with homeostasis. What Cannon did was to set up an image of an organism knocked out of physiologic balance by some external event, and then go on to propose the physiologic mechanisms by which it returned to balance. This is the origin of the famous “fight or flight” metaphor. The image is that of a “primitive man” who comes upon a tiger (or who is come upon by a tiger) and whose body releases a cascade of hormones – adrenaline (epinephrine) and norepinephrine – that allow him to respond appropriately to the immediate physical danger that the tiger represents. But in some senses, this is a “just-so” story, because it makes assumptions about the lack of complexity in the “caveman’s” social environment (and interestingly, it is always a man in this model) (Haraway 1991; Newton, Handy, and Fineman 1995:22).

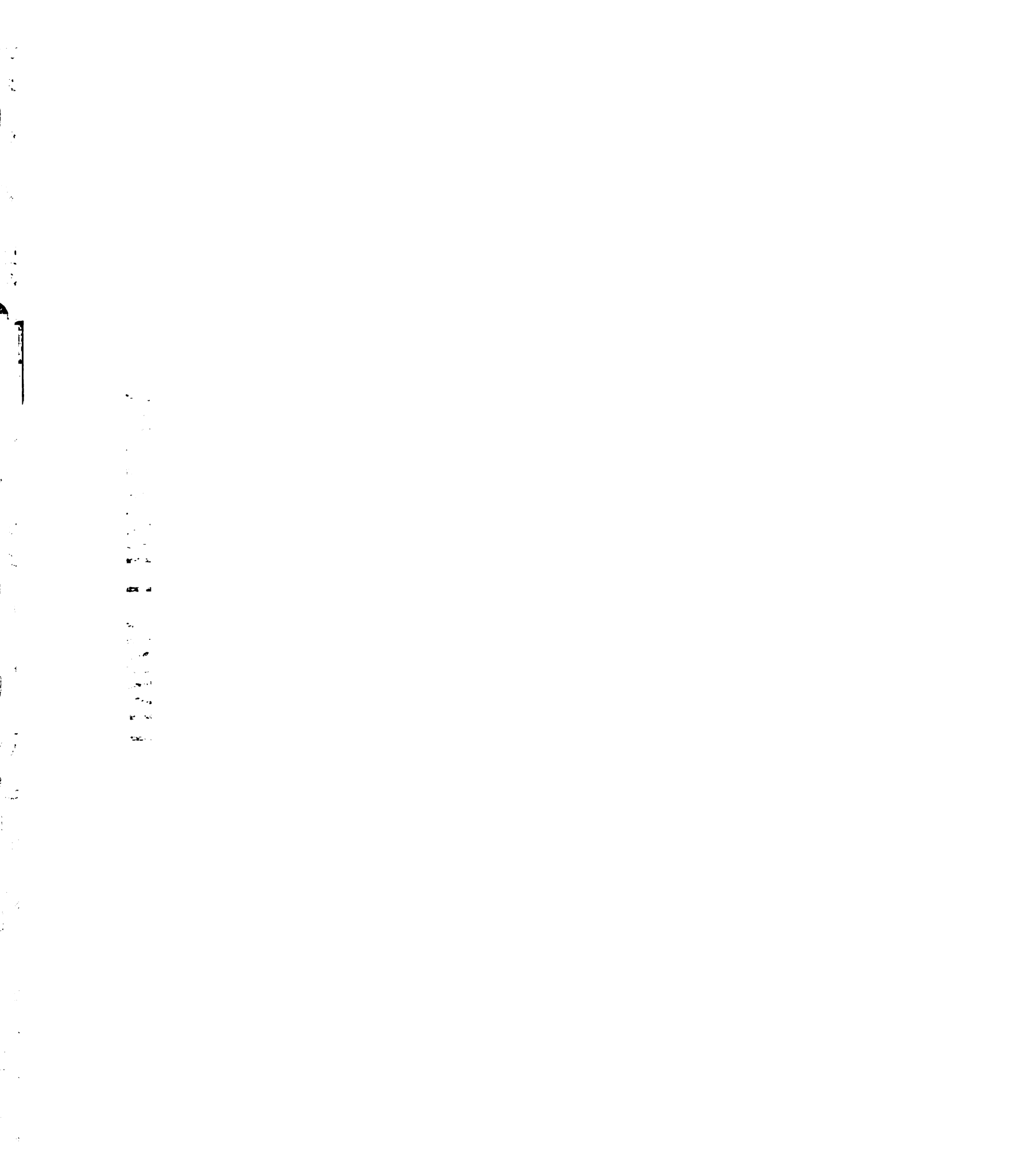
Newton points out that Cannon’s real interest was in human instincts and that he had a social Darwinist hypothesis about the importance of “discharging” instinctive emotions in order to keep the “race” from “degenerating.” (Newton, Handy, and Fineman 1995:21). Thus, in Cannon’s model, the reason why the caveman did not suffer the consequences of the release of hormones precipitated by the appearance of the tiger is because his instincts were allowed full expression – he either ran away fast or stayed to fight the tiger. In the modern context, Cannon argued, such choices were more constrained.

Thus from the start, an evolutionary and biological basis for the concept emerges; it was from this foundation that Selye built his “general adaptation theory” in which stress played a central role. What the general adaptation theory proposed is a “common ‘non-specific’ physiological response to ‘noxious agents’” which are not particularly well defined (Newton 1995:24-25). Newton argues that Selye took this biologically based idea and then overlaid psychosocial situations on it, and it is from this rhetorical strategy that the modern idea of psychological or psychosocial stress is born (Newton, Handy, and Fineman 1995:23-27). Selye’s work started before World War II, but it really took off after World War II when his book, *The Stress of Life*, was published (1956).

Even as the idea of stress as a factor in human disease processes was emerging in the 1950s, it was being rebutted. For example, Raffle published an article in 1959, criticizing Selye and specifically referencing the indeterminacy of his definitions. He re-analyzed Morris’s epidemiologic studies of the London Transport drivers and conductors and concluded the evidence that stress was a significant factor in the rates of coronary heart disease and other illnesses of the London transport employees was slim.⁴³ He wrote:

If stress exists at all as a factor, it is a minor one. It is clinical experience that some external psychological stimuli disturb the organism to the point of mental or physical illness. It is a clinical impression that occupational stress can do the same. There would seem to be two reasons why the epidemiological evidence does not support the clinical impressions. The first is that, as clinicians, we generally see only those patients who have

⁴³In 1953, J. N. Morris published groundbreaking studies on London Transport workers in *The Lancet*. He found that rates of cardiovascular disease were significantly higher for drivers (who were more sedentary than the conductors who had to move about the double-decker buses collecting fares). His findings inspired a series of famous epidemiologic studies in the U.S. (Framingham Heart Study, Alameda County Study, MR FIT).



broken down under stress – whether occupational social or personal. Until stress can be measured directly, and not by inference from its effects, it will not be known whether the clinical impressions are correct or a fashion...

The second, and more likely, reason for the paucity of epidemiological evidence of stress as a factor in disease is the effect of selection on the composition of occupational groups. ... If, having entered the occupation, a man finds it stressful then he is more likely to leave it than a man who does not..... In occupations which need successive promotions, the additional effect of the employer's selection has to be taken into account. The employer generally promotes only the able man and is unlikely to promote the man who reacts unfavourably to pressure or work. The men at the top, are, therefore, doubly selected. Only those who know that they can, and have shown that they can, withstand stress reach the heights. If this is true – and our politicians, top Civil Servant and captains of industry have yet to be shown to have an unfavourable sickness record – then perhaps we should discourage the top executive from talking about the stress of his job and encourage him to welcome the pressure of this work as an index of his proven ability and toughness. (Raffle 1959:843).

Raffle's closing argument was worth repeating at length here because of its eloquent summation of two arguments which still have great currency in today's neoliberal intellectual climate, almost fifty years later. First, he that argues that since clinicians are only seeing the "results" of a supposed environmental impact (e.g, the numerator), it is difficult to know what the rate of problem really is, since they have not defined a "denominator," (the size of the underlying population).. His second argument contains a social Darwinist twist: it is the worker-fitness argument (check proper name) that basically says that workers mainly "select" or are "selected for" work environments for which they are fit (physically, psychologically, etc.) with few exceptions, and therefore, their health problems cannot be blamed on their occupation, but on some other aspect of their individual lives. Of particular note is his concluding sentence, bound to be an ego-booster for those at the top of the ladder – they got there because they were "doubly fit." With a

change in language, this argument could easily be have been written today. It is also interesting to hear the echoes of Kathleen Newman's point about the meritocratic myth as secular philosophy resounding in these words (1999 [1988]).

Indeed, as Newton pointed out, the dominant school in the work stress literature relies on a variant of this thinking. This is the school that emerged in the 1960s that focused on "role stress" or "personal-environment fitness" as the primary elements in psychosocial and occupational stress research (Kahn 1981; Katz and Kahn 1978). In this there is the now familiar ahistorical and biological (human nature) set of assumptions in both the framing of the questions and subsequent analysis.

Even when the researcher can be understood as sympathetic to the "social determinants of health" school as, for example in the case of Bruce McEwen, a neuroendocrinologist whose work has updated the biological analysis of Cannon and Selye, and who invented the term "allostatic load," this ahistorical assumption remains unchallenged (1998). Now the emphasis is on **change** – McEwen defines allostasis as "the ability to achieve stability though change." **Allostatic load** "is the longterm physiologic response to stress," e.g., "wear and tear that results from chronic overactivity or underactivity of allostatic systems" (McEwen 1998:171). McEwen defines the allostatic systems of human physiology as the autonomic nervous system, the hypothalamic-pituitary-adrenal (HPA) axis, and the cardiovascular, metabolic, and immune systems (1998:171). This review article is a synthesis of research from biology, psychology, epidemiology and even biological anthropology (e.g. Sapolsky 1992) but his definition of stress is still fundamentally vague and imprecise, leaving open interpretations



that use “stress” as cause and stress as ‘effect.” McEwen’s marshaling of evidence is further evidence of the discursive practices of researchers in this area. His writing has produced a “truth effect,” leaving fundamentals unquestioned and jumping ahead to implications and solutions. This passage near the end of the article is telling:

Allostatic load is also important in illuminating the relation between disease and social instability, job loss, dangerous living environments, and other conditions that are chronically stressful. Medical illness itself is a source of stress, producing anxiety about prognosis, treatment disability and interference with social roles and relationships.

Physicians and other health care providers can help patients reduce allostatic load by helping them learn coping skills, recognize their own limitations, and relax. Patients should also be reminded of the interactions of a high-fat diet and stress in atherosclerosis, the role of smoking in cardiovascular disease and cancer, and the beneficial effects of exercise. But patients themselves must change their behavior patterns appropriately,

Beyond those obvious steps, other types of interventions must be considered. Two important causes of allostatic load appear to be isolation and lack of control in the work environment. Interventions that increase social support and enhance coping prolong the life spans of patients with breast cancer, lymphomas, and malignant melanoma. Interventions designed to increase a worker’s control over his or her job, such as the reorganization of auto production at Volvo, have also improved health and attitudes toward work [1998:176-177].

Even as McEwen discusses the socio-ecological factors that might play a role in human health, he highlights first the need for change in personal behavior, and physicians’ roles in supporting these changes. In this, he unwittingly illustrates Young’s point about the latent ideologic content in his seemingly value-free science. The last paragraph cites research that focuses more directly on the social and especially on research highlighting the organization of work and job control, a branch of occupational health research that I believe holds some promise for modeling how the social gets into the body. Nonetheless,

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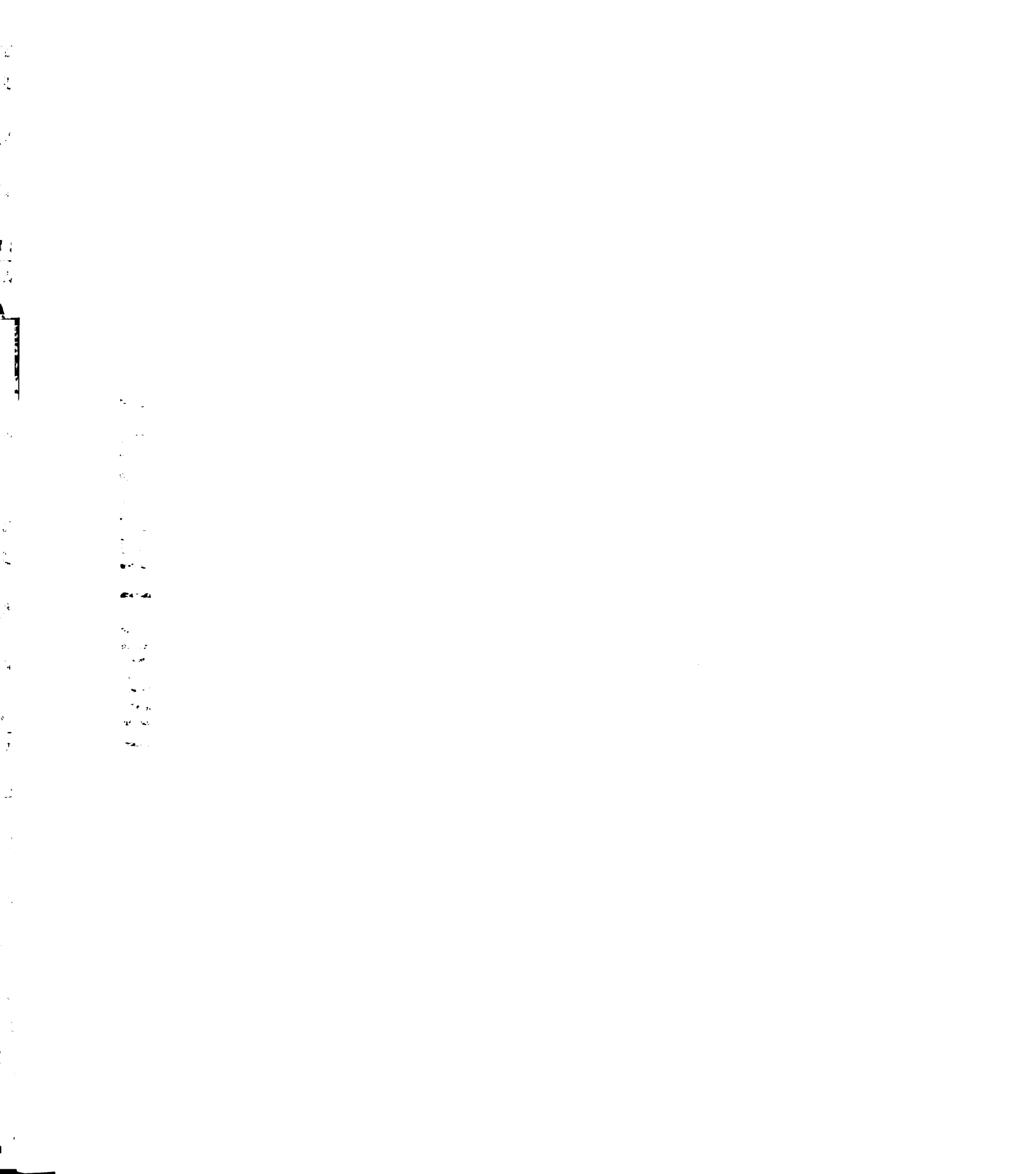
historicized context and the relation of these questions to the political economic environment in which they are asked are completely missing.

Let me be clear. I am not arguing that stress is not real, or that there is no psychosocial basis for it. What I am arguing is that the term itself has become almost impossible to pin down, because it is deployed at least three ways. In a fashion analogous to the distinction Lawrence Cohen draws between senility, clinical dementia and Alzheimer's Disease, stress is used to characterize 1) a process "rooted in the material changes of physiology **and** political economy **and** in a diverse set of social practices;" 2) a clinical condition; and 3) a form of pathophysiology (Cohen 1999:xv, my emphasis). The difference in the present case is that there is only term to describe these very different states, making for total confusion.

I believe that there is a way to begin to clarify this and that the way can be found via the insights of Hochschild and Bourdieu about the social basis of human emotion combined with a ground-breaking reanalysis of the experimental psychological literature on stress (Dickerson and Kemeny 2004) and the branch of occupational health research that focuses more intently on the organization of work than on the psychology of individual workers (Karasek and Theorell 1990). But before I present that part of my argument, I must supply the ethnographic evidence that supports this claim.

From Stress Discourses to Stressed People

Though Newton and (especially) Young offer powerful explication and critique of the "stress discourse," neither really addressed stress as an "idiom of distress." That is,



what were the transit operators actually talking about when they showed me what was “stressing them out?” In previous sections of this manuscript I have provided illustrations both lengthy (Chapter 2) and abbreviated (the vignettes at the beginning of this chapter), as hints of the moment that is now here – the summative analysis of what operators meant when they talked about and/or pointed out “stress” in their lives.

The essential features of the circumstances that operators showed or described to me as ‘stressful’ were events that made them angry or events that made them frightened, and in either case also threatened their sense of personal security. Consider this passage from my fieldnotes taken during a ride-along with Tanya, a black transit operator with fifteen years of experience working for Muni, who commuted to her job in San Francisco from a city in Solano County, a round-trip distance of approximately one hundred miles:

On the way to the terminal point, Tanya began talking about the things that stress her on the job. She said that the thing that stressed her out the most was the sense that your job was on the line at all times, the sense that someone was looking over your shoulder and you could get busted for almost any infraction and then lose your security. I registered a little bit of surprise at hearing this because I often hear the opposite line, that Muni is a very secure job, because it was a civil service position. She said basically that was yes and no. She brought up the example of getting a write-up from your supervisor first thing in the morning as part of your outfit and how upsetting get such a thing could be, and the resulting effect that such a message could have on your performance for the rest of the day. I asked whether the Union could intervene in any meaningful way on behalf of the operators. Her reply was, The Union is Muni! (She repeated this several times -- basically registering her opinion that the union worked hand and glove with Muni management, or if it didn't quite do that, it played favorites in a way that made her distrust its abilities to help her and her fellow operators....

She continued on with her analysis of how people end up stressed and hypertensive while working at Muni, “You get the letter or whatever from your supervisor in your outfit, you’re driving angry, you get into some kind

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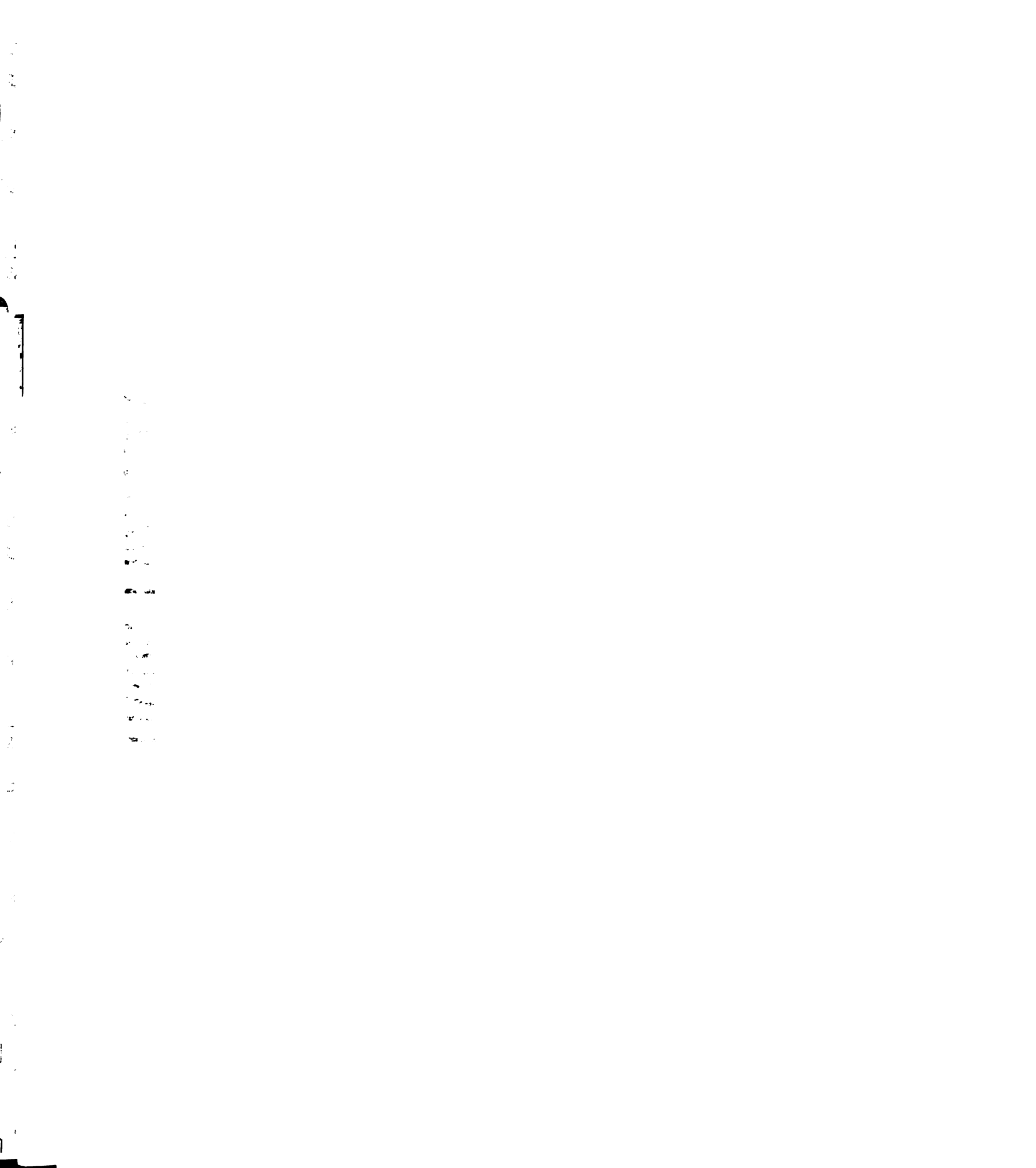
of accident, whether chargeable or not, you are hurt, now you're going out on C.I. [disability]⁸⁴.”

I asked Tanya what she did to relieve herself from these pressures at the end of a day. She said that the drive home sometimes helped (she lives in Vallejo), but that she often walks into the house with the residue of the day's events still with her. She said that her 18-year old daughter often tells her, “You need to run around the block before you come in the house because you be flashin', Mom.”

What were the categories of events that Tanya described? They were situations where someone with power over her had the opportunity to assess her negatively and that threatened her sense of security and made her **mad** or **scared**, and often a mix of both. My analysis of the sources of job stress revealed nine categories that operators repeatedly referred to: equipment, traffic, the schedule, the public, relationships with management, fellow operators, the union, social perceptions/social image, racism. Each of these categories, which I heard about or witnessed first hand, stimulated anger and/or fear.

For instance, with equipment, the problem was that it was often either broken or defective, and operators, despite having union rules permitting them to refuse to drive in such cases, often felt forced to drive anyway. In the category, “the public,” there is contained resentment vis-a-vis the verbal abuse operators frequently receive (e.g., “10-fuckin'-30!”) and the very real threat of physical violence (outlined earlier at the end of Chapter Two). The feelings created by relations with management were summarized in Tanya's remarks from my fieldnotes above. In the category of fellow operators, this most often took the form of concerns about time: “she's 'riding on my time,’” “I don't have a leader today, he must be running sharp,” these expressions highlight the daily worries of

⁸⁴C.I. stands for “compensated injury,” i.e., a work-related injury that is covered by workers' compensation and/or other forms of insurance



operators who both expected themselves (and were obliged) to adhere to a rigid schedule (which was subject to verification by street supervisors at major intersections along the route) and who also sought to get their break time at the end of a run. Despite the isolation associated with driving public transportation (Heath, Hindmarsh, and Luff 1999, e.g.), your fellow operators can make your work life harder or easier by the way they pace their buses in front of and behind you along the route. Racism was something that made not only black, asian and latino operators angry, but also the white operators who were in my sample pool. Black and white transit operators occasionally expressed out loud their belief that the reason why Muni was so despised by San Franciscans was because it was a largely black work force that was relatively well paid – thus inspiring “player-hatred” (jealousy) from riders. Black women transit operators occasionally experienced a related form of harassment from some of the “underclass” black men who sometimes boarded their buses and who would comment negatively on their “uppity-ness” when they refused to give them a free ride. The more senior women also told me this had been their experience with some of their fellow (male) transit operators when they first came “on the property” in the early ‘80s, when women transit operators were a novelty.

Operators described the toll that these kinds of situations took on them. This extract from my interview with Mark, another black transit operator with twenty-five years of experience on the job is the most eloquent example, but not atypical. We had been discussing what it was like to operate on a regular run – the same schedule every day – as opposed to “driving off the extra board,” that is, filling in for people who were calling in sick, on vacation, etc., which he had done for many previous years.

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Mark: The only thing that complicates the issue ... When I was on the extra board, I didn't have the commitment, so I didn't really care. ... But now that I do have commitment, I care about what's going on and the like. It makes me vulnerable because I could look over my shoulder and see my coworkers screwing up and I kinda get, "Hmmm, you know, if you didn't feel like working you shoulda stayed home!" And that's kinda like taking it to another extreme. And sometimes I can feel my blood pressure go up.

BD: Really, you can feel it go up?

Mark: Oh like, because in certain individuals you know like they gonna leave early or do this, or they see people coming for the bus and they take off, and drive off and leave them. But like [3 second pause] ... But [emphatic] you know, management don't care, they [2 second pause] why should you be feelin' like you're Atlas? Carrying all of these problems [laughing], you know so [voice trails off]

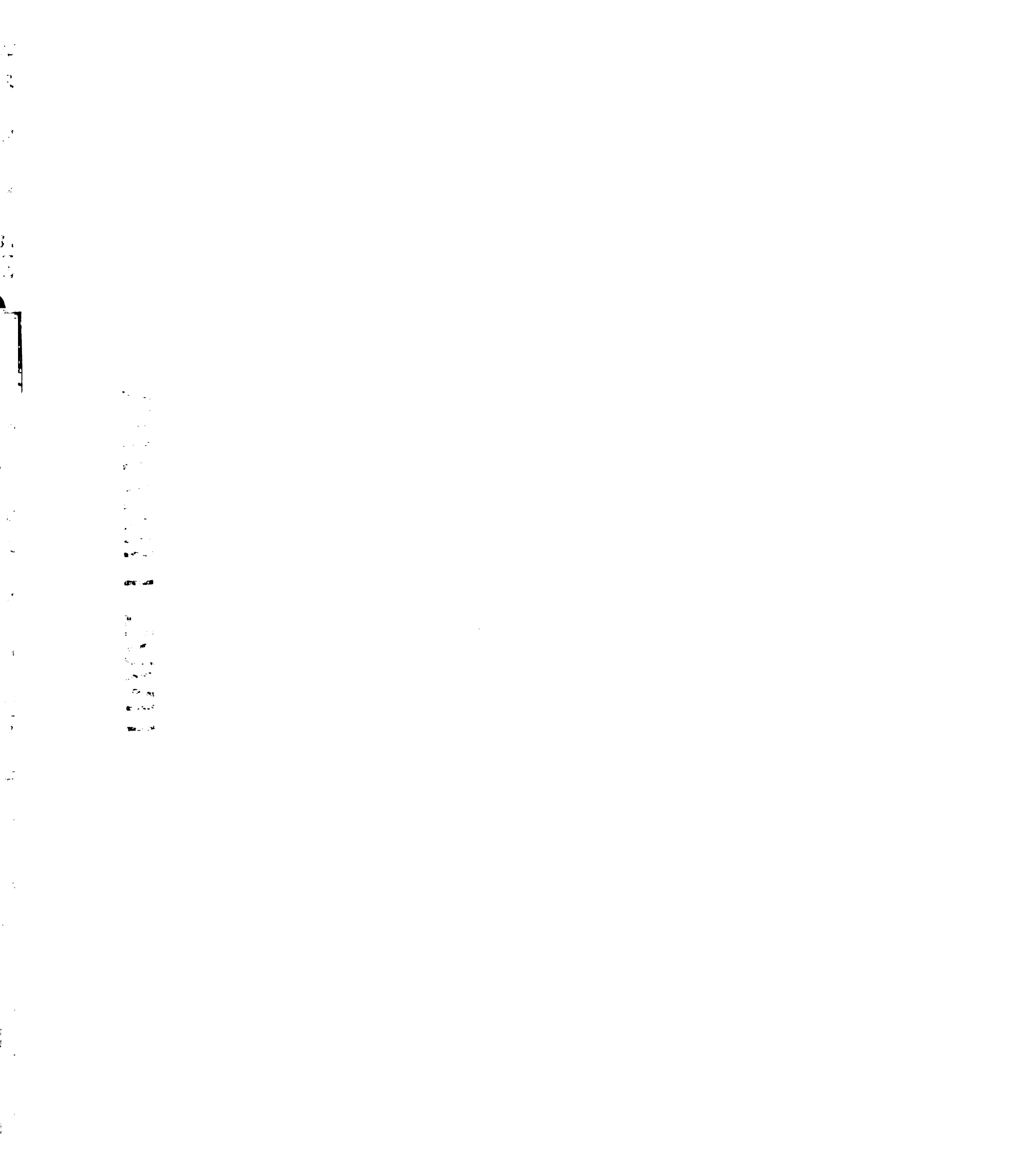
BD: So why do you?

Mark: Just my personality, my veneer. You know even when I was a janitor I tried to have the floors just like [he makes sound like "pow," blowing breath out], half a tiptoe might be, you might scared you might slip and fall!

A few minutes later Mark said:

You know, the driving part of it, the in and out of traffic and stuff like that, that really doesn't bug me too much, but when I have to have unnecessary conversations about anything that's going to lead to altercations or somebody calling me a name or stuff like that, you know, of course I don't like that, I don't think anybody does and we're expected to be just like human sponges, just suck everything in, you know?

First Mark compares himself to Atlas, shouldering all the problems of the world, then he uses the metaphor of his body as a sponge, absorbing all the abuse that is heaped upon him. Another operator, talking about his recent diagnosis of irritable bowel syndrome said, "it [the daily hassles of his job] just has to accumulate on the body." A third former operator, now a trainer for Muni, expressed the sense that the stress "has to come out somewhere," almost like an overloaded electrical circuit that has to be



discharged, echoing the metaphor Cannon devised almost a century earlier. In short, operators, speaking in the language of stress that suffuses our culture, told me over and over again, “my job makes me sick!” Four themes dominated: 1) my job makes me sick – I hate my job; 2) this job exposes me to contagion/contamination; 3) this job is breaking my back; and 4) this job can kill you. I will briefly describe each of these thematic areas before transitioning to the final section of this chapter, in which I will tie together the theoretical and ethnographic expositions of the stress discourse and stressed people.

My job makes me sick – I hate my job! Operators talked about their jobs making them sick in a number of ways, including the metaphoric, which was the way they vocalized dissatisfaction or distress about the circumstances of their work. This was not commonly openly expressed, although more than a few people told me that the money was really the only thing that kept them coming to work. In this exchange with Thomasine, a black woman and a 16-year veteran of Muni, the language is crystal clear:

BD: Thomasine, I wonder whether some of it is, you know, just the fact of, you know, I don’t mean to stir up emotions in you, but you know, I wonder whether part of that is the fact of working at job that you...

Thomasine: ... that I hate?

BD: ... basically can’t stand! [5 second pause] You know I’m way way away from what I’m supposed to be talking to you about [laughing].

Thomasine; Yeah, I hate this job but I gotta do it.

BD: Do you really?

Thomasine: I tell my husband all the time, I tell him this job is killing me! ... and that I don’t want to do this anymore. ...He hasn’t gave me what answer I need [upward fleck of voice, almost a question]: ‘Just quit, Thomasine. It’ll be OK.’ Obviously, he hasn’t said that. If he would say

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that, I woulda been quit. I can't just quit not knowing if he'd be there to pick up the slack.

Most of my informants did not express themselves so bluntly, but many told me that it had taken them a long time to adapt to their working conditions, and how they suffered until they found a way to accommodate themselves. For example, David, a Filipino operator active in the union, reported that it took him three years before he became comfortable operating the trolley buses that he still drives, more than twenty years into the job. He found that he couldn't stand the daytime traffic and the crowded conditions on the lines that he drove. It wasn't until he switched to evening shifts and a line with what he perceived to be a lighter passenger load that he began to feel more comfortable about operating (Yen, Frank, and Auerbach 2002).

Other operators I spoke to, including many who were not specifically "subjects" of my study, told stories very similar to David's. Over time they had figured out how to cope with the conditions of their job, and often had little expressions that helped them. For example, Betty, another operator with more than fifteen years experience, told me that she told herself, "I'm driving for Muni, but I'm working for Jesus." Another operator said that his attitude toward his passengers was, "I make my day, YOU just add to it." Brian, one of my key informants, commented on this point:

Brian: I think for a lot of drivers that's a very tangible, clear reward ... They like doing that [service to the public]. Helping people. The ones that don't like that—this job is miserable. They hate it. If they don't see that aspect of it.

BD: Yeah.

Brian: It's just -- "the public is the enemy."

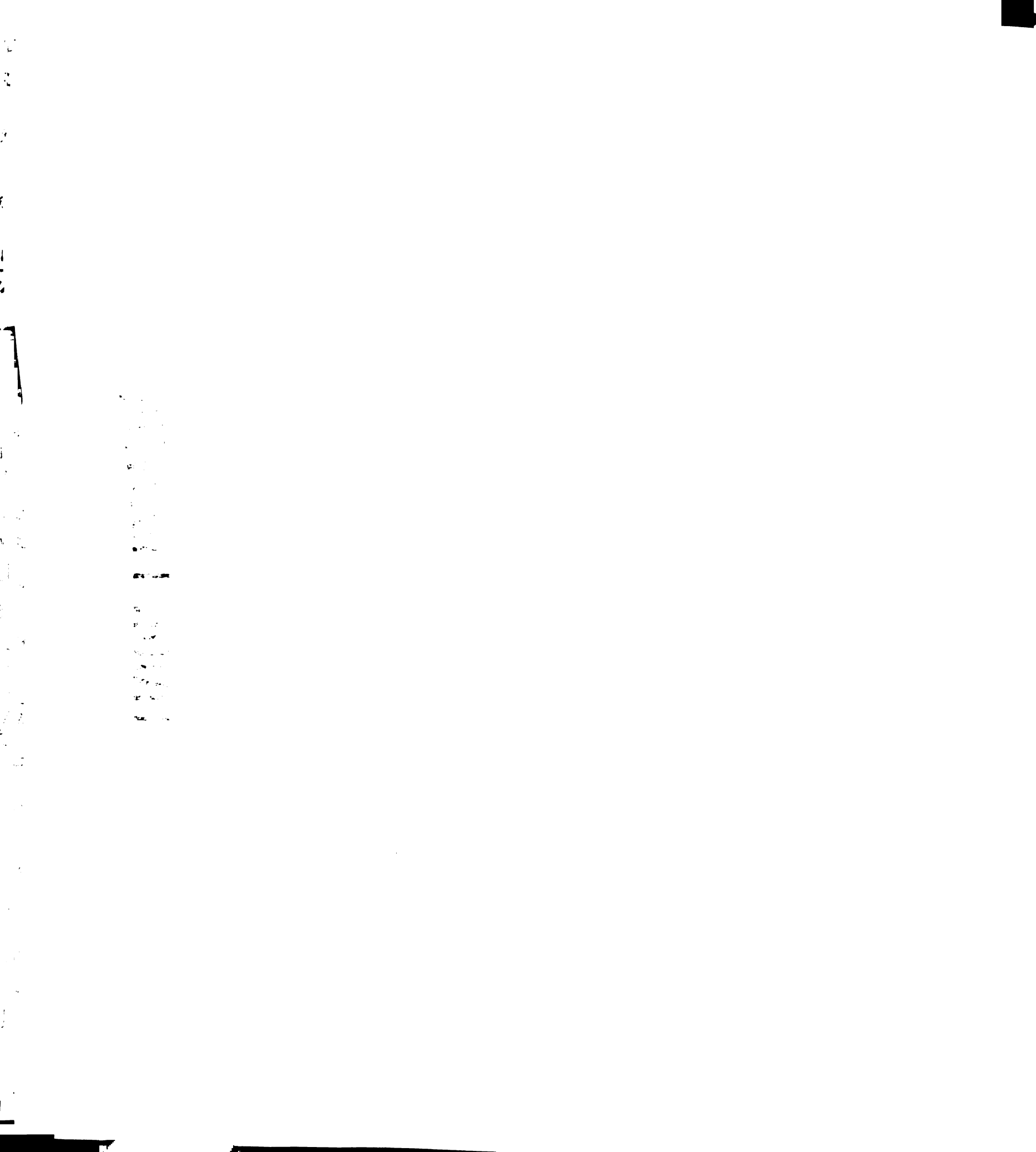
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BD: Yeah. I wonder whether the public—for some of those people—turns into the enemy. You know? Just by virtue of the job sometimes.

Brian: Well, the way I always describe it is that management sets up the conditions that allows the public—the riders—and the drivers to fight it out over who is going to get screwed: “Am I going to get my layover at the end of the line or are you going to miss the bus because you’re running up and banging on the door? Well, you’re going to miss this bus because I’m getting my layover.”

This is another element in the “I hate my job” theme – the actions of “the bosses” “make me mad or frustrated” and the response is to withdraw and retreat, basically do the minimum necessary and find satisfaction in life from some other part of existence. In this, the transit operators are not that different from many other wage earners in affluent post-modern societies (Gardell 1977).

2) This job exposes me to contagion and contamination. Most Muni operators wear gloves when they drive the bus and they will tell you that the gloves serve two purposes, they help with the grip on the steering wheel, but they also prevent direct hand-to-hand contact with the riding public or surfaces the public has touched. One of my subjects told me a story of getting TB as a result of being coughed on by a passenger on a crowded bus. Many operators told me stories of getting colds or the flu as a result of exposure to the public. There is a name for this – it’s called “the bus bug.” One former operator, now an administrator, used his gloves whenever I rode the bus with him -- he didn’t want to put his bare hands on the poles or the hanging straps that are there for standing passengers to grip in order to steady themselves. He also advised me to look closely at seats on the bus before sitting down.



A cable car conductor told me that he had concerns about getting cancer from exposure to something toxic associated with the cables. He said this possibility was talked about among his compadres. He had done his own epidemiology and concluded, based on the number of people that he knew who had had cancer in his division that there had to be some industrial/occupational exposure. Contrasting this, another cable car gripman blamed his experience with prostate cancer on his earlier work in a paint factory. Whether it is a germ or a contaminant, work-related exposure holds these ideas together as another way the operators believe their jobs make them sick.

3) This job is breaking my back. All of my research participants and many of my more casual informants told me about a musculoskeletal injury that they directly attributed to operating transit equipment. Every one of my research participants with a single exception had taken “C.I.” time off work for this reason. The most common injuries were to the lower back or knees, but I heard about injuries of every body part or joint. They occurred several ways: a) the result of an accident or other unusual work occurrence, such as having to lift a passenger in some kind of emergency situation; b) the result of equipment that is either poorly designed or (more often) worn out; c) the result of some sort of overuse – the occupational health term is “static loading” as for example, gripping the T-stick⁸⁵ on the new Breda⁸⁶ cars used on the light rail vehicle lines; or d) the result of a physical assault on the operator.

⁸⁵**T-stick** - This is the main implement for accelerating and braking on the new models of light rail vehicles, controlled with the left hand.

⁸⁶Breda is the name of the manufacturer of the new cars.

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Among other things, these reports underlined the relationship between working conditions and a bio-mechanical complaint. Knee injuries often were a function of the difficult brakes on the older equipment that operators had to use, especially on the trolley buses that go up and down the steepest hills in San Francisco. A metaphoric connection could be made between broken-down buses and “broke-down” bodies. In considering violence on the bus, it is tempting to extend the metaphor to broken-down social bodies (the bus as a microcosm for the world outside) and bus drivers’ physical ailments (Scheper-Hughes and Lock, 1987).⁸⁷

4) This Job Can Kill You! Finally, there exists what I have termed the “working yourself to death” story. I heard many versions of this story, perhaps partly because my primary contacts were with transit operators with greater seniority. The general form that this story took was for the narrator to offer a report about a recently retired operator who had died within a short period of time – sometimes expressed in months, sometimes a few years – of having retired from the job. Sometimes the story was told abstractly – “it’s a known fact that...” More often it was a personal story – someone whom the storyteller actually knew. Sometimes the person wasn’t dead, but he’d had a stroke (most often), or a heart attack (less frequent). These stories were a kind of a morality tale – a cautionary message about “taking care of yourself,” and a message about the cost of work at Muni. While answering a question about how the union had come to be involved in the

⁸⁷It is apposite to note the comment of one of Hochschild’s informants here: “Do you know what they call us when we get sick? *Breakage*. How’s that for a ‘positive attitude’?” (Hochschild 1983:136).

3.

1. The first part of the document is a list of names and addresses of the members of the committee. The names are listed in alphabetical order. The addresses are listed in the same order as the names. The list is as follows:

Name	Address
Mr. A. B. C.	123 Main St., New York, N. Y.
Mr. D. E. F.	456 Broadway, New York, N. Y.
Mr. G. H. I.	789 Park Ave., New York, N. Y.
Mr. J. K. L.	1010 Fifth Ave., New York, N. Y.
Mr. M. N. O.	1111 Madison Ave., New York, N. Y.
Mr. P. Q. R.	1212 E. 86th St., New York, N. Y.
Mr. S. T. U.	1313 E. 92nd St., New York, N. Y.
Mr. V. W. X.	1414 E. 98th St., New York, N. Y.
Mr. Y. Z. A.	1515 E. 104th St., New York, N. Y.
Mr. B. C. D.	1616 E. 110th St., New York, N. Y.
Mr. E. F. G.	1717 E. 116th St., New York, N. Y.
Mr. H. I. J.	1818 E. 122nd St., New York, N. Y.
Mr. K. L. M.	1919 E. 128th St., New York, N. Y.
Mr. N. O. P.	2020 E. 134th St., New York, N. Y.
Mr. Q. R. S.	2121 E. 140th St., New York, N. Y.
Mr. T. U. V.	2222 E. 146th St., New York, N. Y.
Mr. W. X. Y.	2323 E. 152nd St., New York, N. Y.
Mr. Z. A. B.	2424 E. 158th St., New York, N. Y.
Mr. C. D. E.	2525 E. 164th St., New York, N. Y.
Mr. F. G. H.	2626 E. 170th St., New York, N. Y.
Mr. I. J. K.	2727 E. 176th St., New York, N. Y.
Mr. L. M. N.	2828 E. 182nd St., New York, N. Y.
Mr. O. P. Q.	2929 E. 188th St., New York, N. Y.
Mr. R. S. T.	3030 E. 194th St., New York, N. Y.
Mr. U. V. W.	3131 E. 200th St., New York, N. Y.
Mr. X. Y. Z.	3232 E. 206th St., New York, N. Y.
Mr. A. B. C.	3333 E. 212th St., New York, N. Y.
Mr. D. E. F.	3434 E. 218th St., New York, N. Y.
Mr. G. H. I.	3535 E. 224th St., New York, N. Y.
Mr. J. K. L.	3636 E. 230th St., New York, N. Y.
Mr. M. N. O.	3737 E. 236th St., New York, N. Y.
Mr. P. Q. R.	3838 E. 242nd St., New York, N. Y.
Mr. S. T. U.	3939 E. 248th St., New York, N. Y.
Mr. V. W. X.	4040 E. 254th St., New York, N. Y.
Mr. Y. Z. A.	4141 E. 260th St., New York, N. Y.
Mr. B. C. D.	4242 E. 266th St., New York, N. Y.
Mr. E. F. G.	4343 E. 272nd St., New York, N. Y.
Mr. H. I. J.	4444 E. 278th St., New York, N. Y.
Mr. K. L. M.	4545 E. 284th St., New York, N. Y.
Mr. N. O. P.	4646 E. 290th St., New York, N. Y.
Mr. Q. R. S.	4747 E. 296th St., New York, N. Y.
Mr. T. U. V.	4848 E. 302nd St., New York, N. Y.
Mr. W. X. Y.	4949 E. 308th St., New York, N. Y.
Mr. Z. A. B.	5050 E. 314th St., New York, N. Y.
Mr. C. D. E.	5151 E. 320th St., New York, N. Y.
Mr. F. G. H.	5252 E. 326th St., New York, N. Y.
Mr. I. J. K.	5353 E. 332nd St., New York, N. Y.
Mr. L. M. N.	5454 E. 338th St., New York, N. Y.
Mr. O. P. Q.	5555 E. 344th St., New York, N. Y.
Mr. R. S. T.	5656 E. 350th St., New York, N. Y.
Mr. U. V. W.	5757 E. 356th St., New York, N. Y.
Mr. X. Y. Z.	5858 E. 362nd St., New York, N. Y.
Mr. A. B. C.	5959 E. 368th St., New York, N. Y.
Mr. D. E. F.	6060 E. 374th St., New York, N. Y.
Mr. G. H. I.	6161 E. 380th St., New York, N. Y.
Mr. J. K. L.	6262 E. 386th St., New York, N. Y.
Mr. M. N. O.	6363 E. 392nd St., New York, N. Y.
Mr. P. Q. R.	6464 E. 398th St., New York, N. Y.
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Mr. Q. R. S.	7373 E. 452nd St., New York, N. Y.
Mr. T. U. V.	7474 E. 458th St., New York, N. Y.
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Mr. Z. A. B.	7676 E. 470th St., New York, N. Y.
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Mr. L. M. N.	8080 E. 494th St., New York, N. Y.
Mr. O. P. Q.	8181 E. 500th St., New York, N. Y.
Mr. R. S. T.	8282 E. 506th St., New York, N. Y.
Mr. U. V. W.	8383 E. 512th St., New York, N. Y.
Mr. X. Y. Z.	8484 E. 518th St., New York, N. Y.
Mr. A. B. C.	8585 E. 524th St., New York, N. Y.
Mr. D. E. F.	8686 E. 530th St., New York, N. Y.
Mr. G. H. I.	8787 E. 536th St., New York, N. Y.
Mr. J. K. L.	8888 E. 542nd St., New York, N. Y.
Mr. M. N. O.	8989 E. 548th St., New York, N. Y.
Mr. P. Q. R.	9090 E. 554th St., New York, N. Y.
Mr. S. T. U.	9191 E. 560th St., New York, N. Y.
Mr. V. W. X.	9292 E. 566th St., New York, N. Y.
Mr. Y. Z. A.	9393 E. 572nd St., New York, N. Y.
Mr. B. C. D.	9494 E. 578th St., New York, N. Y.
Mr. E. F. G.	9595 E. 584th St., New York, N. Y.
Mr. H. I. J.	9696 E. 590th St., New York, N. Y.
Mr. K. L. M.	9797 E. 596th St., New York, N. Y.
Mr. N. O. P.	9898 E. 602nd St., New York, N. Y.
Mr. Q. R. S.	9999 E. 608th St., New York, N. Y.

epidemiologic research on transit operators that is still ongoing at the University of California Berkeley School of Public Health, a former union local president told me :

...we had two years—one year eighteen people died and then the next year it was twenty people died. And some of them were retired and some were active. But the number was so high I said—gosh, something is wrong here to have this many folks who are retiring and don't get a chance to live long. Something is wrong with this job and we need to try to find out what it is.

In summary, it is important to remember that the discussions from which these themes emerged occurred most often in the context of interviews with transit operators who had hypertension and in which the explicit focus of the interview was on their high blood pressure. What I found most striking (and which I analyze in the next chapter) is the **infrequency** with which transit operators referred to their hypertension as one of the ways “their jobs made them sick.” Although Mark talked about feeling his blood pressure rise” (page 130 above), his comments were atypical. On the other hand, operators did make explicit links to the musculoskeletal problems and to the idea of “working yourself to death.” But even though transit operators were knowledgeable about health consequences of hypertension and they were aware of those among them who had these conditions, they did not often connect these illnesses with the “working yourself to death” stories that they heard. The experiences that got linked to the job were the things that they could feel – a pain in the knee or shoulder, the aggravation and annoyance of one more petty memo from management, the general lack of respect from the riders and the bosses, the fear that the drunk guy who just got on the bus was going to cause a commotion – this was the stuff about their jobs that “made them sick.” Where does the stress discourse fit in this? And is there a way to make it fit better?

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Job strain and “threats to social self” research: the bridges from discourse to bodies

The question becomes how to combine the evidence from several disparate forms of data: physiological, epidemiological, psychological and anthropological. If as I have argued in the case of Muni transit operators, stress means events that make them angry and events that make them fearful, there may be a way to link the anthropological evidence to the psychological in a way that does not give unwarranted primacy to the individual actor in the analysis, but rather demands that actors be considered in relation to each other, and in their full socio-historical context. Such an analysis would bring Mauss’s vision of the ‘total man’ into the twenty-first century. Here are the bare bones of the argument:

1) Transit operators find themselves in a job that evokes emotions, mainly anger and fear, on a daily basis.

2) Transit operators also have very little control over the circumstances of their work. The number one issue here is the schedule, which is absolute and which is a concrete criterion against which supervisors evaluate their performance often without regard to the unpredictable circumstances that would impinge on their ability to adhere to it.

3) Transit operators practice an occupational emotional habitus that I term “cool pose” (Majors 1992). This is an outward expression of the “feeling rules” that they learned on the job which enable them to continue in their work.

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4) Transit operators have also adopted a language for describing their emotions that takes up the historically specific discourse of stress. This language is a manifestation of the “framing rules” they rely on to explain their work circumstances to themselves.

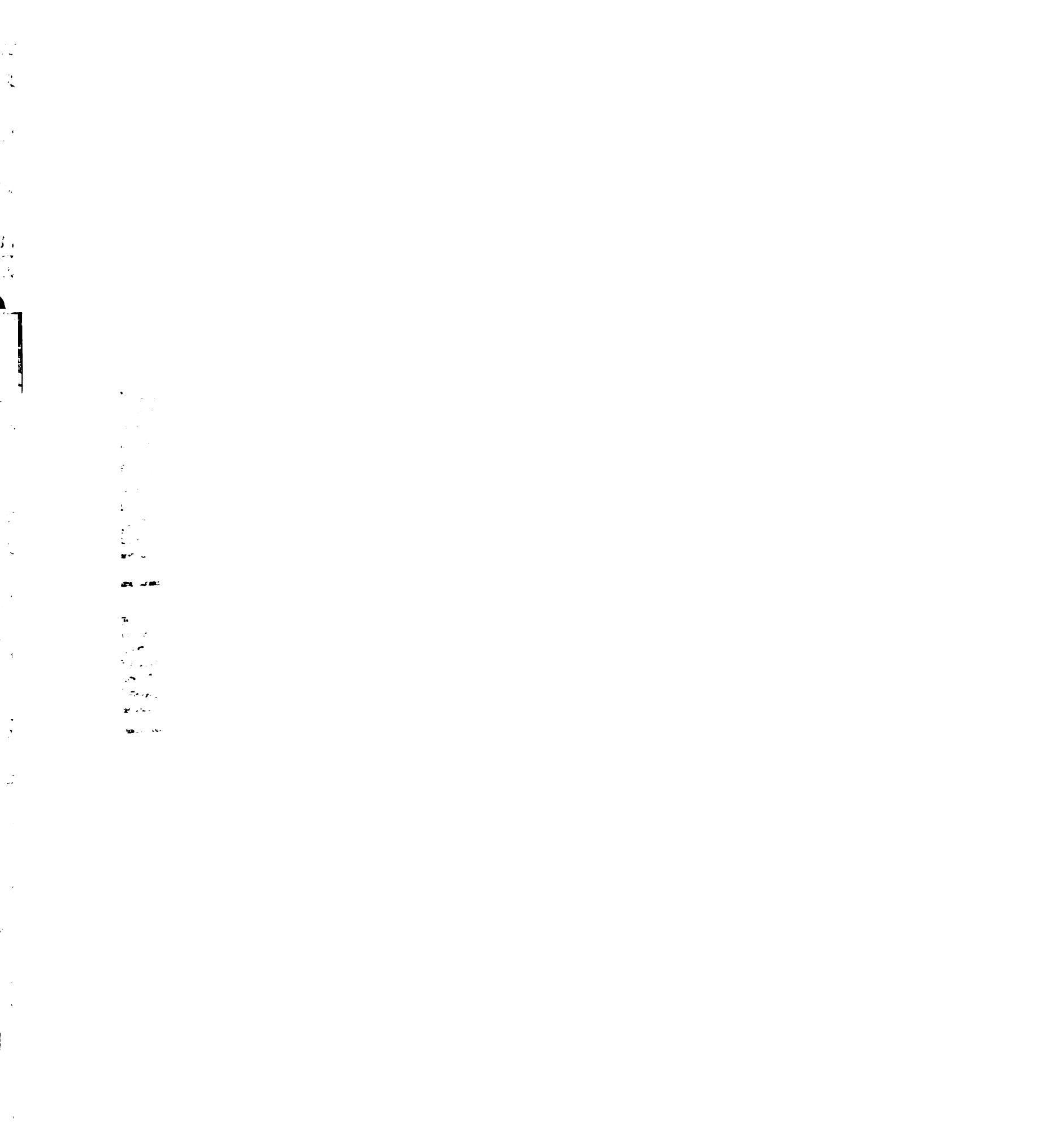
5) This set of circumstances fully meets the criteria of the **job strain model** of Karasek and Theorell, which has been proposed as an explanation for higher rates of illness among workers whose jobs can be “objectively” characterized by as having high demands for performance and low control of the circumstances under which the work is performed [1990].

6) My ethnographic evidence suggests that it is the transit operators’ **emotional responses to these objective circumstances** of the job that are the key to understanding the impact of the job on their health.

7) Focusing on emotions is consonant with Dickerson and Kemeny’s hypothesis of “threats to social self” as those which activates the physiological systems that produce cortisol, which has been identified as a key hormone in the “stress response” (2004).

8) Though the meta-analysis on which Dickerson and Kemeny’s model is based looked only at laboratory-based psychological studies, there is nothing in their model that gives primacy to the atomized individual. In fact, their model hinges on social relations, since it is the evaluative threat from another that primes the response that causes the release of cortisol.

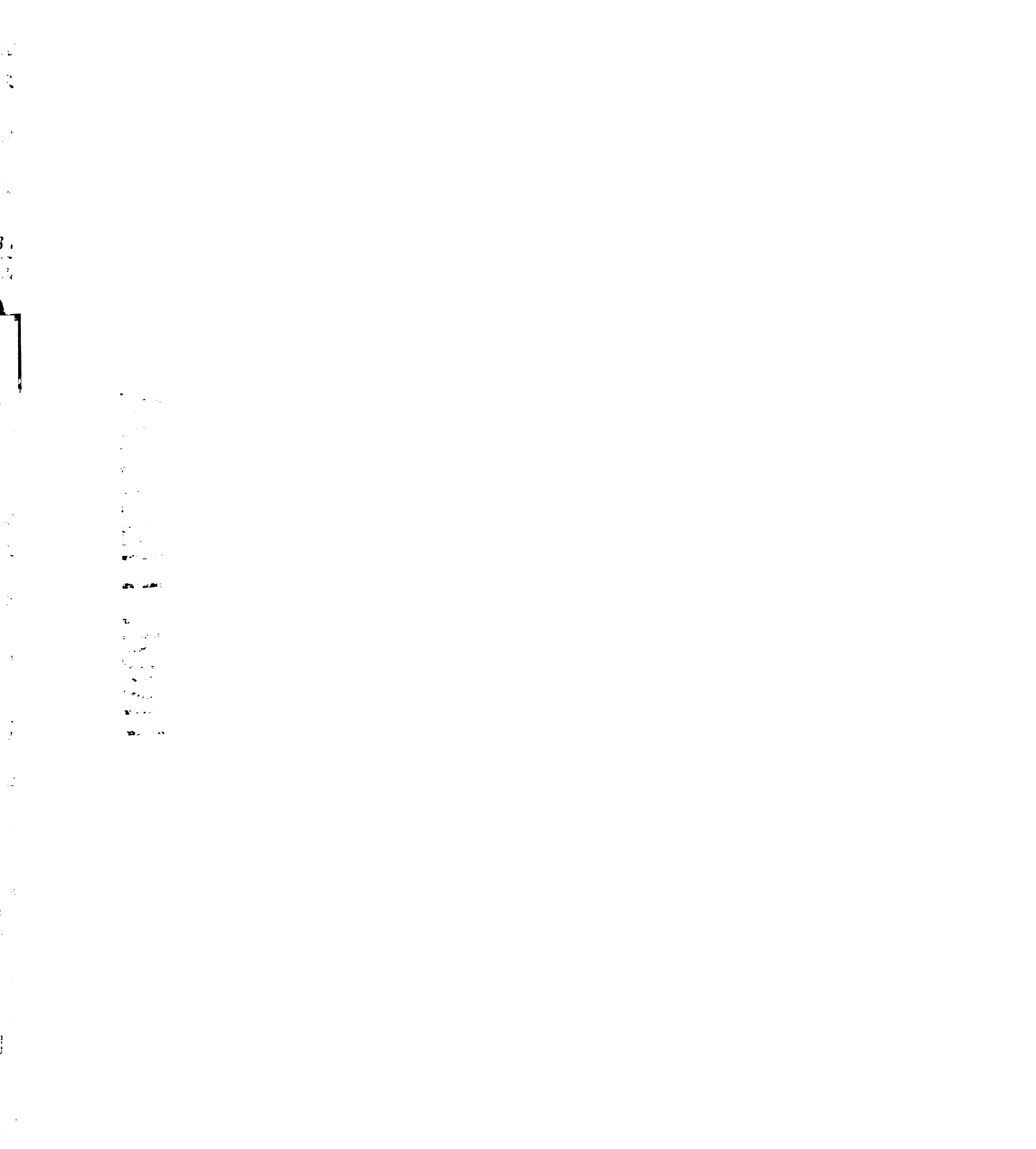
9) Dickerson and Kemeny’s model also fits nicely with the job strain research. It also works well with effort-reward imbalance (Siegrist 1990), John Henryism (James



1993), and cultural consonance (Dressler and Bindon 2000) models since all of these contain an element of “threat to social self” as their key feature.

Fleshing out the skeleton. Points one through four and point six have been established in the ethnographic and theoretical exposition of the dissertation so far, and need no further elaboration here. In this section I provide the main additional pieces of information, a synopsis of the job strain (also known as demands-control) research and a synopsis of the ‘threats to social self’ hypothesis.

Job strain. At the beginning of the stress discourse section of this chapter, I alluded to a line of research on work stress that is distinctly different from the “role stress” or “person environment fit” research that dominated the field in the sixties, seventies and eighties. This approach has been named the “job strain” model (Karasek and Theorell 1990; Schnall, Landsbergis, and Baker 1994; Syme 1990). The job strain model is distinguished by its focus on the work conditions that people find themselves in, rather than the people themselves. It was influenced by and emerged out of a series of studies done in Scandinavia (Gardell and Gustavsen 1980; Newton, Handy, and Fineman 1995) that looked at worker control as a variable in improving job satisfaction. The primary features of the model measure psychological job demands (**demands**) and job decision latitude (**control**). Combinations of these variables reveal four job types: **low strain** (low demand/high control), **active** (high demand/high control), **passive** (low demand, low control) and **high strain** (high demand, low control). It is this latter category of work that Karasek hypothesized posed the greatest risk of “psychological strain and physical

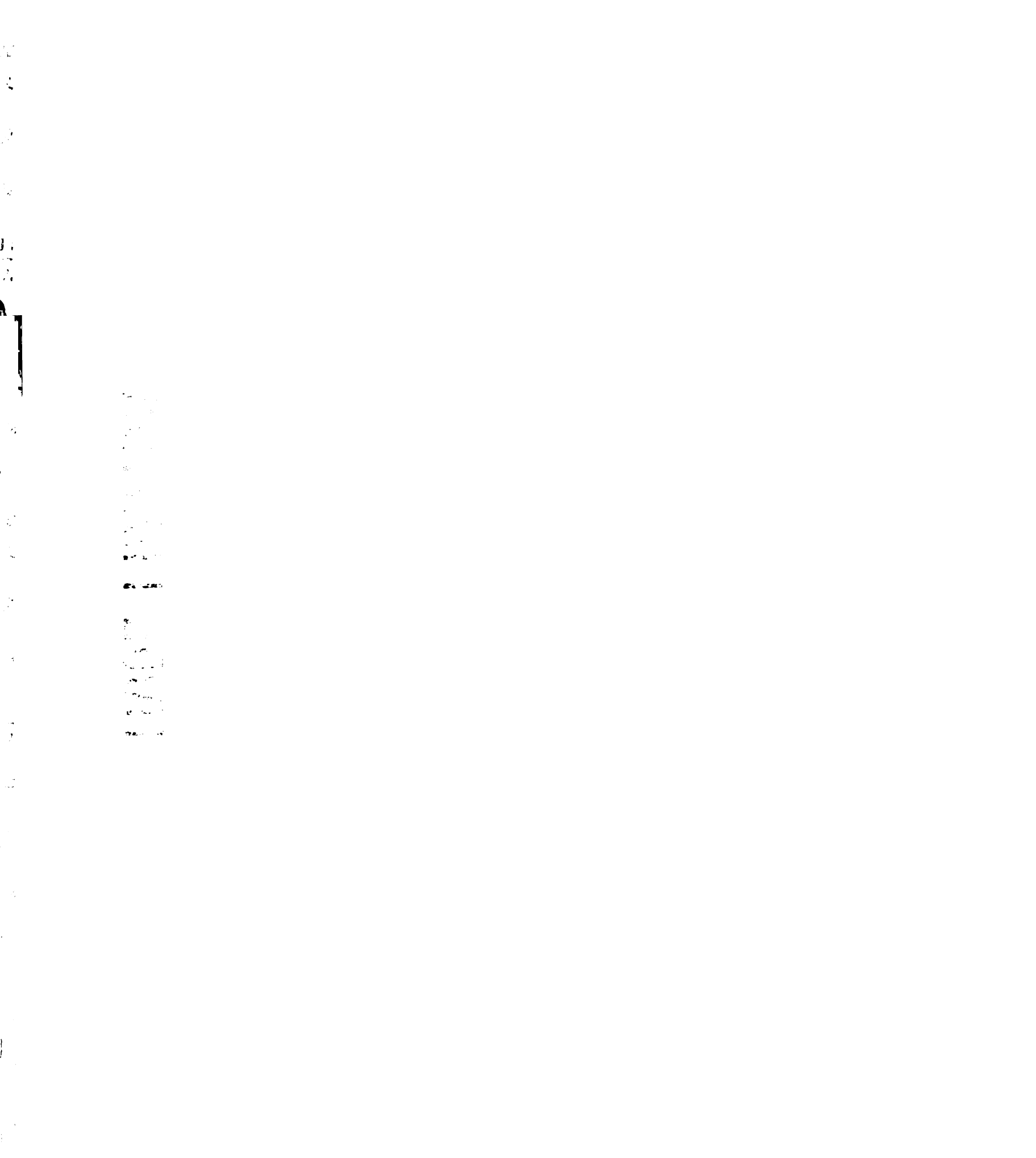


illness” (Schnall, Landsbergis, and Baker 1994:382). High strain accurately characterizes the work of transit operators and flight attendants (Hochschild 1983).

A review of the job strain literature published in 1994 concluded that evidence accumulated to that date “[t]aken as a whole ... suggest[s] job strain acts, in part, to cause CVD [cardiovascular disease] through the mechanism of elevated blood pressure” (Schnall, Landsbergis, and Baker 1994:392). More recent research has strengthened this assertion including research specifically looking at Muni transit operators and transit operators more globally (Belkic, Savic, Theorell, Rakic, Ercegovic, and Djordjevic 1994; Gobel, Springer, and Scherff 1998; Johansson, Evans, Rydstedt, and Carrere 1998; Ragland, Greiner, Holman, and Fisher 1997). The job strain model does a better job of predicting the incidence of health problems than models that focus on personality factors, like Type A behavior, for example (Langford and Glendon 2002). This brief summary only begins to address the details of this model, but it is sufficient to help you understand how it relates to the broad features of the argument I am trying to make.

Threats to social self. In a paper published in Spring 2004 Dickerson and Kemeny report on their meta-analysis of 165 laboratory studies that looked at acute psychological stressors.⁸⁸ They were interested in what sorts of psychological stressors trigger the hypothalamic-pituitary-adrenal cortex (HPA) axis because physiologists now believe that the HPA axis plays a central role in the negative effects of the “stress response.” Before

⁸⁸Dickerson and Kemeny were looking at laboratory studies, hence the focus on “acute” stressors. Their paper does point out primate studies by Sapolsky and others that make the same observation in the case of “chronic threats to social status” as well, i.e., that these reliably cause dramatic increases in cortisol activity (see Dickerson and Kemeny 2004, section titled “Social Preservation Theory.”)



describing their findings it is important to provide a brief explanation of the relevant biology.

Selye's original model focused only on the hormones released by the adrenal glands – originally called adrenaline and noradrenaline, now more frequently referred to as epinephrine and norepinephrine. Now it is known that two different and related physiological activities occur in response to an appropriate stimulus, one about a minute ahead of the other. The first activity is that which is commonly termed the “flight or fight” (elsewise “emergency”) response and it is marked by the release of epinephrine and other hormones that cause blood vessels in the brain and muscle to dilate while those in the skin and gastrointestinal system constrict, thus maximizing the flow of blood to the parts of the body that will need a supply of oxygen and energy. At the same time heart rate and blood pressure increase, speeding the flow of blood to muscle and brain, breathing deepens and the liver begins to convert glycogen to glucose, the form of energy needed to feed muscle cells. All these processes prepare the limbs and brain for rapid action.

About a minute later the release of cortisol into the bloodstream by the adrenal cortex is triggered by the pituitary gland's secretion of adrenocorticotropin hormone, which itself was prompted by the production of corticotrophin releasing hormone (CRH) by the hypothalamus (the HPA axis). Cortisol is an important hormone with a number of metabolic effects; but key among them for this discussion are its role in stimulating an additional rise in blood glucose and the production of catecholamines that induce vasoconstriction of blood vessels, further increasing heart rate and blood pressure. These physiologic responses prepare the human body to expend energy: more sugar in the blood

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3. The third part of the document presents the results of the study, including a comparison of the different methods and techniques used. It also includes a discussion of the limitations of the study and the need for further research.

4. The fourth part of the document provides a conclusion and a summary of the findings. It also includes a list of references and a list of figures and tables.

stream is immediately available to burn as fuel, a faster heart rate and higher blood pressure assure that oxygenated blood is quickly delivered to muscles in need of oxygen, as part of the aerobic energy production cycle. This complex system has been described as evolutionarily adaptive for humans who needed to defend themselves or remove themselves from harm's way. This is the current understanding of the physiology underlying the flight or fight response.

It is hypothesized that activation of the HPA axis and subsequent release of cortisol have negative physiologic effects for one of either following reasons. In one case, repeated stimulus of the HPA axis causes the body to be exposed to higher concentrations of glucose in the blood and higher blood pressure for longer periods of time which over time contributes to atherosclerosis. In other proposed mechanism, the body becomes less able to shut down the cortisol production in a timely manner and it remains in circulation longer, thus stimulating all subsequent physiological systems with their presumed bad effects (McEwen 1998; Dickerson & Kemeny 2004). Regardless of mechanism, researchers are clear that cortisol is a major contributor to many cardiovascular disease risk factors including hypertension, elevated cholesterol, atherosclerosis and insulin resistance.

Dickerson and Kemeny were prompted to do their research because of the variability of effects reported in experimental situations that attempted to measure the "stress response." What they discovered in their analysis was striking. **The kinds of psychological stressors that produced the largest cortisol responses were those in which the experimental "tasks included social evaluative threat, in which others**

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could negatively judge performance, and particularly when the outcome of performance was uncontrolled ... These findings refute the notion that all psychological stressors elicit cortisol response. They also call into question the presence of a 'nonspecific' physiological response to all stressors that includes HPA activation" (Dickerson and Kemeny 2004, section titled "Discussion.")

The importance of this observation bears emphasis. What Dickerson and Kemeny are saying is that in addition to threats to basic physical survival which have long been known to stimulate the "stress response," **threats to social survival** carry the same freight. When these threats are **combined** in situations where experimental subjects have low control over the outcome, the cortisol response is highest. We have moved from a "general adaptation response" (Selye 1956) to a much more precisely described set of laboratory circumstances that activate the allostatic systems that can harm people if they stay on too long, or get activated too frequently. The authors point out that "the current tendency in the literature to use the word 'stress' in a vague and diffuse way has prevented focused research on specific kinds of threats that can affect health-relevant physiological systems" (Dickerson and Kemeny 2004, section titled "Discussion").

Dickerson and Kemeny's model resembles in many ways the work circumstances of Muni transit operators and transit operators more generally, who are known internationally to have higher rates of hypertension than other occupational groups to which they have been compared. Interestingly, they note that a series of studies called

“emotion-induction studies, on average, **failed** to activate the cortisol system.”⁸⁹ Since the description of this experimental design seems to focus on the eliciting of internal states without reference to a socially-related self, this finding, in my view, strengthens the argument that there is a connection between what Dickerson and Kemeny are talking about and the hypertension and other health problems experience by transit operators. I think it is the case that the strain in the job strain model is exactly this emotional response created by the high demands placed on a person in a job who is given limited control over his or her work and risks suffering negative consequences as a result. Job strain situations are commonly ones where the emotions of anger and fear would be a reasonable reaction, especially if your sense of security (will I keep my job?) feels threatened. Within the framework of American attitudes toward work and job status where bus driving ranks low on the occupational prestige scale, there is an additional “identity threat” that you face and it is reasonable to hypothesize that these factors could induce a response from the allostatic systems of the human body that would lead to a variety of physical problems that are indeed commonly seen in transit operators the world over, which heretofore have been characterized as problems emanating from “work stress.”

This is a subtle shift in the angle of view on a multifaceted situation, but it allows for the focus to be drawn away from the individual and on to the contextual sources and calls for a response that addresses these context variables, **in addition to whatever**

⁸⁹Dickerson and Kemeny describe emotion-induction studies as follows: “...presentation of emotion-eliciting material designed to automatically elicit a negative affective state (e.g. film) as well as free or guided mental generation of emotional states where participants recalled a situation where they felt a specific affective state, acted out an emotional scenario or experienced the mood cause by a series of statements (Dickerson and Kemeny 2004: section titled “Characteristics of the Stressor”).

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3. The third part of the document focuses on the analysis and interpretation of the collected data. It discusses the various statistical and analytical tools used to identify trends, patterns, and insights from the data.

4. The fourth part of the document addresses the challenges and limitations associated with data analysis. It highlights the need for careful interpretation and validation of results to avoid drawing incorrect conclusions.

5. The fifth part of the document provides a summary of the key findings and conclusions drawn from the analysis. It emphasizes the importance of communicating these findings effectively to stakeholders and decision-makers.

response is focused on the individual. Any analysis that remains tightly focused on an atomistic individual's psychology and biology as for example in current genetic fitness research paths that are now being proposed is insufficient (e.g., see Shostak 2003 on the emergence of environmental genomics as a research domain at the National Institute of Environmental Health Sciences).

This argument also stands in stark contrast to that of others who have looked at the Muni data and proposed a kind of "cultural psychology" explanation for the high rates of hypertension (Mann 2003). Though this approach also pays attention to emotion, it proposes to locate the health problems of the predominantly black workforce in alleged higher rates of child abuse in American black communities. The adult health problems seen among the transit operators are the result, it is proposed, of unhealed emotional scars caused by the wounds. This analysis ignores the body of data accumulated in studies performed across the United States, as well as in Sweden, Finland, the United Kingdom, Austria, Germany, the Netherlands, the Soviet Union, Italy, Brazil and India, Canada (see Table 1 (page 3) in Kompier 1996 for a list of the "important" international research studies) which demonstrated that across a wide range of cultural and geographic contexts, there is consistent evidence of higher rates of health problems in urban mass transit operators, including chronic respiratory symptoms, low back pain due to exposure to whole-body vibration, high level of musculoskeletal disorders of all kinds, higher rates of hypertension compared to other employed groups (including other types of professional drivers), increased numbers of myocardial infarctions, increased risk of ischemic heart disease (Evans and Johansson 1998; Kompier 1996; Ragland et al. 1998).

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To attribute these problems in black Muni transit operators to a warmed over Culture and Personality hypothesis seems farfetched to say the least. The specificity of the occupation helps to nail the case for a more temporally proximal social context. Evidence that black operators have higher rates than others sharing the same work environment only reminds us that in a multifactorial condition like hypertension, there is more than one social context, and blacks may feel the disrespect accorded transit operators more intensely because of their historical experience of slavery and Jim Crow in the United States. The specific issue of hypertension in transit operators takes center stage in the next chapter, shifting the focus away from the impact of the social on individual bodies to the task of the addressing the consequences of the impact.

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CHAPTER FIVE

MANAGING BY MAKING DO

This chapter focuses on what is at stake for the Muni transit operators who develop hypertension. The number of operators with hypertension is large and mirrors the epidemiology on hypertension in public transit employees the world over (Kompier 1996; Ragland et al. 1998; Winkleby, Ragland, Fisher, and Syme 1988a). I begin the chapter with a primer on hypertension in order to highlight the serious health consequences of this condition, followed by a demographic portrait of the twenty core research participants. Then I move to a brief discussion of how hypertension in professional drivers is regulated and managed both by governmental and quasi-governmental entities mainly, the U.S. Department of Transportation and the Employee Health Clinic at San Francisco General Hospital. I then turn to my research participants' own practices of hypertension management.

An important question underlying the analysis in this chapter is how people with chronic conditions are motivated to adopt practices of self care. In the later half of the chapter I make a case for a **social basis** of motivation. In the main, by directing the beam to the everyday practices of my informants, the spotlight in this chapter sheds light on the possibilities for change, both personal and social. Both this chapter and the next, "Occupational Wellness," fulfill the promise I made in the introduction of the dissertation to find a place for agency in the model of ideology and hegemony that I was building. This chapter focuses on agency – and reflects **tactics** (Certeau 1984) that operators use to manage their lives within the circumscribed possibilities that are available to them (Scott

1985). The next chapter, which addresses the institutional response, shows the strengths and the limitations of this agency.

A PRIMER ON HYPERTENSION

High blood pressure (hypertension) is currently defined as systolic blood pressure over 140 mmHg (millimeters of mercury) and/or diastolic blood pressure over 90 mmHg (JNC 7 2003b). It has been a major target of cardiovascular disease prevention efforts in the United States for the past fifty years. This illness was dubbed “the silent killer” in the public health campaigns of fifties and sixties because it remains asymptomatic for many years before its damage to various organ systems (cardiac, cerebral and renal) is manifest. Studies of the natural history of established hypertension undertaken before effective treatments were available documented high rates (greater than 50%) of end organ damage leading to death (Kaplan 1998:103). Most cases (approximately 95%) have no known physiologic cause; medical texts will often term this kind of hypertension as “essential” or “idiopathic” or “primary” (Williams 1992). Throughout the rest of this primer the unmodified term ‘hypertension’ will refer to this great bulk of cases for which there is no well defined cause.

Blood pressure is a continuous variable; for years researchers have found associations between higher systolic and/or diastolic blood pressures and a variety of diseases of the blood vessels of the human body, now hypothesized to be the result of inflammation due to prolonged exposure to the higher pressures inside the vessels (JNC 7 2003b). As of the 2003 publication of the Seventh Report of the Joint National

Committee on Prevention, Detection, Evaluation and Treatment of High Blood Pressure (abbreviated as JNC 7), blood pressure classifications have been modified. Table 1 summarizes the changes between JNC VI [sic] and JNC 7.

These changes reflect new evidence about the nature of the risks related to hypertension based on long term epidemiologic studies, especially the most recent, commonly referred to as ALLHAT (Antihypertensive and Lipid Lowering treatment to prevent Heart Attack Trial). The classification changes are not without controversy, however. Prominent researchers including the founder of the American Society of Hypertension, John Laragh, have criticized the recommendations of the JNC 7 Report on both scientific and political grounds (Brookes 2003). As regards to its scientific merit, Dr. Laragh argues that the treatment recommendations contained in it have changed little since the first JNC report in 1977, and that they fail to take into account other large studies such as the Second Australian National Blood Pressure Study (ANBP2) which show evidence of superior results (i.e. lower rates of end organ damage) using a different treatment protocol than those proposed by the JNC 7. Politically, Laragh and his colleagues expressed concern that criticism of the NIH-sponsored report has resulted in intimidation of researchers who risk not receiving the large research grants essential to their careers (Brookes 2003). Most relevant to my own research is Laragh's argument that in defining blood pressures in the range of 120-139 and 80-89 as "pre-hypertension," the JNC "creat[ed] 45 million more patients by fear" (Laragh quoted in Brookes 2003). He argued that the increased risk of cardiovascular disease in this group was small, and that there was a poor chance that people who found themselves in this category would be able to institute

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TABLE 1 - Comparison of JNC VI (1997) and JNC 7 (2003) Classifications of Blood Pressure			
SBP mmHg	DBP mmHg	JNC VI (1997)	JNC 7 (2003)
<120	and <80	Optimal	Normal
120-129	and 80-84	Normal	Pre-hypertension
130-139	or 85-89	High Normal	
140-159	or 90-99	Mild Hypertension (Stage 1)	Stage 1 Hypertension
160-179	or 100-109	Moderate Hypertension (Stage 2)	Stage 2 Hypertension
180 and above	or 110 and above	Severe Hypertension (Stage 3)	

the lasting lifestyle changes that the JNC 7 recommended, thus rendering moot any public health advantage gained by the label.

In short, the JNC 7 hypertension categories and treatment recommendations (see more on this topic below), though official, are not undisputed. I refer to them in this chapter because they reflect the current gold standard in the biomedical research community. These are the recommendations for that physicians practicing in the community should be aware of and applying to their own patients (though here again, “physician compliance” with official treatment guidelines has been studied and also found to be problematic (Kjellgren, Ahlner, and Sèaljèò 1995; Troein, Gardell, Selander, and Reastam 1997).

The most recent estimate of hypertension prevalence is 31.3% of the adult U.S. population (n = 65 million) (Fields, Burt, Cutler, Hughes, Roccella, and Sorlie 2004). This represents a dramatic increase in prevalence compared to the years 1988-1994, when the prevalence was estimated at approximately 23% (n = 50 million).⁹⁰ Internationally, blood pressure tends to increase with age in most populations where it has been studied, though exceptions to this rule suggest that this increase is a function of environmental influences rather than being a strictly “natural” phenomenon (Labarthe 1998:951).

⁹⁰This number is based on data collected by the National Health and Nutrition Examination Survey (NHANES) collected in 1999-2000. It was compiled by estimating the number of adults with elevated systolic or diastolic blood pressure, or having blood pressure below 140/90 and currently on antihypertensive medications (prevalence = 28.4%). To this is added the number of adults who by medical history have hypertension, that is, they have been told twice by medical personnel that they have high blood pressure (prevalence = 2.9%) (Fields et al 2004).

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Prevalence also varies by gender (see Figure 10), women being slightly more likely than men to have hypertension.

Most strikingly, hypertension also varies by race/ethnicity -- the age-adjusted prevalence rate of hypertension in American blacks (age 18 and older) is 37.5% for men and 39.5% for women, as compared to whites where the prevalence rate is 27.4% for men and 26.6% for women (Fields et al 2004). Although social class and occupational status explain some of these racial/ethnic differences, when roughly equivalent groups of blacks and whites are studied, the difference, though less, remains (Labarthe 1998).

The differences between black and white hypertension rates in the United States have been the impetus for prodigious research for the past three quarters of a century in fields as diverse as history, nutrition, epidemiology, psychology, anthropology, medicine, health education, and genetics (Anderson 1991; Cooper and Rotimi 1994; Cooper, Rotimi, Ataman, McGee, Osotimehin, Kadiri, Muna, Kingue, Fraser, Forrester, Bennett, and Wilks 1997; Cooper, Rotimi, and Ward 1999a; Cooper, Rotimi, and Ward 1999b; Dressler and Bindon 2000; Grim and Wilson 1993; James 1993; Kaufman and Barkey 1993; Syme and Torfs 1978; Williams 1999; Williams 1992; Winkleby, Ragland, Syme, and Fisher 1988b). It is impossible to address this complex and fascinating literature comprehensively in this context. But it is important to point out that the African-American population is genetically very diverse, and any explanation of higher rates of hypertension that sails solely on genetics will surely founder on the shoals of this reality – a fact underline in several publications (e.g.(Collins and Winkleby 2002; Jackson 1991).

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A substantial body of evidence exists that supports the assertion that social context has to be considered when addressing this disparity. Medical anthropologists, William Dressler chief among them, have made major contributions (Dressler 1996; Dressler and Bindon 1997; Dressler and Bindon 2000; Dressler, Grell, and Viteri 1995) in this arena, as have social epidemiologists, foremost among them Leonard Syme (Syme 1990; Syme 1997; Syme and al. 1974; Syme and Balfour 1998; Syme and Torfs 1978). As Thomas Pickering, one of the country's leading experts in the biomedicine of hypertension recently wrote, the number of studies conducted internationally that fail to show a consistent difference in blood pressure between people of African descent and people of European descent points to "the risk factor that has been almost totally neglected ... the social environment," and "the environmental factor that stares us in the face ... which has largely been ignored by researchers (perhaps because it is so politically sensitive): racial discrimination" (Pickering 2001). In short, the racial differences in hypertension rates reflect one aspect of "the social in the body" discussed in the previous chapter.

Rates of hypertension are inversely correlated with socioeconomic status (Syme and al. 1974) and educational level (American Heart Association 1999). Rates also vary by occupational level -- hypertension is more likely to be found among blue collar workers (Marmot and Theorell 1997; Schnall, Landsbergis, and Baker 1994; Syme 1990). One occupational group that is particularly at risk is transit workers (Winkleby et al. 1988a). Table 2 illustrates the prevalence of hypertension among male Muni transit operators with comparisons to various studies of the general population.

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Table 2 reports on data collected as part of the initial epidemiologic study begun on Muni transit operators that became the series of interconnected research projects known collectively as the Muni Health and Safety Study. It represents virtually all black and white men who applied for and/or were working at Muni in that period. A second major survey of the entire transit operator work force was conducted about eight years later in 1993-95. Though no data related to hypertension from that survey have been published, I have been advised by the principal investigator that the hypertension figures look similar to these (Ragland, personal communication 2000). What is significant here is that compared to both a national sample (NHANES II) and a relevant local sample (the

Age group	BLACKS				WHITES		
	Muni	NHANES II*	AHCP**	Pre employment***	Muni	NHANES II*	AHCP**
20-29	29.8	19.8	17.1	19.4	24.0	18.8	0.0
30-39	33.5	31.7	24.4	24.4	34.0	25.9	9.4
40-49	59.7	64.7	53.3	50.0	32.0	34.2	23.8
50-59	78.8	60.0	31.8	38.5	64.2	48.3	50.0
60-64	100/0	69.8	58.3	—	73.3	51.9	60.0

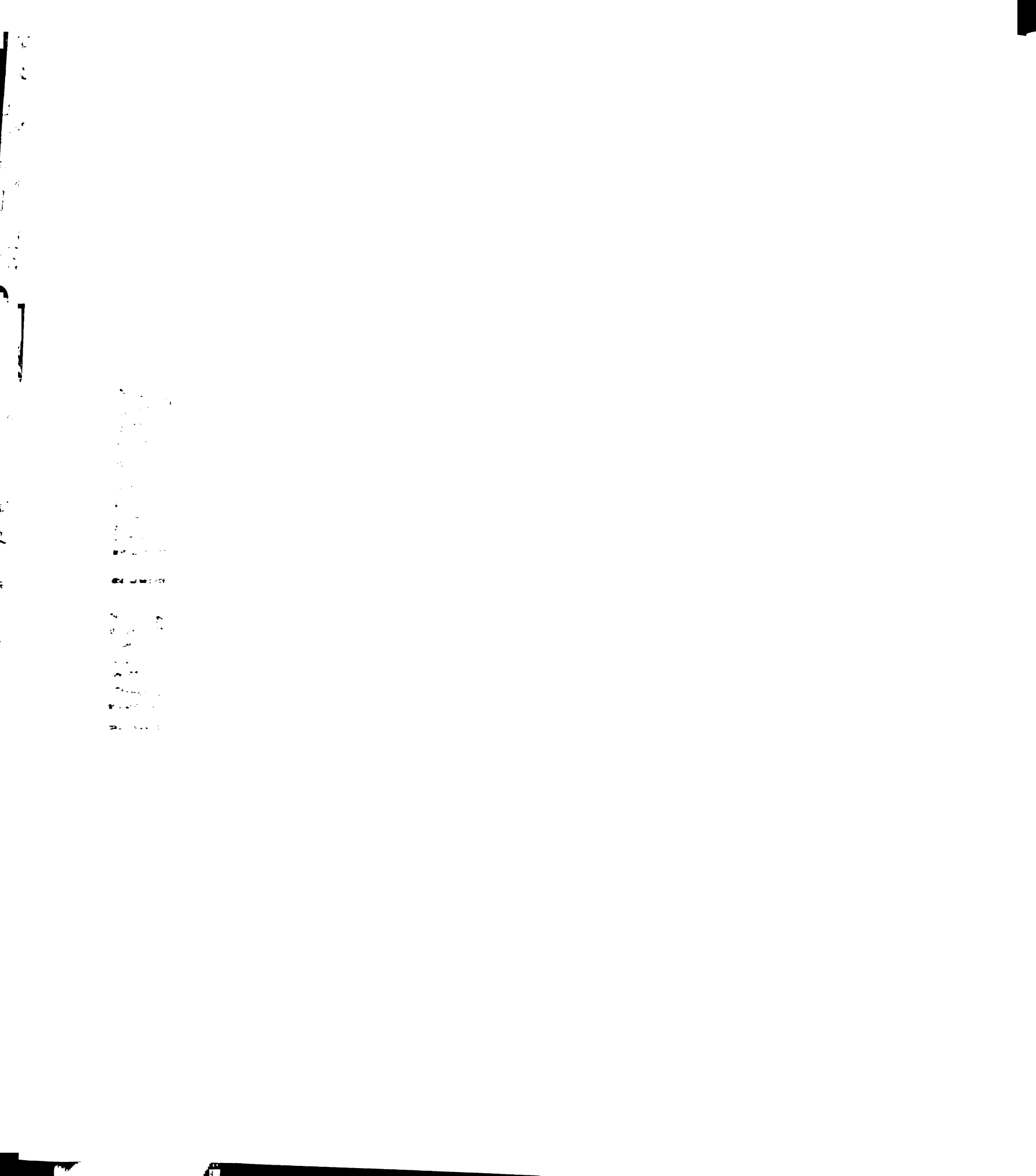
¹Revised from Ragland et al, 1987. Data collected 1983-1985
 *NHANES II = National Health and Nutrition Examination Survey II, a data set collected by the National Center for Health Statistics, 1978-1980
 **AHCP = Alameda County Hypertension Control Program; ethnic distribution within sample is similar to that within Muni, 59% black, 36% white, 5% other
 ***Pre-employment = data from individuals who were applying for jobs as Muni drivers. Very small number of whites in this sample, so comparison can only be made to black Muni drivers.



Alameda Country Hypertension Control Program), Muni transit operators of both races have significantly higher prevalences of hypertension at almost every age group. Researchers offer a number of hypotheses for the dramatic increase in rates of hypertension in the United States, which had been declining prior to this most recent report. The increasing percentage of the U.S. population that is defined as obese has been fingered (New York Times 2004). A higher proportion of the population is aging; this along would increase absolute numbers, with everything else being equal. Finally, Fields et al also suggest that the “higher control-survival burden-paradox” (2004:401) may play a role, that is, greater numbers of people with hypertension under control are living longer, thus increasing the prevalence.

This latter hypothesis is supported by the very good evidence that lowering high blood pressure by any and all means available substantially reduces the risk of damage to the heart, blood vessels, brain or kidney (JNC 7 2003b) primarily, though maybe some others, too]. Therefore efforts to educate the American population regarding the need for regular measurement and control (if necessary) of blood pressure remain intensive. One indicator of this is the over 30 million doctor office visits annually for a principal diagnosis of hypertension (Schappert 1998).

Although the underlying causes for hypertension have not been found, effective measures for lowering blood pressure exist. Prevention efforts have focused on exercise, smoking cessation and weight loss. Once hypertension is diagnosed, health care providers have been advised to redouble their health education efforts for at least three months before placing patients on a drug regimen (JNC VI 1997). Pharmacological choices have



multiplied over the past twenty-five years. The basic types of drug currently available include a variety of diuretics (in this category the thiazides (HCTZ) are the oldest, cheapest and most commonly prescribed), beta blockers, ACE (angiotensin converting enzyme) inhibitors, angiotensin II receptor blockers (ARBs) and calcium channel blockers (CCBs). Each of these works on a different part of the complicated and inter-related physiological systems that have an effect on blood pressure. Within the hypertension research community there is debate (Brookes 2003) over preferred treatment modalities but the mainstream, represented by the National Heart Lung and Blood Institute (NHLBI)-sponsored National High Blood Pressure Education Program (group that is associated with the JNC 7) recommends the following:

Goal blood pressure is defined as <140/90 mmHg for patients without other risk factors. For patients with diabetes or chronic kidney disease, goal blood pressure is <130/80 mmHg. Life style modifications for a period of time not specified in the JNC 7 report, but previously set at three months (JNC VI 1997) are the first line of treatment, followed by the recommendation that if these endeavors fail to reduce blood pressure to the target levels, then drug therapy should be initiated. The specific drug choices depend on other medical indications and contraindications, but for most people with Stage 1 hypertension, the recommendation is to begin with a thiazide-based diuretic with a second drug from one of the other classes to be considered if the thiazide by itself fails to adequately control the blood pressure. For Stage 2 hypertension (blood pressure greater than 160/100 mmHg), a two-drug combination is recommended from the beginning (JNC 7 2003a).

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There are mainstream biomedical researchers who dispute these recommendations, Laragh, mentioned earlier, prominent among them. The dispute rests on the presumed causal mechanisms for high blood pressure, and the research evidence surrounding which drugs are most effective depending on which physiologic cause is deemed most salient in a particular patient. In hypertensives who are salt sensitive (approximately 30-35%), thiazides are appropriate. For patients with increased plasma renin (for which laboratory testing is now available), thiazides are deemed ineffective and drugs that act on the renin system are called for namely, ACE inhibitors, ARBs and beta blockers (Brookes 2003). The reason for dwelling on this point is that anti-hypertensive drugs are not without side effects that can be extremely bothersome to those who must use them. For example, in addition to causing frequent urination until the body adjusts, thiazides raise concerns about erectile dysfunction in men. ACE inhibitors produce a cough in some patients and cause many patients to feel a little woozy, which is why they are often advised to take them before bedtime. In a chronic condition like high blood pressure, where patients will be on these drugs for years, if not the rest of their lives once they begin treatment, these effects are not trivial. Indeed, they are often cited as a major reason for non- or poor adherence to treatment regimens (Schroeder, Fahy, and Ebrahim 2004). Indeed, despite years of attention that both the medical and public health communities have placed on high blood pressure prevention and control, this condition has proven difficult to manage. Of the estimated fifty-nine million adult Americans with hypertension (28.7% of the population 18 years of age and older), 68.9% are aware of their condition. 58.4% of the aware group are receiving treatment (defined as taking

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prescription medication), but only 31% of the treatment group are considered to have their hypertension under control (i.e, blood pressures at or below 140/90) (Hajjar & Kotten 2003).⁹¹ These high numbers of untreated, and treated but uncontrolled cases of hypertension have been extremely troubling to the health care establishment. Researchers in public health and medicine have attempted both to explain and deal with in these phenomena. The result has been a substantial body of work on the medical and psychological factors relevant to this condition and its successful prevention and treatment. While some work has examined social and cultural beliefs and explanatory models very few studies have looked at the practices of people with hypertension in the context of their everyday lives (Blumhagen 1982; Blumhagen 1980; Harmon 1993; Heurtin-Roberts 1988; Heurtin-Roberts and Reisin 1990; Janes 1984; Janes 1986; Littrell 1996; Miewald 1997; Schoenberg 1997; Wilson 1985).

DESCRIPTION OF STUDY POPULATION

In this chapter I will be reporting on exactly this context (the everyday work life) for the twenty transit operators whom I define as my research participants. These are the people I came to know best and in the most depth because of the amount of time I spent with them, both in ethnographic contexts – riding along with them during work shifts, hanging out in the gilley rooms observing interactions in doctors' office and Employee Health – and through extensive interviews, sometimes conducted over several days. Table 5 provides selected demographic data on this group.

⁹¹These numbers are also based on the 1999-2000 NHANES data.

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Table 3 summarizes the gender and racial/ethnic breakdown of my research participants:

TABLE 3 Research Participants by Gender and Race/Ethnicity			
Race/Ethnicity	Men	Women	Total
black	11	5	16
white	3	0	3
filipino	1	0	1
Total	15	5	20

The gender and racial/ethnic distribution of Muni transit operators in 2001 is depicted in Table 4.

TABLE 4 Workforce Composition San Francisco Muni Transit Operators as of 7/1/01			
Race/Ethnicity	Men	Women	Total
black	843	457	1300
white	179	43	222
latino	282	52	334
asian	405	10	415
filipino	187	8	195
Total	1896	570	2466

The gender distribution of my research participants is in general accord with the overall distribution of Muni transit operators (Ragland et al. 1997; Yen, Ragland, Greiner, and Fisher 1999).

The original study design called for only blacks and whites; the inclusion of David Dominguez (pseudonym – see Table 5) was opportunistic. Outside of the research participants, I interacted with transit operators of every race/ethnicity.

This sample contains seven men with diabetes, six black and one filipino. In every case, I found out about this condition months after I had recruited the man. Among people 40-59, the 2002 estimates of diabetes prevalence in the U.S. is 10%. This is another chronic condition where prevalence rates increase with age -- the prevalence among 20-39 year olds is x%, among those 60 and older xx%. Blacks are more likely to have diabetes than whites by a factor of 1.6; filipinos are more likely to have diabetes than whites by a factor of 2 (Centers for Disease Control 2004). Thus, the discovery that seven of my research participants had diabetes is not that out of line with the national epidemiologic data. Diabetics are more likely to also have high blood pressure. The current recommendations for diabetics include ever tighter control of hypertension because of the higher degree of risk of later life cardiovascular complications in later life (JNC 7 2003b). In a sense then, their presence in my sample is fortuitous both because diabetes is also characterized as a "silent" problem, and because they would have an extra reason to want to pay attention to their blood pressure. In short, my research participants represented a stably employed, age-appropriate (given the distribution of hypertension in the general population) group of men and women, "regular Joes and Jills," typical in many ways of the men and women who would ordinarily populate doctors' offices seeking treatment for hypertension. This is not to suggest that the twenty subjects are a

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representative sample of Muni transit operators. They are however, not “extreme” subjects either.

Pseudonym	Sex	Age	Race/Ethnicity	Years at Muni	Years with Hypertension	Other Chronic Health Issues
Thomasine Baptiste	F	50	black	15	4	--
John Boynton	M	59	black	33	25	--
Sonny Cephus	M	57	black	29	19	type 2 diabetes (2 years)
Austin DeLong	M	58	white	10	4	high cholesterol
Jim Diamond	M	57	black	27	> 20	type 2 diabetes (30 years)
David Dominguez	M	60	filipino	21	18	type 2 diabetes (8 years)
Don Drummer	M	60	white	24	14	--
Reggie Jackson	M	43	black	11	< 1	--
Lincoln Johnson	M	55	black	33	11	type 2 diabetes (3 years)
Sylvester Jones	M	55	black	12	1	type 2 diabetes (2 years)
Ann Lightfoot	F	46	black	15	2	--
Brian Manning	M	59	white	27	10	--
Tanya Niles	F	43	black	15	3	--
Natalie Roman	F	54	black	25	> 25	--
Reagan Royce	M	50	black	23	8	type 2 diabetes (8 years)
Gordon Scotch	M	62	black	25	19	--
Manny Scott	M	38	black	12	2	--
Dux Thibodeaux	M	60	black	31	11	--
Queenie Thomas	F	41	black	6	6	--
Mark Williams	M	52	black	25	11	type 2 diabetes (1 year)

GOVERNMENT REGULATION OF COMMERCIAL DRIVERS' HEALTH

All Muni transit operators are required by federal and state law to submit to a biennial physical check-up in order to ensure that they are healthy enough to be able to operate the buses, trains and trolleys in a safe manner (49 CFR 391, Subpart E, revised as of October 1, 1999).⁹²

The medical examination that they and other commercial drivers undergo is commonly called the DOT (for Department of Transportation) or DMV (for Department of Motor Vehicles) exam. As the staff at Employee Health tended to use this latter term, I use too. The Medical Examiner's Certificate that commercial drivers must carry along with their commercial driver's licence is green, and when folded, the approximate size of the license. Therefore it is commonly referred to as the "green card," and sometimes the medical is also called the "green card exam." This Certificate plus the Medical Examination Report for Commercial Driver Fitness Determination (Form DL-51, a four page document) must both be completed (and the DL-51 placed on file at the Department of Motor Vehicles) before an individual can drive commercial vehicles.

The green card exam is a basic history and non-invasive physical covering the items: height, weight, vision, hearing, cardiovascular system including blood pressure (must be below 160/90)and, if necessary an EKG and/or stress test, chest X-ray, urinalysis (checking for specific gravity, albumin, glucose and drug screening). Medical examiners

⁹²The federal law applies to commercial drivers engaged in interstate transportation, but California has adopted the same provisions as the federal government, even specifying that the medical information be reported on the Federal Highway Administration -approved form (California Vehicle Code Paragraph 12517.2).

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2. The second part of the document outlines the various methods and techniques used to collect and analyze data. It highlights the need for consistent and reliable data collection processes to ensure the validity of the results.

3. The third part of the document focuses on the analysis and interpretation of the collected data. It discusses the various statistical and analytical tools used to identify trends, patterns, and correlations in the data.

4. The fourth part of the document discusses the implications and conclusions drawn from the analysis. It highlights the key findings and their potential impact on the organization's operations and decision-making processes.

5. The fifth part of the document provides a summary of the overall findings and recommendations. It emphasizes the need for continuous monitoring and evaluation to ensure the effectiveness of the implemented measures.

have discretionary power to certify fitness in nine of the thirteen conditions specified in the Federal Motor Carriers Safety Regulations, but four conditions are grounds for absolute denial: insulin-dependent diabetes, seizure disorder, significant vision deficits and significant hearing deficits (Pommerenke, Hegmann, and Hartenbaum 1998, Table 3). A review article for physicians who are called upon to do commercial driver medical examinations emphasized right from the start the medico-legal responsibilities of the **physician**, who can be held liable if he or she improperly certifies a driver who later is involved in an accident. The authors write that the examiners' "primary responsibility is to the public -- not, as in the usual office visit, to the patient" (Pommerenke et al 1998). Thus, this patient-provider relationship is fraught with the potential for conflict; the provider is overtly required to act as an agent of the state (Dodier 1998; Rose 2001; Waitzkin 1991).

According to the American College of Occupational and Environmental Medicine, there are over eight million physician office visits for commercial driver medical examinations annually (American College of Occupational and Environmental Medicine 2004). Each state regulates the requirements as to who is certified to perform this examination. Since 1992 in California, physician's assistants, nurse-practitioners and chiropractors have been permitted to perform this exam in addition to allopathic (M.D.) and osteopathic (D.O.) physicians. In the case of the San Francisco Municipal Railway, both the pre-employment health examination and all green card certifications (initial and renewals every two years) are currently the responsibility of the Occupational Health Service/Employee Health Service (OHS/EHS). OHS/EHS is one administrative unit with

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two divisions located at San Francisco General Hospital (SFGH) which performs these exams under contract with the transit operators's union, TWU Local 250-A. Muni transit operators' occupational medical records are maintained there as well. The employee health clinic is staffed with two nurse practitioners and two licensed vocational nurses who also conduct the physicals for new employees of the City and County of San Francisco. The OHS/EHS occupies two floors of an old red brick Victorian building at the periphery of the SFGH campus. The Employee Health Clinic is on the ground floor; upstairs is the Workers Compensation and Disability Clinic which is the first stop for all City and County employees (including Muni transit operators) who are injured on the job. Six DMV exam appointments are slotted into the clinic's daily schedule. During the three months I engaged in participant-observation there I rarely saw all six slots get filled.

Drivers receive notice that they are scheduled for a physical as part of the mail they receive in their outfit every morning. The envelope is long and white so they know that it isn't a notice to come to a passenger service hearing. The appointment has been scheduled by the union rep at his division, his vice chair or chair usually, and the time allocated for it is arranged with the division dispatcher. This is important because it is another aspect of the driver's life that is out from under his control. According to the union contract, operators are allotted three hours to get to the clinic, have their exam and return to work. Depending on time of day, the length of time for exams, from reporting in at the reception desk until leaving the examiner's office could be as little as forty-five minutes or as long as an hour and one-half. Some operators I spoke to (both research participants and others) complained about this being an source of anxiety – whether they

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would get back to work on time – contributing to their blood pressure in the examination room.

The routine for the examination I observed was as follows. An operator entered the waiting room and reported to one of the three receptionists, two latinas and one asian. One of them gave him a sheaf of forms to fill out along with a clipboard and a pen. He settled down into one of the chairs lining all four walls of the sunny waiting room and filled out the form. This usually took anywhere from five to ten minutes. He then returned the forms to the receptionist who then gave him a small plastic cup and asked him for a urine sample. The language was very rote – all three receptionists said the exact same thing to every operator: “We’re going to need a urine sample. Do you remember where the bathroom is from last time? It’s down the hall to the right, up the stairs and you’ll see it right at the top of the stairs. leave the cup behind the aluminum door inside the bathroom and come back downstairs.” When he came back downstairs, he waited anywhere from five to twenty additional minutes before being called in for the rest of the exam by the LVN.⁹³

Blood pressure checks are key in this process. One of my participants, Sonny Cephus, told me that he had come to the Workers Comp and Disability Clinic to be examined for the extreme pain he was experiencing in his foot while operating the bus one day. The pain turned out to be gout, but the health care providers were far more alarmed by his blood pressure, which was greater than 190/110. He was immediately medicated

⁹³Because I was recruiting participants in the waiting room at this stage of observation, I was never able to witness a regular DMV physical, though I did observe a follow-up exam with one of my research participants later in the study.

and not permitted to leave the clinic until his blood pressure came down. Though extreme, this example illustrates the discretionary power that the clinic nurse practitioners have. Operators' green cards can be "pulled" if their blood pressure is above 160/90. This would prevent a transit operator from working, and thus is a strong motivator for already known-to-be hypertensive transit operators to take steps to manage their blood pressure.

More typically, an operator's green card will be certified for only three months if his blood pressure does not go below 160/90 when measured two or three times during a DMV exam. The Employee Health Clinic does not provide primary medical care; the providers refer transit operators to their personal doctors for appropriate health advice and care – operators must return to the clinic within the three month period and demonstrate via certification of a form signed by their doctors that their blood pressure has lowered. They will then be certified for one year, rather than the standard two. When they return for re-certification at the end of that year, if their blood pressure has remained below 160/90, they are returned to the two-year cycle.

Given these stakes and given the preconditions of the work organization described in previous chapters, how do operators manage their hypertension? The rest of this chapter tackles this question. First, I will tell you how my research participants found out about their high blood pressure and discuss their explanations of etiology. Using the case of Reagan Royce, I will offer my theoretical explanation of the sources of motivation to adopt lifestyle changes for the transit operators, followed by a summary of their activities that these operators undertake to get and keep their blood pressure under control, ranging

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from life-style modifications to pharmacologic intervention. I think the data reported on all of my research participants as well as the reports of my more casual informants reveals the limitations of current models of health education and suggests ways to make it better. I will address this issue again in the concluding chapter of the dissertation.

FINDING OUT YOU HAVE HYPERTENSION

Eighteen of the twenty research participants learned they had hypertension within five years after they began working at Muni. In the other two cases, one woman learned this at the pre-employment physical; another had been diagnosed in her late twenties. Twelve operators learned of the diagnosis through Employee Health as part of a regular DMV physical. The remaining six found out from their personal physicians.

Causal Explanations

When I asked operators to tell me what caused their high blood pressure, many of them gave me reasons pertaining to their individual biology or used biomedical explanations for why they thought they didn't really have it. For example, Ann Lightfoot, a 46-year old black woman operator I interviewed, characterized herself as "stone crazy" because she'd "been driving the bus too long" (fifteen years at the time of the interview). She then launched into a litany of complaints and indignities that she routinely suffered on her job, basically related to the sexism of her division's superintendent, the rigidity of management and the pettiness of many of the rules. When I asked her about what she thought caused her hypertension, she blamed it on her weight, estimating that she had

gained thirty pounds over the fourteen years that she'd been working for Muni. She also mentioned her family history, a mother and an aunt with high blood pressure. Even after I specifically raised the question of her job, Ann insisted that what had caused her hypertension was her weight and bad food choices (we were sitting in the Costco eating hotdogs while this conversation was taking place). Ann's blood pressure had been picked up by her personal physician who had put her on a thiazide and an ACE inhibitor, which keep it under control.

By contrast, Reggie Jackson, who was also religiously taking his ACE inhibitors, recounted his doubt about the diagnosis, pointing out that he'd been drinking margaritas in salt-rimmed glasses a few days before his DMV exam and that the salt could have artificially inflated his blood pressure. In addition, he and others mentioned their anxiety about going to the DMV exam. This anxiety was related to the question of whether in fact there was enough time for drivers to get from their relief point⁹⁴ to the Employee Health Clinic and then back to their route after the exam (as mentioned earlier, only three hours are allotted for this). They all correctly pointed out the impact that that kind of hurrying could have on blood pressure. Reagan Royce, who as a diabetic was diligent about taking his medicine, raised the question of white coat hypertension. These doubters raise a point Barker (1994) has made: that behaviors change sooner than beliefs, and that there is no necessary link between them

⁹⁴Relief point is the location along the route where operators meet buses and take over for the driver. This is sometimes at the end of one operator's shift and the beginning of another's; but it also happens when an operator has scheduled an appointment that the dispatcher can calculate into his planning in advance. Relief points are often route terminals, but sometimes they are at major intersections mid-route.

Sometimes in my conversations operators would indicate their awareness of impact of emotions, specifically anger, on their blood pressure. For example, Thomasine Baptiste talked about occasions when she experiences an “outbreak.” She described these as incidents when she was “disrespected” by a passenger or by a representative of the category of Muni employee that she perceived as “management.” This is when she can feel “her pressure begin to rise.” (This remark is similar to Mark Williams's comment quoted in Chapter Four.) Other operators referred me to people whom they thought they had high blood pressure because they “looked like they had it,” that is, they appeared to be irritated or easily provoked all the time. Brian, one of my key informants and an activist on the Health and Safety Committee, told me that he had actually taken the blood pressure of a supervisor “who looked enraged all the time,” and advised her to see her doctor as soon as possible, because her blood pressure had moved into the severe zone (greater than 180/110).

But operators did not mention “job stress” per se as a causal factor in their high blood pressure. At best it emerged as one in a cluster of explanatory variables, for example, in the case where people noted that their blood pressure went down when they weren't driving the buses, either because they were out on disability, on light duty while recovering from an injury, detailed to a special project that didn't involve driving, or retired. This was often summarized in the expression, “I get better when I don't work.” The operators articulated their consciousness of a “folk illness” of “hyper-tension” (Blumhagen 1982; Blumhagen 1980) or “High-pertension” (Heurtin-Roberts 1988; Heurtin-Roberts and Reisin 1990) that was characterized by an emotional response to the

1. The first part of the document discusses the importance of maintaining accurate records of all transactions and activities. It emphasizes that this is crucial for ensuring transparency and accountability in the organization's operations.

2. The second part of the document outlines the various methods and tools used to collect and analyze data. It highlights the need for consistent data collection practices and the use of advanced analytical techniques to derive meaningful insights from the data.

3. The third part of the document focuses on the role of technology in data management and analysis. It discusses how modern software solutions can streamline data collection, storage, and analysis, thereby improving efficiency and accuracy.

4. The fourth part of the document addresses the challenges associated with data management, such as data quality, security, and privacy. It provides strategies to mitigate these risks and ensure that the data remains reliable and secure.

5. The fifth part of the document concludes by summarizing the key findings and recommendations. It stresses the importance of ongoing monitoring and evaluation to ensure that the data management processes remain effective and up-to-date.

multiple pressures of modern life. But this “hyper-tension,” the folk model of high blood pressure, did not link as specifically to the job situation as often as I would have imagined. That is, operators did not tell me that their jobs, *per se*, were the primary cause of their hypertension.

This lack of connection was especially surprising in the operators that I would define as activist, for example, Brian Manning, who as a member of a leftist political group spent much of his spare time organizing on the property and often expressed a sophisticated analysis of the connection between work and health in capitalist economic systems. Job stress was only one (and not even the first) of a set of factors that he listed as causes of his own high blood pressure. I think the reason for this failure to “connect the dots” relates to the occupational habitus, the “cool pose” that operators adopt vis-a-vis their work. When operators talked about how they dealt with the daily hassles of their jobs, they used the language of self-control. Learning to manage one’s emotions, that is, to contain them, is what is critical here.

MOTIVATION

Overall, I found that operators were knowledgeable about their health and had adopted a combination of tactics to control their hypertension, with greater or lesser degrees of success. This flew in the face of what I imagined might be the case prior to beginning my research. One of the most important questions this raised was what had “clicked” for people – what was it that had motivated them to adopt new behaviors. In some ways, this is the very heart of the reason for the study – if it were possible to

understand the reasons why people do the things they do, it might be possible to duplicate those reasons in other contexts, thus applying the insights so painstakingly acquired.

Thinking hard about the following exchange I had with Reagan Royce, a 59-year old black operator with diabetes and hypertension, was the beginning of a "click" moment in my analysis. Reagan had been telling me how resistant he had been to the idea that he would have to eat differently, if he wanted to preserve his health, in that first year after he learned he had diabetes. I asked him what changed and he replied:

What changed? I'll tell you what changed. One day I was in an all-you-can-eat Chinese restaurant on Market Street. I used to go there quite often. I used to have a two-hour split, two and a half hour, three hour split. More time for me to eat and abuse myself. I used to go there all the time. Loved that place. Had mu shu, shrimp, oh lord! Yes! Eat all you want. I'm in there one day, operator comes in, I recognize her, I had met her some years ago, I don't really know her. She comes in, an older woman, and she says, "hello, operator." Now I'm sittin' there at this table, I got three plates of food in front of me, like there ain't gonna be no more, or maybe that was gonna be the last supper. [He laughs]. She says, "how you doing?" Now I ain't paying her no attention because uh, I'm handlin' my business, you know? And I'm looking at her like, you know, "what the hell you want?" And she says, "Do you think I could have a seat? Sit with you?" I put my utensils down, and I say, "What the hell do you want?" She says, "Uh, I just wanted to know if I could join you?" Real nice, older woman, real sweet, "Can I, can I sit with you?" I said, "Yeah, if you can find some room, yeah, have a seat. Sit anywhere, here have a seat." I'm ignoring her. But you know, and she and I are the best of friends today. I mean, tight. You know why?

Bev: Why?

Reagan: She saved my life. She said, "When I came in here I looked back and I saw you and the way you were eating, you were eating fast. And sweating. All of this food. I said to myself, "That operator's got a serious problem." And then she said, "It was like almighty God directed me back there to make it known to you that someone needed to care for you. Care about you. Because apparently you didn't care about yourself." And by saying that, uh, the light bulb goes off. Saved my life.

This is a dramatic example of a process that occurred frequently among the drivers I talked to. Their connections to others in their world, be they spouse, grandchild, fellow operator, even health care provider in a relationship mode, were more important as a source of motivation than anything else they told me. The story of “what clicked” for them could be understood as **socially generated. That is, it was the influence of at least one fellow human being, and in most cases more than one, that started making the difference for them in either choosing to adopt a new behavior or choosing to continue with a new behavior or change an old habit.**

This observation caused me to think about the “rational actor” assumptions of many of the health behavior models that have emerged in the public health literature (Brown and Segal 1996; Greenfield, Borkan, and Yodfat 1987; Strecher and Rosenstock 1997). These have already been vigorously criticized by many in the medical anthropology community (Bloor 1995; Brodwin 1997). These bring to mind Bourdieu’s critique of the rational actor model found in philosophy. He made an important observation about the assumptions behind the rational actor model, assumptions about the primacy of reason as expressed through the terms “will” or “consciousness” as the basis for human action in the first place. Bourdieu used a quote from Pascal to make his point:

For we must make no mistake about ourselves: we are as much automaton as mind. As a result demonstration is not the only instrument for convincing us. How few things can be demonstrated! Proofs only convince the mind; habit provides the strongest proofs and those that are the most believed. (Pascal quoted in Bourdieu 1990:48).

Though he criticized Pascal a few paragraphs later because Pascal accorded a primacy to that initial decision to embark upon the habit [of prayer] that will sustain and

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develop belief [in God], still, he commends this recognition of the "non-rational" basis for human behavior. Nonrational does not mean irrational, I rush to say. It just suggests that many if not most things that people do are predicated on a different basis than reason and further, that failing to take that basis into account when attempting to analyze, explain and even change human behavior will leave significant gaps. But the one additional point I want to make here before I move on is that North American, Western cultural traditions have valorized the idea of reason, rationality and its associated notions of free will and independent thinking such that it forms an ideological or hegemonic backdrop for the ways that human beings interpret their own behavior (Hochschild 1983:57-59; Becker 1997). That is, these are cultural rules for thinking about what one does and how one feels that are so deeply imbedded that they are taken for granted and it makes it all the more difficult to accept the validity of the nonrational when it is proposed. This is central to my argument is establishing a connection between the emotional basis of human action and the social basis of the emotions or feelings.

This realization offers clues for developing more effective interventions to improve transit operators' health. But before I "go there" I want to describe the evidence for my assertion that once operators are motivated, they manage their hypertension more conscientiously than previously assumed. I do this in the next section by presenting summary information on their everyday practices.

EVERYDAY PRACTICES

This section summarizes the practices that my research participants adopted to try to control their high blood pressure. Most of the operators in my core group were serious about wanting to manage their high blood pressure. They uniformly were aware of its long term consequences and many of them reported a family member or friend who had had a stroke and died or been severely disabled. So what sort of things did they actually do?

Hypertension management recommendations conventionally fall into two major categories: lifestyle modifications and medication. The commonly prescribed lifestyle modifications are: smoking cessation, drinking modification, dietary changes, exercise, and “stress management.” The operators in my study group each adopted an assortment of these activities to try to manage their hypertension, which I will summarize below.

Smoking Cessation. Only five of my participants were current smokers. That number increases to six if I include Thomasine who was trying to quit at the time of our most concentrated interactions. Two of the remaining fourteen had never smoked, but twelve had quit. For five of those who had quit, I was able to determine that they quit after they had initially been made aware of their hypertension, but the other seven had actually quit before the diagnosis. Those who did quit **after** learning of their hypertension made themselves very clear on this point. For example, Don, one of the few operators who was very determined to control his blood pressure without the use of medications said, “I quit after one of them high blood pressure things.” He meant after one of his

green card exams at Employee Health when the staff alerted him that his blood pressure was creeping up and only certified him for three months.

Another one of my inner circle of operators and one who had quit smoking before his high blood pressure diagnosis told me that he quit “when [he] came to Muni.” He left the impression that he had clearly done this for health reasons, though the negative side effect for him, between the combined effects of quitting smoking and a much more sedentary job [he had worked in a car wash before] was a substantial (one hundred pound) weight gain, which he had struggled with ever since.

Though smoking was not a health behavior that changed a lot as a result of a high blood pressure diagnosis, it is valid to point out that better than 2/3 of my study population did not smoke.

Drinking Modification. Alcohol consumption in moderation (two drinks a day for men, one drink a day for women is an acceptable health practice; higher levels of consumption have been found to be associated with higher rates of hypertension and a variety of other negative health consequences (JNC 7 2003b). Sixteen of my core group of subjects were current drinkers. No one reported having been advised to stop drinking because of high blood pressure (though one operator was admonished by his physician, in my presence, about his incipient alcoholism, which he dismissed as “over the top” shortly after the doctor visit was over) but some of those who were still drinking reported moderating their drinking because of a growing awareness of it as a health risk.

Most operators described their drinking as moderate/light using the number of drinks/day measure that the health authorities now use. Four described themselves as

heavy drinkers, recounting an occasional celebratory binge. I really didn't see much evidence that people had changed their behavior with regard to drinking as a result of hypertension. The combination of random urine tests combined with "scares" had been mentioned most frequently as the things that motivated operators to adjust their alcohol consumption behaviors.

Dietary Changes. This category really comprises two domains: 1) modifications in the types of food choices and 2) a conscientious/conscious/successful effort to lose weight. These two arenas overlapped. Eleven operators talked about efforts to modify their food choices. Generally these efforts included one or more of the following: reducing or eliminating added salt from one's diet, not eating pork or reducing the amount of pork in one's diet and/or "not eating a lot of meat." The not eating pork or meat was uniformly brought up by the African American operators and may reflect the common folk belief that "too much meat is bad for you" as well as the commonly expressed etiologic observation that pork causes one to get hypertension in the first place [Bailey 1991]. This was an arena where occasionally one got to see the break between words and behavior. For example, Thomasine expressed surprise at her hypertension diagnosis because she didn't eat a lot of meat like her mother and her aunts did. But I went on several ride-alongs with her and the waitress up at the Seal Rock Inn recognized her whenever we arrived there for our morning break and recited her regular order for her before we had even opened our mouths: "four slices of bacon and two slices of white toast, right?" Similarly, Ann had mentioned modification of her food choices, but when we went out to lunch, we went to Costco expressly for the hot dogs. These examples are not cited as

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“gotchas,” nor are they raised as “evidence” of a consistent disconnect between self-report and behavior but rather as evidence of how really hard it is to do this sort of thing without help.

In the weight control/diet arena, eleven operators told me about their (successful) efforts to lose weight. For example, Natalie Roman was going to Weight Watchers at the time I interviewed her. She looked fit and attractive when we met at Kaiser for me to witness a blood pressure check and she told me that she'd lost about twenty pounds and had returned to her previously regular exercise habit. She described the typical meals she was now providing for herself and her son: cereal and fruit for breakfast, a big salad with turkey or other low fat meat with no fat dressing for lunch, and Lean Cuisine with a low-fat soup and/or salad for dinner. She told me she had been overweight since she was a child and that she was almost always worried about her weight, but that she "wasn't going to deprive herself." On Sunday, "weigh-in day," after weighing herself, she gave herself permission to eat whatever she wanted, smiling mischievously as she recalled the popcorn with butter she'd had at the movies the previous weekend.

The diabetics also had good medical reasons to modify their eating and/or lose weight. For example, Jim Diamond, a union board member, learned he had diabetes in his late twenties. Diamond was a tall trim and fit looking man, a handsome pecan-brown color with shining dark eyes and a wry smile. Having been a diabetic for more than 25 years at the time I met him, he had created order in this aspect of his life by placing himself under the solicitous care of his wife and mother (both nurses) who took care of all of his food needs and whose choices he fully abided by.

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His father had also been a diabetic who

didn't take care of himself ... he'd sneak behind my mother's back. She would fix his meals properly. But he was from the old school – you had to burn the schoolhouse down to get him out of seventh grade ... he raised six kids. And I'm still wondering how he done it. He was a good hustler and a good manager...

Jim admired his father's moxie – he used “hustle” here in the sense of a “determined and hard working” – as in the sense of Pete Rose on the baseball field: “Charlie Hustle.” But he contrasted his father's attitudes toward self-care with his own. It is because his father was from the “old school” (not very educated, macho – not wanting to “obey a woman,” thinking only “sissies” worried about their health) that he sneaked behind his wife's back and went drinking with his buddies. Diamond's father died as a fairly young man due to complications of diabetes, something that Diamond did not want to happen to him.

Because Jim had painful memories of the suffering and hard work his mother endured for eight years as his father lay dying from the consequences of failing to take care of himself, and because, as the only boy with five sisters in the center of a loving family, he was used to the well-intentioned attention of women, Jim was willing to go along with the food plans laid out by his wife and mother.

In the interstices of the interview some other information was revealed. Soon after Diamond's diabetes was diagnosed, he began to see a doctor at Kaiser who also had diabetes. His doctor said, “Mr. Diamond, there's nothing wrong with you – you're just a diabetic.” His doctor makes the diabetes manageable by making it something that he can

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handle, sharing his own experience with diabetes. Again the social connection is paramount here.

Jim was not rigid with the way he approached food. He allowed himself occasional treats as long as he monitored his blood sugar regularly. Like Natalie, there was a limit to the rigidity. Jim told me he had a piece of candy the night before our interview – he was thinking about it, it was on his mind, but he believed that managing his diabetes was his to succeed at or fail, and his alone:

I'm gonna tell you something about this diet and controlling stuff. It's here [points right index finger to his temple]. You have to make **your** mind up. I don't care what the doctors, nurses or anybody, the nurse-practitioners ... you have to make up your mind. Do you want to live? And I got examples all around me. Hey, I've got the program if I want to live. I look at my mother – 80-something years old. I hope I get to 75.

Jim's comments elucidate the mix of the personal and the social in his efforts to control his eating for his diabetes. He draws on the metaphors that inform his gender and his sense of himself as an American black man – a version of rugged individualism, while at the same time connecting himself with "examples all around him" – his doctor, his mother, his father – whose experiences and practices help him to define his own. At a later point in the interview this same philosophy emerges with race as an additional variable. Jim is describing an occasion when he was over-prescribed a certain hypertension medication. He quotes his wife's observation that a lot of people don't even look at their medicine and contrasts this with his own practices: "Look at your medicine, ask questions about it. As a black race we take everything for granted that the all-American white boy gives you" (the implication here being that we should do a better job of "questioning authority."

Exercise

Ten operators told me they engaged in some form of exercise. This ranged from taking a walk after work (John Boynton and Mark Williams) to walking one's cherished dog regularly (Dux Thibodeaux and Jim Diamond) to the more systematic gym-going of Natalie Roman and Ann Lightfoot. Everyone who did exercise regularly told me there were times when they dropped the habit and then picked it back up. The diabetics in the group were more likely to have adopted exercise as a regular habit. Lack of time was cited as the major reasons why exercise was not a regular part of their lives; musculoskeletal problems were also a deterrent to regular exercise. The conclusion of this chapter includes comments from Brian on his efforts to motivate himself to exercise regularly.

Stress Management

People told me about a variety of "calming down techniques" they employed, suggesting that they were doing a form of "emotion work" (Hochschild 1983). Austin Delong, active in his church, underlined the importance for him of regular prayer -- an active engagement of himself as a spiritual being. Others described stress management classes they had taken at Kaiser or elsewhere. Don Drummer was an avid practitioner of yoga. In sum, seven of my participants described some form of this behavior.

Hypertension Drugs

Five participants took no medication. They told me their blood pressure was controlled with life-style modifications. The remainder took drugs, most commonly either HCTZ and an ACE inhibitor or an ACE inhibitor alone.

OUTCOMES

In summary, the operators that participated in my research in-depth over the eighteen months of my study were making out as best they could (with regard to controlling their hypertension), given the constraints of their jobs and their lives. All were knowledgeable about the multiple causes and consequences of hypertension and most were endeavoring to change some aspects of their personal behavior in order to deal with this. Many had changed their diets, many had already lost weight even if they were still “overweight” by the standards of the medical establishment. Many had incorporated some form of exercise into their lives, ranging from swimming to walking to yoga. Some had even attempted the “stress management” techniques they had learned in a formal class – either their own company’s Ambassador Program, or a wellness class offered by their health care provider. The diabetics in the group were particularly aware and thoughtful about monitoring their glucose and to a man reported a high degree of attentiveness to the regulation of their bodies. Fifteen out of twenty reported taking some kind of anti-hypertensive medication, “going on the pill,” as one of the women operators described it.

Their collective efforts result in blood pressures that cluster around the high average range: something less than 140/90 but more than 130/85. These numbers are well below the DMV standard of 160/90 but depending upon the entity doing the defining – the high blood pressure research establishment or their family doctor – this blood pressure might or might not be considered “under control.”

Target goals for blood pressure. Operators are most knowledgeable about the DMV cut off for high blood pressure: 160/90. This cut off is confusing because its systolic cut-off point is at the beginning of what the hypertension establishment until very

recently defined moderate hypertension (BP > 160/100), but the diastolic measure is at the beginning of what would be defined as mild hypertension (BP >140/90). No wonder there is confusion as to whether or not their blood pressures are under control. For the fourteen operators who could report their most recent blood pressures, the results, ranked from lowest to highest, are found in Table 6.

Table 6 - Research Participants' Blood Pressures from Low to High

<u>by Diastolic Pressure</u>		<u>by Systolic Pressure</u>	
BP	Name	BP	Name
118/76	Diamond	118/76	Diamond
140/80	Dominguez	126/82	Delong
140/80	Royce	126/86	Smith
150/80	Scotch	128/80	Johnson
158/81	Roman	130/81	Jackson
130/81	Jackson	138/90	Drummer
126/82	Delong	140/80	Dominguez
126/86	Smith	140/80	Royce
142/86	Boynton	140/90	Williams
128/88	Johnson	142/86	Boynton
138/90	Drummer	144/90	Jones
140/90	Williams	144/90	Manning
144/90	Manning	150/80	Scotch
144/90	Jones	158/80	Roman

These figures, although acceptable to the DMV are disappointing as a report of the bottom line, for they tell us that, based on a strict cut off -- systolic **below 140 and diastolic below 90** (JNC 7 2003a)-- only 5 of the 20 men and women who comprised my study population have their high blood pressure under control. In this regard, they are similar to the population at large (Kaplan 1998), but I might have predicted -- and certainly

hoped for – much better numbers from this group since both they and their doctors are aware of the importance of maintaining control over their blood pressure because of the DMV consequences.

It is important to distinguish between process and outcome measures for control of hypertension, because even though my operators were relatively adherent, their blood pressures weren't all that consistently under the benchmark for hypertension, 140/90. *Process is about management; outcome is about control.* If the only way researchers define people as adherent to hypertension treatment is by basing it on their blood pressure, then one misses all the other efforts that they are actually making and loses the possibility, of reinforcing and supporting these efforts at healthy behavior, which over a longer run, would likely result in improved blood pressure readings, too (Lorig 2002).

What explains the discrepancy? Well, certainly one explanation is the disconnect between the DMV measure of high blood pressure and the hypertension establishment's definition, as previously discussed. But beyond this, the usual explanations of the public health establishment for lack of control do not hold water. These explanations are: ignorance, non-compliance, not making life-style changes, and not practicing other things that might be beneficial to lowering blood pressure. In fact, my results suggest that the really important place to look for a crack within which to place the wedge that motivates people to change is not in the space between knowledge and practice (doctors have messages, patients have lives) but in the space between personal motivation and social environmental support. The story that my data tells me is that operators are trying and being somewhat successful, in one or more activities that in conjunction, would likely lead

to lowered blood pressures. The point is not to lambaste them for the things they don't do, the point is to provide greater support for the things that they do.

CONCLUSION

Looking at this group as typifying, in many ways, the behaviors of people who are trying to be attentive to one kind of chronic health problem or another, I think that the focus should be placed on the fact of their strengths – the fact that they were engaging, to a greater or lesser degree of success, by and large, in a variety of tactics employed to accomplish the goal of lowering their blood pressure. They used the individualistic ideology of our culture to express themselves in words but their behavior told a story of practices of self-making full of agency.

For example, Mark talks about the pride he takes in his work and his desire to do a thing well. He mentions how even in his major recreational activity, fishing, he likes to place his line “just so.” Mark is very conscious of the need to control his high blood pressure because he also has diabetes, so he monitors both very closely on a daily basis, and keeps careful track of the food that he eats. He also talks about his home high blood pressure monitor which he uses to keep track of his blood pressure, but he mainly talks about the need to control his own emotions as the best way to keep his blood pressure down. The operators who were concerned about managing their blood pressure and who were obviously engaged in more than lip service to this notion spoke with what I would describe as the language of “rugged individualism.” Two operators whose fathers had died of strokes and who were themselves both diabetic and hypertensive talked about their fathers “not taking care of themselves” using almost identical language in both instances.

They both contrasted their fathers' behavior with their own meticulous attention to their bodies.

Even Brian, the activist mentioned earlier, did not conceptualize the management of his high blood pressure in terms of changing the workplace, but rather in terms of changing himself. When Brian talked abstractly about other people on the job and the whole working yourself to death thing, he articulated a more social frame of reference – the need for a living wage, a reasonable work schedule, and a sense of a community that should do something to stop the onslaught of unreasonableness that he believes runs the lives of operators. But when he talked about himself and his efforts to regularly exercise, the images shifted:

This is where I want to be in two years. I want to be 25 pounds lighter and I want to be on this level of being healthy. And therefore if I start to lose it [the practice of exercising regularly] here, I'll pick it up. I'll get back into it. What I got to recognize is that there is not this linear ... and I'm going to go three days a week and unflinchingly just three days a week, three days a week, three days a week....

Operators have embodied a way of coping with their health problem that is characteristically "American." Despite an awareness of the working conditions that lead to high blood pressure and a sophisticated understanding of the causes of high blood pressure, operators define their coping strategies as personal, as up to them as individuals. They have no expectation that their union, despite its avowed support for the many research studies of Muni operators and the conclusions of those studies that support changes in the work place, will take up the banner in any meaningful way to change the working conditions that they face. So it is easier then, to focus on the conditions that they feel they do have control over, their personal selves. In Chapter Six, we revisit this

CHAPTER SIX

MISSED CONNECTIONS: OCCUPATIONAL HEALTH AND HYPERTENSION AT MUNI

**The irony is, we've been reporting this stuff for a long time.
It's hard to believe that things are going to change.
– Health and Safety Committee member, June 2000**

**However simple the change, really it takes a lot of political
maneuvering to get it done.”
– Union official interview, December 2001**

In this chapter the focus shifts back to the larger structure of which transit operators are a part. It describes how transit operator hypertension, best understood through the job strain model as an occupational health concern, has been discursively transformed into a personal health problem. Power relations between the union leadership, Muni management, and the rank and file union members are foregrounded here. The question of power is refracted through the lens focusing on the efforts of management and the union to address the high prevalence of hypertension revealed in the findings of the Muni Health and Safety Project. Complementary and competing interests reveal the complex and shifting nature of these relations. The voices of the rank and file — “the Union is Muni!” — did not always harmonize with those of the union leadership — but the union leadership’s and management’s duets were similarly discordant.

Towards the end of my data collection I felt compelled to ask why, after almost twenty-five years of cooperation on the part of the transit agency and the union with the epidemiologists and physicians who have been conducting research on transit operators, so little had been done to change their work conditions, especially given the compelling evidence that was and is available on the relationship between these conditions and one of

their biggest health problems. Analysis of interviews with some of the union leaders and some upper level managers in the agency and the ethnographic observations of the “wellness” offerings the transit agency provided for the operators during the time of my field research underlined the disconnect between the epidemiologic evidence, statements of concern by higher-ups, intervention efforts, and operators’ actual work lives.

My study population, including not only the twenty research participants, but also the much larger group of the more casual informants, were by and large a sophisticated group of players in the field of mass transit in San Francisco – several held leadership positions within the union, others were on important committees (notably Health and Safety, and Education), and many were regular attenders at division and/or general union meetings. They had many years of work experience at Muni (within the smaller group of my research participants the range was six to thirty-three years, with a median length of service of twenty-three and one-half years. Relatively speaking, they had an intricately webbed social network on their jobs. They both understood and knew how to work the relations of power within the organization to their advantage. But these connections and advantages did not translate into meaningful organizational change, despite their high degree of awareness and in some cases, activism related to the occupational roots of their health problems.

This chapter does not comprehensively address the question of “why.” A thorough answer to that question would have been a different project, one that looked more directly at the institution from an organizational perspective. Nonetheless, I have collected enough data to provide part of the answer here. The chapter will catalogue

some of the structural constraints to change within Muni focusing on the central and vexing question of “fixing the schedule.”

After presenting background on the public health research that Muni transit operators have been a part of for so long, I describe two efforts at structural intervention – the cable car experiment and the 22 line experiment. These institutional efforts to change the work organization illustrate all too painfully the basic reality of life working at the Railway and help to explain the indifference with which my subjects, even those who were union leaders, approach the idea of organizational change as a practical means for reducing the high rates of hypertension among Muni transit operators. The 22 line experiment was an early phase of the Ambassador Program which, at the time I was doing my research, was being touted to the operators as a serious effort on the part of Muni Improvement Fund (more on this later) to address their problems. In my view, the Ambassador Program was a primary vehicle for “normalizing” and “individualizing” the operators’ job strain – an occupational health hazard – in an effort to deflect attention away from the failure to address the concrete reality of a badly outdated schedule. Ethnographic evidence support this claim. Finally, I supply counter-evidence – the cracks in the monolithic structural argument – of structural change in other areas in the organization. This is change of an incremental variety, frustratingly slow, given the urgency of the problems I have outlined, but perhaps a hopeful sign.

HISTORY/BACKGROUND

In 1978, June Fisher, a young doctor who had been on the research faculty of Stanford Medical School, became the first medical director of the OHS/EHS Clinic at San

Francisco General Hospital. One major task of the clinic was to perform pre-employment and DMV medical exams for transit operators; the union had wanted to centralize these and had contracted with SFGH to perform this service. Dr. Fisher's mentor had been Bertil Gardell, an important figure in the research field of occupational health and work who was also a mentor to Karasek and Theorell, the originators of the job strain model discussed in Chapter Four. Dr. Fisher's shoe leather epidemiology was picking up unusually high numbers of cases of hypertension among the transit operators who reported to the clinic for their biennial health exam for department of motor vehicles certification. She was aware of the Morris study which first brought to light the disparity in cardiovascular disease rates between London Transport drivers who sat all day and the conductors whose jobs required them to walk about collecting fares (Morris et al. 1953a; Morris, Kagan, Pattison, Gardner, and Raffle 1966; Morris et al. 1953b). She wondered whether the sedentary nature of the work of the bus drivers in her charge might contribute to their high rates of hypertension and indeed, what other variables might be part of this as well. Her investigative mentality led to the collection of epidemiologic data from the clinic's earliest days. She had a graduate student culling data that was accumulating in patient charts. She also negotiated a longer time – an hour – to do the DMV medical exam so that there would be plenty of time for patient education.

Dr. Fisher contacted S. Leonard Syme, a professor of social epidemiology at University of California, Berkeley School of Public Health. He and his postdoctoral student, David Ragland, were soon involved with her in launching an ambitious research program in collaboration with the Transport Workers Union Local 250-A. This project became known as “the Stress and Hypertension Study” (Fisher, Greiner, Ragland, and

Krause 1996:1). Early funding sources included the Urban Mass Transit Administration and the U.S. Department of Transportation; later sources have include the National Institute of Occupational Safety and Health (NIOSH), the National Heart, Lung and Blood Institute (NHLBI), the National Institute of Alcohol Abuse and Alcoholism (NIAAA), the California Heart Association, the American Automobile Association (AAA) Research Foundation, the Institute for Transportation Studies, UC Berkeley, the Alcoholic Beverage Medical Research Foundation and the SF Municipal Railway Transit Fund (Fisher et al. 1996:3)

There are several things that this degree of research support reveals. First, it demonstrates the length of time that Muni operators have been “research subjects.” The study design involved the participation of practically every member of the active workforce of Muni during the initial period of data collection (1983-85); most of the long-time drivers I encountered were familiar with Berkeley and “the stress study.” Second, it demonstrates the continuing commitment to the research shown by Muni management and the union. Since the cost to the agency is minimal, it isn’t hard to see management’s acquiescence as an easy concession to make. The reasons for such commitment from the union are just as obvious. The Transport Workers Union has a long history of engagement with workers’ health issues, going back to the time of its founder, Mike Quill. For example, in 1939, Quill was central in the establishment of a free medical plan for transit workers in New York City – this being part of the effort of that local to address some of the health consequences of the working conditions at the time (Freeman 1989:13-14). Historically, health concerns have had pride of place in union activism, and the TWU has continued this tradition into the present (see for example, the cover photo of the

American Journal of Public Health, April 2003, depicting TWU Local 100 workers protesting the threatened loss of their health benefits, and accompanying editorial (Quinn 2003)).

Scientific evidence of health problems related to working conditions becomes a bargaining chip, a bit of political capital to be strategically deployed in contract negotiations, for example. Indeed, the Ambassador Program emerged but not quickly or easily from just such a context. Two dry paragraphs in the 1996-200 Memorandum of Understanding (M.O.U., i.e., the contract between the City and the Union), repeated with minor alteration in the 2000-2004 M.O.U., hide the years of political maneuvering it took to get them included. A very senior union official told me that the Ambassador Program was a direct outgrowth of efforts to implement changes in the work environment that might affect operators' health. He observed that it was after receiving reports from the 'stress study' that "we then started trying to look at how we are going to address some of those things. And in our contract and in our everyday working process – a lot of years to try to push and get management to try to deal with some of those things." The question is, what is the relationship between "stress" as a bargaining chip and real change in operators' work lives. Let's turn to some recent examples of efforts to change working conditions to find an answer to this question.

STRUCTURAL INTERVENTIONS

Fixing the Schedule I - The Cable Car Experiment

From the late 1980s onward an abundance of research data from the Hypertension and Stress study at Muni as well as other research studies elsewhere has revealed that the

two biggest sources of stress for drivers are the schedule and the threat of violence (Carrere, Evans, Palsane, and Rivas 1991; Evans and Johansson 1998; Evans, Johansson, and Rydstedt 1999; Greiner 1997; Kompier 1996; Ragland et al. 1998). The Muni schedule had not been comprehensively updated in years and failed to factor in the current traffic and ridership patterns in the City. Indeed, in my own conversations with almost every transit operator I spoke to, the schedule was singled out as one of the most frustrating aspects of work and my field observations during my ride alongs with transit operators bore out these concerns.

Acknowledging the deficiencies in the schedule, in the late 1980s the union and management agreed to try an unusual experiment, allowing the cable car drivers to create their own schedules, based on their “on the ground” knowledge. This experiment was significant because from all reports it appeared to have included more than token input from the gripmen and conductors who run the cable cars. Cable cars had been operating on an arduous “turn and burn” system. When a team of operators got to the end of the line, they had to physically turn the cable car by positioning it on a piece of track that was on a round rotating platform (like a lazy susan) and then pushing the car sitting in that bit of track 180 degrees so that the front end faced the proper direction for the return trip. No time was allowed at either end of the trip for “recovery” and “rest” (or layover) time, two of the three “Rs” of transit scheduling considerations. The third is **running time**, the time that it takes a bus to make a trip from one terminal of the route to the other, taking into account traffic and passenger load at various times during the day. **Recovery time** means **schedule** recovery time, that is, the leeway calculated into the schedule to account

for unforeseen delays during a given trip. **Rest or layover time** is for the operator, that is, the time allowed for taking a short break, standing and stretching, using the restroom, etc. that is calculated into the schedule. This is the most expendable time element in a schedule from the standpoint of a transit agency. In addition, a transit supervisor was stationed at each end of the line to see to it that the gripmen and conductors adhered to the published six minutes of headway between cable car departures.

This system had taken a high toll: the Cable Division led the agency in absenteeism and workers compensation claims (approximately one-third of all claims at the time) – of particular note given the small number of operators who work in this Division (approximately 100). In addition to the previously discussed effect of job strain on blood pressure, cable car crews were also subject to musculo-skeletal problems related to the turning around of the car at the terminal points and the generally higher degree of physicality required for the job, leading to a greater degree of wear and tear on their bodies (Ragland et al. 1998; Winkleby et al. 1988a).

The experiment allowed for a more flexible approach to headway. Senior cable car operators (termed “expeditors”) were assigned responsibility for making the judgment of when to send out the next car, with the agreement that the operators would have twelve minutes of rest time **guaranteed** at the end of a run. This plan “virtually eliminated the need for a transit inspector as a policeman to the working crews because it gave them [the operating crews] a form of job latitude that is unprecedented in the transit industry [in the U.S.],” the union president reported at an international conference on transit safety in 1991 (Antonio 1991). This experiment modeled the kind of activities to restructure work organization taking place in Sweden and other northern European countries which were

taking very seriously the research on job strain by Karasek and Theorell (Ala-Mursula, Vahtera, Kivimaki, Kevin, and Pentti 2002; Evans, Johansson, and Rydstedt 1999; Gardell 1977; Gardell and Gustavsen 1980; Johanning, Landsbergis, Geissler, and Karazmann 1996; Karasek and Theorell 1990; Kivimaki, Leino-Arjas, Luukkonen, Riihimaki, Vahtera, and Kirjonen 2002; Schnall, Landsbergis, and Baker 1994).

Three of my subjects were cable car operators and had been so at the time of the experiment. I specifically asked two of the three about this scheduling experiment during my extensive interviews with them. Surprisingly, neither of them had any recollection of this scheduling experiment, nor did they speak of any noticeable change in the morale of the cable car division while this experiment was going on.

The conclusion of the story of the cable car experiment as told to me in an interview with the union official who presented the speech at the Transit Hot Seat Convention in 1991 was revealing. Despite the reported success of the experiment using senior operators who “knew how to operate,” the knowledge developed and employed by the expeditors was not transferred to the next generation of operators, nor incorporated into the regular training. The experiment, which at its heart was an experiment in job latitude – letting those closest to operations have some control over the nature of the operations – fizzled out after two or three years (Karasek and Theorell 1990).

Fixing the Schedule II - The 22 Line Experiment

The 22 line experiment was an early effort of what became known as the Ambassador Program. For narrative clarity I leave off the Ambassador Program label here, and explain the Ambassador Program (and one of its components, the Ambassador

Training Program) in the subsequent section. Suffice it to say, this was an ambitious effort begun in the late 1990's to change structural features in the work organization for transit operators. The 22 line experiment was touted as an effort to support operators, "so that they can be ambassadors"⁹⁵ for Muni out on the streets of the city.

The 22-Fillmore line was selected for this intervention because it was thought that its problems, while significant, did not threaten to overwhelm the effort to fix them. It was a major line, one of the electric trolley bus lines operating out of the Potrero Division. It intersected with several other major lines in both the east-west and north-south directions, including the 38-Geary, the 1-California, all of the light rail lines (J, K, L, M, and N), the F- Market – the antique trolley line, newly beloved by tourists and locals traveling between the Castro District and Fishermen's Wharf, and the 14-Mission, the longest trolley bus line in the city (7.8 miles). Its problems included difficulties with traffic, especially double-parked delivery trucks in the trendy shopping district of the upper Fillmore. For a trolley bus, where the ability to get around stationary obstacles is limited by the length of the poles connecting it to its overhead power source, an obstruction in the traffic lane is not trivial. In addition, that line had two middle schools and one high school along its route, and there had been problems with behavior of the school kids who rode morning and evening. The 22- Fillmore was an ideal test case, in short, because it was a major line, but, as a union official told me, not the biggest of them all. The problems it faced seemed solvable and the lessons learned applicable to other lines.

⁹⁵Unattributed quotes in this section are from two interviews in late 2001-early 2002 with two senior union officials.

The 22 line crosses very different social terrain as it traverses the city, moving from its northernmost terminal point through the wealthy, white enclaves of Pacific Heights and the Marina District, on to the Fillmore and Western Addition where the neighborhoods are largely black or multi-racial and lower income, then passing through the center of the congested and demographically diverse Castro District and then finally traveling along Mission Street, the center of the Latino community in San Francisco, until it reaches its southeastern terminal point near Potrero Hill, another poor black neighborhood, now in the throes of gentrification. The line serves both the nine to five commuters to the Financial District as well as those who are riding the bus while making short trips doing errands in their immediate neighborhood.

The main things considered when it came to developing a plan for improving the 22 line were “safety, scheduling and community relations” but the number one issue was the schedule. The plans focused on identifying where time adjustments were needed. The focus on safety specifically addressed problems with the school kids, a growing issue on city buses – one more way in which the bus has become a microcosm of the social world outside. Where once transistor radios, pea shooters, spitball throwing, and cigarette smoking in flagrant violation of the No Smoking signs were the state of the art in obnoxious behavior on the part of teenagers riding buses, now there are the routine possibilities of boom boxes, gang violence, guns and marijuana smoking to contend with. (Last fall for example, an honor student was murdered, fatally shot on a Muni bus as he tried to intervene in a dispute between two other young people (Zamora 2003). Muni was vilified in the press in the aftermath of this crime -- blamed for not having figured out a way to manage the bus schedule to prevent the swarming of school kids on buses that

routinely seems to occur from 2:00 PM to 3:30 PM, and also for failing to anticipate the crosstown rivalries among the teenagers from different schools and different “hoods” who might end up boarding the same bus (Editorial 2003; Knight 2003).)

Operators are in a difficult situation here. Articulated buses such as those on the 38 and 22 lines are huge. It is difficult for drivers to see what’s going on in the back half of a sixty-footer under normal conditions, much less when it’s crowded. Transit operators carry no weapons and run the risk of grave personal harm themselves. The buses are outfitted with both radios and silent alarms to alert Central Control and the police, but response times to these calls for help are often much slower than needed in a volatile situation.

In any event, these were the three target issues in the 22-line experiment. A serious effort went into improving the situation, including the transit agency’s hosting of a series of community meetings held in all of the various communities that the 22 line services. It turned out that the new schedule was much better for the operators but this schedule required more than just time adjustments – it meant an increase in ticketing of commercial vehicles on Fillmore Street, which required manpower and time from both the Department of Parking and Traffic and the San Francisco Police Department. It also meant deployment of street supervisors to monitor the problem spots and to begin to identify and assess the routine traffic patterns that were causing difficulties for the buses on the route.

Among other things, it quickly became apparent that the 22 line needed more buses in order for the experiment to have a chance at success. In fact, the issues facing the 22 line demonstrated the interconnectedness of various operational issues at the Railway.

Giving the 22 line more buses meant, at least in the short run, starting a zero-sum game since these buses would come from the existing stock. Since Muni was still recovering from the years of deferred maintenance from the mid-1980s to the mid-1990s, the supply of adequately maintained, “good” trolley-buses was limited. In order for the 22-line to have good buses and enough of them to prevent excessive crowding, some other part of the system was going to have to suffer.

Another aspect of the service under scrutiny for change as part of the 22-line experiment was controlling the crowds and the unruly behavior of the school children boarding the bus in the morning and the afternoon, particularly the afternoon. Again, this meant collaboration with the San Francisco Police Department because Muni has no separate police unit. Although the police have a formal “ride-along” program with Muni, asking for specialized, focused attention along the 22 route meant that resources would have to be drawn from somewhere else. A zero-sum game, once again.

Now, the interesting thing is, in the short run, the 22-line experiment was a success. As previously mentioned, the schedule changes were well received by the operators. Len Syme reported in an article published in 1998 that early reports on the project that increased ‘job control’ afforded the drivers of the 22 line “made for measurable improvements in the service, and measurable improvements in operators’ morale” (Syme 1998). While no one made the link to the blood pressure of the 22-line operators, it was clear that in terms of measurable work organization variables, the experiment had made a difference.

Because the changes to the line caused resources to be drawn away from other parts of the organization, that disparity ultimately caused its demise. In this case, the

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operators on the 22-Fillmore line became both targets of resentment and exemplars of the Muni system – the most visible symbols both **within** and outside of the transit agency. Behind them lay a whole range of system changes that need to happen: improvements in maintenance of current equipment, procurement of new equipment (no Muni buses had been purchased in close to ten years), a realistic appraisal of the schedule for this bus line – a schedule which had last been evaluated in the late 1970s. And the apparent unfairness of the extra attention being devoted to this single line when the general needs of the transit agency were so great ultimately caused unresolvable problems. The conclusion of the union official whom I interviewed about the 22 line is telling: “And just like everything here at Muni, sustaining programs is very difficult unless you have somebody constantly kicking them in the tail.” Like the Cable Car experiment, the 22 line experiment ultimately fizzled out.

The Ambassador Program

Before getting into the particulars of the Ambassador Program I would like to spend a moment reflecting on its name. The name carries a certain freight because it implies that transit operators are to be “ambassadors” for the agency, with all the notions of diplomacy, grace, and personal good will that ambassadors for nations are **required** to bring to their jobs.⁹⁶ The unspoken requirements and rules of emotional labor are articulated forcefully in this name (Hochschild 1983). In addition, the Muni “ambassadors” differ from their state department counterparts by having almost no control

⁹⁶Thank you, David Ragland, for musing on this with me in November 2003 at the Cable Car barn.

over the circumstances of their work (Karasek and Theorell 1990). The problem with this metaphor, as transit operators readily tell you, is that unlike those kind of ambassadors, the “ambassador-transit operators” are dealing with an unruly public who are not trained in or playing by the rules of diplomacy; Muni “ambassadors” do not have the full force and power of their “nations” behind them.

The program is portrayed as beneficial to and supportive of the transit operators, with no apparent awareness of the additional labor it entails – physical as well as emotional. The remarks of a senior union officer starkly contrast to those of a rank and file employee. The union officer said: “the Ambassador Program is geared to **supporting the operator**, you know? ... give them the necessary support so that they can be ambassadors ... we made sure that they got trained first in the Ambassador Training Program [discussed below] ... then we said while that’s going on what can we do to improve their work environment so that they can be good ambassadors.” One rainy November morning when I told a rank and file employee that I had to leave the gillie room and head over to one of the training sessions of the Ambassador [Training] Program she said, “The Ambassador Program! When they sent me to that, I thought it was because I had done something wrong! **I thought I was being punished!**”

The conflict comes through clearly here: support versus punishment. This is very similar to the training philosophy of the airline that the flight attendants who were the subjects of Arlie Hochschild’s study worked for: “From the beginning of training, managing feeling was taken as the problem. The causes of anger were not acknowledged ... Nor were the overall conditions of work ... These were treated as unalterable facts of

life. The only question to be seriously discussed was “how do you rid yourself of anger” (Hochschild 1983: 113). The two experimental interventions described just above, and the union leader’s comment point to at least the token suggestion of changing work conditions, but the actual evidence for meaningful, long-lasting change is sparse.

Spotlight: The Ambassador Training Program. The congeries of programs that are jointly described as “The Ambassador Program” were first written into the union contract in 1996. The elements included:

- the Ambassador **Training Program**, a series of six all-day workshops designed to train transit operators and other Muni employees in communication, conflict resolution and stress management
- the Ambassador Newsletter, a glossy 8-1/2 x 11 page periodical full of newsy articles about improvements to transit operators’ working conditions and profiles of operators and others around the property who were “making a difference.”
- Destinations, a public relations newsletter for passengers available on buses that highlighted various aspects of the transit operation.
- Friends of Muni, a community outreach and education component
and
- the Employee Assistance Program, a peer-based drug and personal problem referral service.

Planning for these various components had begun during the contract talks in 1996. At that time, the first serious inroads were made in discussing the possibilities for change in the work organization. In addition to changing the schedule, the 22 line experiment also provided to the operators driving that line an early version of the training

that later became the system-wide Ambassador Training Program. The full-fledged Ambassador Training Program started in 1999. Training in this program became one of the primary sites for the “normalization” of the major occupational health hazards that the transit operators face.

Begun in fall of 1999, the Ambassador Training Program consisted of six all-day sessions taught by two separate consulting groups, Stir Fry Productions and Knight Associates. Stir Fry had responsibility for four of the six sessions focusing on diversity training and conflict resolution. Knight and Associates handled the remaining two sessions, on stress management.

Though the Stir Fry components also included elements that could also be described as “stress management,” I will focus on the Knight and Associates modules because they were expressly billed as such. In my observation of this portion of the training I witnessed teaching about and collected written material on “self care” – an eclectic collection of ideas from the popular culture about how to control stress, occasionally bolstered by inaccurate “scientific” information – in short, a hodgepodge pulled directly out of the “stress discourse.” summarized in Chapter Four. The handouts I collected taught the participants the language of stress and served as a way to remind them of their own personal responsibility to recognize and alleviate the stress in their lives.

For example, one of the handouts used was a multi-page booklet with the title on the first page, “Stress is an Occupational Issue,” followed by a series of symptoms introduced by the question: “Do you as a bus driver experience any of the following?” The symptoms – back pain, headaches, frequent tiredness, swollen or upset stomach, shortness of breath, numbed or tingling limbs, dizziness, difficulty in sleeping, high blood

pressure, occasional pain in the chest or heart area, mental overload – are a primer of the classic symptoms from the biomedical stress literature. This was followed by a list of the chief sources of “stress” in the job environment:

Do you ever feel stress by any or all of the following?

- ◆ The possibility of assault by passengers
- ◆ Traffic congestion and peak running times
- ◆ The risk of carrying large amounts of money
- ◆ Lack of information about company management and no chance to suggest changes
- ◆ No recognition of work well done?

Though this document seems to acknowledge the very real problems with the work of a bus driver, it is misleading. By calling “the possibility of assault by passengers” (a common operator experience) something as generic as “stress,” it misses the more complex and accurate ways of describing that emotional response, for example, by naming it “fear.” Further, speaking about these work experiences in same breath as the “normal daily stresses of every day life” (e.g. traffic during your morning commute, worry over your children) trivialized the extremity of the wear and tear that affects operators on their jobs.

Indeed, the Ambassador Program stress management session was notable for its emphasis on these **personal** approaches to solving the problems defined as “stressful” on the job front. The helpful “hints” for managing stress were also personal – “control your attitude, eat right, sleep right, take care of yourself.” Of course, there is nothing wrong with this advice, it is sound and sensible, but it fails to acknowledge or take into account the elements of the work environment that can contribute to “stress” on the job.

This extended even to the public relations for the Ambassador Training Program. In the printed references to this training, it was consistently touted as a major effort on the part of the organization to improve things for operators. For example, on the cover page of the Ambassador” newsletter for June 2001, an issue devoted specifically to promoting the Ambassador Training Program, there is a picture of the then chief operating officer of Muni, Lisa Mancini, and a quote from her about the training: “Muni is completely committed to this program. Its [sic] for everyone – managers to operators.” Next to her, there’s a transit operator’s image with his remark: “The stress reduction techniques are what helped me the most.” Inside are more quotes from operators attesting to the value of the Ambassador Training Program, including a woman I know who said, “The classes really help you deal with the stress of being out there everyday.”

The result of minimizing and normalizing occupational stress is that it reinforces the “cool pose” occupational habitus which begins to influence an operator’s belief in his or her ability to effect change in the work environment. In all of the Ambassador Training program sessions in which I was a participant observer (both Stir Fry and Knight & Associates) there was a segment towards the end in which operators were asked to itemize problems on the job. The facilitators told the participants that their feedback would be compiled and given to management. Operators’ comments often spoke to their frustration over their inability to exercise independent judgment to solve problems: having to go through Central Control was frequently described as a nuisance (at best) since the people who worked there often had no way of assessing the vagaries of a particular traffic situation that an operator was dealing with in the moment.

For instance, one operator told a story of a time when he was driving the 28 line, a major north-south route on the west side of the city. The operator explained that he had been at the northern terminal (Fort Mason) of this route one Sunday afternoon when he received a call from a fellow operator who told him that a eucalyptus tree had fallen across three northbound lanes of 19th Avenue (the major street this line traverses) and was tying up traffic in both directions. He also learned that three 28 buses were stacked up heading north (inbound) in this traffic snarl. When he called Central Control for guidance he was nevertheless told to start his southbound run. In his opinion this was unfathomably bad advice because he already knew he would then get tangled up in existing mess. It is impossible for us to judge what the right or wrong decision might have been in this context, but the point of this example is to illustrate an occasion where, from the point of view of the transit operator, his being thwarted from exercising intelligent independent judgment made a difficult situation that much more so.

Similarly, operators were asked at the end of the stress management modules I participated in (as the note-taker for the group) to imagine how a set of **personal** coping skills (closeness, communication, problem-solving, flexibility) might be applicable to **structural** problems that they had identified as significant: bad equipment, budget issues and “not-out” runs⁹⁷ The operators shrugged, related their stories and then took a “you

⁹⁷Not-out runs are bus runs that are scheduled but for one reason or another the bus didn't leave the barn. The main reasons are “no operator” (NO) and “no equipment” (NE) (because of mechanical problems). Muni management tries to minimize the number of NE not-out runs by deliberately putting out bad equipment, so that the report on the bus reads “made pull-out.” The operator struggles with the equipment for a while, eventually calling Central Control and/or speaking with a street supervisor to get the bus pulled in to be fixed, which doesn't get recorded on the not-out run sheets.

can't fight city hall" attitude toward it all. They viewed the collection of complaints and suggestions as a *pro forma* activity, not a serious endeavor.

My own participants had very little to say about the impact of the Ambassador Training Program. Though it was not a direct interview question, I did ask questions about how they tried to alleviate "stress" in their lives. It came up spontaneously in only three instances; it is interesting that all were women (Natalie, Thomasine and Queenie). Only one operator of this group enthusiastically described the Ambassador Program as a source of assistance for her. What is telling in her report is that it was the opportunity to affiliate and problem-solve with other transit operators that was the most important thing about the experience to her, not a specific educational message that she received. She compared her participation in the Ambassador Program to going to VTT (Verification Transit Training) classes taught by the Muni Training Department which offer a similar opportunity for operators to get together on paid time to discuss aspects of their work.

Because I had not at first specifically asked about the Ambassador Training Program in my interviews with research participants, I re-contacted as many of them as I could (aiming particularly at the seventeen who had not mentioned the Ambassador Training Program) to ask them if they had participated and what they thought of the experience. Of those whom I was able to contact, only three had participated in the program but all had an opinion about it. None of the participants' opinions were positive, and only one of those who hadn't participated thought that he would have liked to. The reaction of Ann Lightfoot was fairly typical. She said she thought the stress management sessions were phony and irrelevant to her every day experience. "It's all about the money," she repeated frequently.

This comes up over and over again in conversations with operators. They say, “everyone is looking to get paid” – management, union leadership, the rank and file – and money considerations trump everything else. For example, returning to the voice of the union leader quoted earlier in the discussion about intervention efforts, he said that the difficulty with pushing management to “deal with some of those things because **they were all money items and they were looking at them as being money items and not looking if it did work it would save money on the other end.**” Short term financial considerations color almost every decision that Muni makes, even extended to the funding mechanism of the Ambassador Program itself, and played a central role in its radical reconfiguration toward the end of my time in the field.

The Ambassador Program was funded by the “Muni Improvement Fund” (MIF), which was written into the 1996-2000 M.O.U. (Article 6). The original funding (eight hundred thousand dollars) came out of overpayments to the “trust fund,” a Muni budget line item which had formerly been used to reimburse operators for health insurance costs which they used to pay for directly, and which had been a contentious issue back when Willie Brown ran for mayor in 1992. Ultimately contributions would come from both the union and the Municipal Transportation Authority (MTA), the governmental board that has oversight authority for both the Municipal Railway and the Department of Parking and Traffic. This board was the result of the passage of Proposition E after the Muni meltdown in the summer of 1998 (a major failure in the installation of a new computer system controlling the crown jewel in the Muni system – the light rail vehicles on the Metro (Green) line) and its purpose was to remove Muni from the direct control of the politicians (the mayor and the Board of Supervisors).

The MIF Board consisted of five representatives of the union (all senior office-holders) and five city appointees. A four-page leaflet written by an activist member of the union (not my participant Brian) which was distributed widely to operators reaffirms much that I heard through the ethnographic grapevine – that the consultants were grossly overpaid for the work that they did, that the “coordinator” for the MIF was also receiving extremely fat consulting fees (\$30,000 per month, not including expenses) for what didn’t appear to be much work. Nothing in this leaflet said anything that would have changed the opinion of those operators who said, “everybody’s looking to get paid” and who then concluded that the better part of valor was to “make do” by making sure that one’s own personal interests were protected.

This echoes what my research participants said when they were asked about their expectations of the union (leadership) and of management at temporally separate points during our interviews. Those who had more senior leadership positions in the union (with one notable exception) said, “things are getting better, it just takes a long time and held that the most important job of the union was to protect the membership’s pay and benefits. Others, whether activist (e.g. regular attenders at union meetings, office holders at either the division or local level) or not, fundamentally argued that the leadership was to a greater or lesser degree complicit – “the Union is Muni!” – and that most of their co-workers were uninformed and not interested in putting forth any effort to get informed about the political and economic issues facing their employer and the impact of these on their own work lives.

As for management, the prevailing point of view of both my research participants and the larger group of union rank and file membership whom I came to know was that

“Muni is set up to fail.” There was one exception, a woman operator, and interestingly, the least senior of my research participants (with only six years of experience under her belt) who believed that “we have the power”; we need to do more than just complain) [Queenie]. Reggie put the majority opinion most succinctly, “Management knows about the stress of the job, they just don’t want to do anything about it.” His words are a distorted echo of those of the union official quoted earlier who said “these were all money items and they were looking at them as being money items and not looking if it did work it would save money on the other end.”

By the early Winter of 2002 the Ambassador Program was under fire because there were major questions about how the money that been allocated for the activity was actually being used by the trustees of the fund. The Ambassador Training Program sessions I attended toward the end of the intense phase of my fieldwork in January 2002 were sparsely attended. Dispatchers, working with the union reps were supposed to be selecting operators to attend; the plan was for all operators to have participated in this program. Though attendance was supposed to be a cross-section of the organization (supervisors in other departments were supposed to ensure the attendance of other employees) there was only a handful of bus drivers from one division present at one of the Knights’ stress management sessions, and several of these had been previous participants in the program.

It seems that upper and/or middle management had already begun to pull the plug on the program by tacitly encouraging dispatchers to “forget” to assign operators to attend the sessions. The stated objective of having employees from other departments participate as well seemed completely forgotten. Fifteen months earlier, in November

2000, when I had attended one of the Stir Fry modules, there had been lively participation of about fifteen people from many different segments of Muni. This same module, which I attended again a week after attending the stress management module, was also very sparsely attended and, in fact, the second day it was cancelled. When I asked the Chair of the Board of Trustees of the Muni Improvement Fund about this, he acknowledged problems with attendance and blamed it on poor public relations that the Ambassador Training Program had received. But this didn't really jibe with the fact that earlier when the program was newer (and therefore less well known), the attendance was greater. Further, attractive, glossy eight-page newsletters called "Ambassador" were distributed widely at Muni in my observation. They could be found in the gilley rooms at the Divisions, at the union headquarters at 1508 Fillmore Street, and at various waiting areas (I recall seeing them in the waiting area outside the disciplinary hearing offices on the 3rd floor at 401 Van Ness Street, the Muni administrative headquarters).

Sparse attendance was indeed a harbinger of the decision to stop paying the outside consultants to run the training and to bring it "in-house," to be taught by the Muni Training Department, the same entity that trains new operators and that teaches the Verification Transit Training (VTT). A brief comment on VTT and the Muni Training Department is in order here.

The Department of Transportation requires that transit companies offer VTT classes to their drivers annually. These are kind of "continuing education" for operators at Muni, run by the Training Department at the old Muni headquarters building at the corner of Geary and Presidio. Many of the trainers are former transit operators who "took the test" and got promoted to a transit supervisor classification. They are in the training

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department because of an interest, and in some cases, a natural ability in teaching, though they receive little further formal education in these skills. The Training Department has typically been seen as focusing on “technical skills” as opposed to “professional development” skills (which the Ambassador Training Program was considered to be), but these distinctions are difficult to make in practice. In fact, based on the awareness of the emotional labor that operators are required to perform, it is reasonable to argue that the communication skills taught in the Ambassador Training Program are “technical” skills, and could well have been taught in VTT classes and in new operator training classes.

CONCLUSION: THE COUNTER EVIDENCE

Some counter evidence was faintly visible in the case of the Ambassador Program just discussed. One of the operators in the stress management session which I attended was Jimmy, an immigrant from China, who at one point described the school children on the line he drove as “all kinds of tigers,” a reference to the handout he had received that morning depicting the evolutionary basis of the ‘fight or flight’ (stress) response. The handout used an illustration of a caveman about to be attacked by a tiger. He suggested that operators were not sufficiently trained to handle these students adequately and felt that it should be incorporated in the new operator training. Jimmy understood the situations that have been defined as “stressful” on the job, but he had denied their impact on him⁹⁸. When the trainers talked about how different cultural groups experienced and

⁹⁸A similarly surprising result is found in a paper by Winkleby, et al which found that, based on questionnaire analysis, the transit operators who said they did not experience stress on the job had the higher blood pressures ((1988).

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internalized stress, Jimmy contrasted himself with his son, whom he described as “100% American,” implying that he (the son) was living the typical “stressed” American life.

Jimmy has what John Ogbu might have described as a voluntary migrant’s attitude toward his job – it is instrumental – it is a means toward an end, and he has mastered the skills of doing whatever it takes to maintain his equanimity in the work place (Ogbu 1995).

He has tried to pass on this attitude to his fellow workers, especially when he works as a line trainer: “I tell them what I know. Every other Tuesday [i.e. payday], every July 1st [i.e. the beginning of the fiscal year and the date on which annual raises are given to operators] you’ve got to learn how to keep the job” [020108, p.1]. Jimmy expressed the primary motivation of the transit operators that I came to know – the financial rewards of working for Muni as a reason for “putting up with a lot of crap.” Later on the subject of passing on his knowledge to younger operators, he said that he told a young hothead, “Hey, you’re not going to make your pension.”

Jimmy followed and offered to others the basic advice that I heard from many operators which contains the basic wisdom that one hears in many other contexts: “Don’t take the job home with you, and do whatever you can to shake off the negative experiences you have in the moment.” His sayings were rich: “If they crazy, don’t you get crazy yourself;” “Don’t build all this pressure, all this stress in the body;” “Best way to operate is with one eye open and one eye closed.”⁹⁹

⁹⁹This is an example of a “Don’t see it” feeling rule that other operators also shared with me. Jimmy’s alternative expression for this practice was “Right ear in, left ear out.”

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The other thing that this example illustrates is the important, but underutilized role of operators imparting their knowledge to fellow operators. Like Dux, a member of my intensely observed group, Jimmy has taken it upon himself to take new or less experienced operators under his wing. For example, he described telling another Asian man, newly hired by Muni, 28 or 29 years old (approximately the same age as his son) to quit smoking, prefacing the advice with: “Nobody ever told me this...” Clearly though, he felt that these were the kinds of things you needed to know in order to survive on the job.

I heard this from my key research participants as well. I mentioned earlier one of my participants recalling that he had been advised to quit smoking by a more senior operator when he first started the job. When I was introduced to Dux Thibodeaux by Reggie, he told me that Dux was someone who had “cured” his hypertension. The language could be quibbled over, but the point is that Dux was taking his medicine, walking his dog as a form of regular exercise and basically setting an example as an admired “senior operator,” who knew how to “handle his business” when it came to his health. These sorts of peer-to-peer possibilities are manifold and untapped.

Another example of the disconnect is the lobbying undertaken by a member of the union, and one of my participants to cut down on the amount of idling of buses in the indoor garage in her division. Citing the health dangers of exhaust fumes which she researched and downloaded from the Internet, she had succeeded in getting management to change the policy so that bus engines were not kept running at all times in the garage. This same operator was also working as a committee member of the Downtown Management Group, attending monthly meetings on her own time to figure out ways to help the police more effectively enforce diamond traffic lanes (limited to buses only) and

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red (no parking) zones downtown. She also said, “I want operators to start making their doctors know they work for Muni. They [referring both to the doctors and her fellow operators] really need to know that (Thomasine 10-2.wpd, lines 456-458). Thomasine’s comments echo the remarks of two major occupational health researchers, Belkic and Schnall (Belkic and schnall no date) who say that it is important that transit operators let their primary care providers know about (and that the providers pay serious attention to) their work circumstances so that they can account for these in their routine care.

Another example is the need for more bathrooms for operators along the bus routes. During my field work I picked up Muni Bulletin 01-061, the sixty-first memo to operators published in 2001, which has a revised list of bathrooms for Muni personnel organized by transit line. The list was fourteen pages long and included both Muni-built restroom facilities like the one I saw and used at the western terminal of the 38-Geary, and restroom facilities located in restaurants, convenience stores, gas stations, and other locations where Muni has expressly made an arrangement with the owner or proprietor for transit operators (and street supervisors) to use. This seemingly mundane accommodation represented years of organizing and haranguing, largely on the part of women who began to arrive on the property in numbers in the late seventies and early eighties. The former Secretary-Treasurer of the Union described how different things were for women back then in a speech posted on the University of California Center for Labor Research and Education web site entitled “Surviving in a Man’s World.” (Caldwell no date). In the speech she itemized the accomplishments of the Women’s Committee of the union local, one of which was the passage of Proposition B, a half-cent sales tax that funded twenty-two stand-alone restrooms that Muni built.

The Women's Committee also claimed responsibility for the installation of radios on buses for driver security, and a rule in the contract that stated "All equipment in use shall be equipped with operable radios. No operators shall be required to operated equipment not so equipped after 8:00 PM and prior to 4:00 AM." The question of violence on buses was also addressed by a newly hired occupational health and safety specialist who conducted focus groups in the early nineties which led to the creation of a Violence Prevention Policy, part of the Injury and Illness Prevention Policy that California state law requires of all employers. The policy included a statement assuring that operators didn't have to "risk violent injury in the course of performing his or her job," and in addition, promised upgrades of radios and silent alarm equipment on older buses and the inclusion of security cameras on newer buses.

The central theme running through these examples, even going back to the initiation of epidemiologic research on bus driver health at Muni briefly discussed at the beginning of this chapter, is that of an individual or group who took the initiative and maintained the effort to push for change in the working conditions. Some kind of change eventually happens, though most often it is in painfully slow increments, largely the result of the structural limitations in which the actors are bound.

In some senses, the counter-evidence does little more than reinforce the perception that *plus ça change, plus c'est le même chose*. The limitations on restructuring the system caused by the uneven flows of money available for this public good have been an element in Muni's history since the beginning. And it is easy to scoff at the seemingly small results, like new toilets, or policy statements without the necessary enforcement teeth, and failed efforts to improve the system (like the cable car experiment). But the toilets are

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permanent structures, here to stay, and the violence prevention policy affords operators a modicum of protection in the form of their rights to refuse to operate vehicles without the proper safety equipment. Every effort to improve work organization , failed or not, contains lessons to be learned for next time.

Even management isn't monolithic. Johnny Stein, one of the last of the breed of Muni General Managers (GM) to work his way up through the ranks from transit operator, wrote a stunning "Bulletin to Operations Personnel" toward the end of his tenure as GM in 1994. Titled, "Results of the 'Study of Stress & Hypertension in Transit Operators,' it provided a lengthy summary of the findings of the Berkeley researchers' work to that date and highlighted their recommendations. The first three of these focused on efforts "to address the **underlying occupational causes of hypertension**" and included 1) the suggestion to test a system of guaranteed layover time (i.e., that expendable R in the 3Rs - rest time); 2) operator input in scheduling decisions; and 3) physical and social support for operators including improving radio contact and emergency responses and implementation of policies to assist operators during and after crises. A parting shot, perhaps, but a parting shot is better than no shot at all.

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5. The fifth part of the document concludes by summarizing the key findings and recommendations. It stresses the importance of ongoing monitoring and evaluation to ensure that data management practices remain effective and aligned with the organization's goals.

CHAPTER SEVEN

CONCLUSION: QUO VADIS? QUO VADIMUS?¹⁰⁰

Power concedes nothing without a demand.
– Frederick Douglass, abolitionist

The heart has its reasons which Reason cannot know.
– Blaise Pascal, philosopher

In the century since the Municipal Railway was voted into being by the citizens of San Francisco much has changed in the United States. The beginning of the twentieth century was marked by an air of optimism and a belief in the ability of government to make life better for citizens. Remember that Muni was borne out of the municipalization movement – a belief that public agencies could provide services that benefitted the common good more effectively than could private enterprise. This was the dawn of the Progressive Era, a period when government was called upon to protect the lives of citizens of the republic in novel ways – through establishment of public health agencies, the regulation of foods and drugs, the provision of protections for workers who were injured on the job.¹⁰¹ In every case, these federal and state laws came into being through hard-fought battles by all kinds of citizen-activists – union members, upper class do-gooders, journalists, and intellectuals – who mobilized the anger and the imagination of everyday people to insist on improving the world in which they lived.

¹⁰⁰Translation: Where are you going (making your way/advancing)? Where are we going?

¹⁰¹The Food and Drug Administration was established by the Federal Food and Drugs Act of 1906. The first federal law mandating compensation for workers injured on the job was passed in 1908 (Duncan 2003). The rise of public health departments in the United States also dates from the turn of the 20th century (Petersen and Lupton 1996).

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3. The third part of the document focuses on the implementation of data-driven decision-making processes. It provides a framework for how to integrate data analysis into the organization's strategic planning and operational decision-making.

4. The fourth part of the document addresses the challenges and risks associated with data management and analysis. It discusses the importance of data security, privacy, and the potential for data bias or misinterpretation.

5. The fifth part of the document concludes with a summary of the key findings and recommendations. It emphasizes the need for a continuous and iterative process of data collection, analysis, and decision-making to drive organizational success.

At the turn of the twenty-first century, government is generally depicted as a necessary evil at best – an bloated, inefficient bureaucracy – and at worst, as an enemy of freedom. The neoliberal notion that private enterprise and the free market provide the most efficient mechanisms for distributing social goods prevails. Activities that have traditionally been the sole province of the state, such as logistics and support for armies in the field, have been contracted out to private corporations. In the realm of health, the federal government has become mainly a moral scold, not just educating but chiding and hectoring the citizenry to take better care of itself while failing to provide protections against the very “temptations” that lie in the paths of the “weak-willed” public and inadequately regulating the large corporations which provide the preventive medicines and lifestyle panaceas of which citizens are urged to avail themselves. The dominance of surveillance medicine has led to ever widening definitions of risk, opening the question of “what is normal,” creating new “pre” conditions, as in prehypertension (Armstrong 1995; JNC 7 2003a). The twin mantras of personal responsibility and individual choice confront the citizen-consumer at every turn as she browses through the mall, seduced by the wafting fragrances of cinnamon and caramelizing sugar from the Cinnabon Bakery conveniently located near the Lady Footlocker where she can buy her specialized athletic footwear to use to manage her stress at the wellness center on her job (where she works in customer service), when she has time, when she isn’t in her vehicle on one of the many errands that comprise her life in the megalopolis, moving from urban center to suburban sprawl among millions of others in rolling metal fortresses just like hers. There is the prevailing sense that this is “just the way it is,” the natural, modern order of things.

The meta-project of this dissertation has been to challenge this notion of the modern order of things – it isn't "natural." It is subject to the same forces of resistance and dissent that reined in the greed of the robber barons and the corrupt municipal governments of a century ago. Norbert Elias commented that "change is a normal characteristic of society" (1994 [1939, 1968]:189). His great work on the civilizing process made the case that there is nothing "natural" or "teleological" in the "evolution" of manners in Western Europe. The questions driving my project have been **how** do people and institutions change? What motivates action?

The meta-argument of this dissertation has not been about agency **OR** structure, it's been about agency **AND** structure locked in a perpetual embrace as the analysis moves across the narrative dance floor. By virtue of its grounding in practice theory, my argument has oscillated back and forth along the axis of agency and structure. The oscillation reflects the necessity of having to present these concepts one at a time, for the sake of analytical clarity. The most important point to make about this is to recall and insist on their unalterably entwined relationship. Phrases such as "structured structures" and "structuring structures" or notions such as "structuration" attempt to capture this in awkward academic prose (Bourdieu 1990:53 ; Giddens 1979:61-63). But Stephen Lyng's concept of a "social crystal," i.e., "the set of specific relations that define a social system" (1990, Chapter 3) helps as a more concrete way of remembering that *the holistic relation is central, not the individual terms*, whenever one feels tempted to weight one more heavily than the other. By visualizing the crystal as a whole and reminding one's self

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3. The third part of the document is a list of references, citing the sources used in the papers. This section is crucial for understanding the context and background of the research presented.

that at any moment it can only sit on one facet, you can make a more organic connection to the holistic nature of the practice theory analytical enterprise.

I have also argued that there is a dynamic nature to this that is captured in the shifts in power relationships between the players in this field and that this dynamism contains seeds of possibility -- the possibility for the subordinate group of players, i.e., the transit operators, to gain greater control over the circumstances of their work lives through praxis. The growth of these seeds depends on what Marshall Sahlins calls "the structure of the conjuncture," that is, the specific contingencies, social, technological and material, of the historical situation in which players find themselves (Sahlins 1981). Sahlins wrote: "The greatest challenge to an historical anthropology is not merely to know how events are ordered by culture, but how, in that process, the culture is reordered. How does the reproduction of a structure become its transformation?" (Sahlins 1981:8).

One of the lessons of the Progressive Era and the origin of Muni is that shifts in power relationships can change structures, sometimes fundamentally. The Railway emerged against all odds, established as it was against the will of powerful, monied forces, chief among them the Southern Pacific Railroad and its principals. Though its subsequent direction was to altered by new relations of power, its moniker, "the People's Railway," tells you about a basic expectation of change in the social order that its creation heralded.

In these last few pages I reflect on the key ethnographic and theoretical insights of my research on Muni transit operators with hypertension and offer my thoughts on the implications of these findings for the health of transit operators at Muni and other transit agencies. Finally, I consider my findings in relation to future research and theoretical directions in medical anthropology.

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I began this dissertation with the observation that transit operators are required to perform “emotional labor” in their jobs, that is, they have to either “induce or suppress feelings” in order to produce “the proper state of mind in others” (Hochschild 1983:7). Operators want and need the passengers on their buses to be quiet and mannerly toward each other. Their emotional labor most often takes the form of suppressing anger or fear in order to present a calm and impassive front to the riding public. In some ways, it could have been argued that they model the very behavior they hope to elicit from their riders. Performing this emotional labor, they develop a “cool pose” (Majors and Billson 1992), an occupational habitus that helps them to accomplish the technical requirements of their job – drive the bus safely, provide information to boarding passengers as necessary, handle transfers and other fare-related concerns efficiently – with a minimum of involvement in the mini-dramas that occur all the time during the routine course of a bus trip. Cool pose is a distanced, emotionally unexpressive way of reacting to both the small acts of grace and the many vicissitudes that are part of the daily to’ing and fro’ing of a transit operator’s routine. I argued that the development of this habitus is historically situated and I outlined the very specific relations of power that have been at play in the field of public transit in San Francisco since the inception of the Municipal Railway that have helped to produce this habitus and aided in its reproduction. Habitus is, after all, embodied history (Bourdieu 1990:56).

The multiple players in the field of public transit and the forms of power displayed in the history of the agency serve to emphasize the Comaroffs’ observation about power – that it comes in both “agentive” and “nonagentive” modes. The agentive mode is the classic form: power as the ability directly to exert control over “production, circulation,

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and consumption of signs and objects, over the making of both subjectivities and realities” (2002:28) . In a lovely turn of phrase the Comaroffs argue for both “the force of meaning and the meaning of force,” and it is in the former phrase, “the force of meaning” that nonagentive power is expressed,

immers[ing] itself in the forms of everyday life, forms that direct human perceptions and practices along conventional pathways. Being “natural” and “ineffable,” such forms seem to be beyond human agency, notwithstanding the fact that the interests they serve may be all too human. This kind of nonagentive power saturates such things as aesthetics and ethics, built form and bodily representation, medical knowledge and material production. And its effects are internalized B in their negative guise, as constraints; in their neutral guise, as conventions, in their positive guise, as values (2002:28).

The common terms for this mode of power, ideology and hegemony, were highlighted in my analysis of the “stress discourse.” I demonstrated how ideology was present in the discursive move away from “occupational health problem” to “personal responsibility” in explanations for the high rates of incidence and prevalence of hypertension among San Francisco transit operators. Here was a case where an all-pervasive idea gave itself the appearance of materiality, that is, it became reified through the process of “abstracting the ‘appearances’ of social things from the context that provided meaning” (Lyng 1990:42). The crucial rhetorical strategy here was to define that which the operators called stress as “natural,” thereby robbing them of the ability to press for change in their work organization by failing to locate the problem in the all too manmade conditions of their employment.

I made a case for one way that the social gets in the body by marshaling evidence from psychology (Dickerson and Kemeny 2004) and occupational health research (Belkic et al. 1994; Karasek and Theorell 1990; Landsbergis, Cahill, and Schnall 1999; Ragland et

al. 1998; Syme 1990; Syme and Balfour 1998). I argued that while “stress” as a generic term missed the mark, the research on **job strain** fit well with the laboratory studies that show that humans are more physiologically reactive when they face **threats to their social selves** – threats that make them angry and/or afraid. This is the more precise way of characterizing the “stress” that transit operators experience on their jobs, and this characterization provides the mechanism by which the social is actually materialized and manifested in the high blood pressure transit operators develop. Here is one mechanism of change at the individual and the social level.

My data offered a challenge to the commonly held assumptions about why people do what they do with regard to health advice. I found that operators were not ignorant of biomedical knowledge about hypertension, and in fact had incorporated some, if not many or even most of the practices for managing it in their lives, but the most important revelation of my research was that the source of the motivation to incorporate these practices came not from “rational knowledge” (**at best, a necessary but insufficient condition**), but rather from personal connections, from the social relations that gave meaning to their practices and their efforts to change their habits and thus encouraged persistence in the face of obstacles, both internal and external. I argued that *the gap between knowledge and practice is not as important as that between personal motivation and environmental support.*

This is the challenge to the present efforts of the applied anthropology and public health communities. If we are to move the government beyond hectoring us, if we are to get really serious about helping people to institute “lifestyle changes,” such efforts must be

aligned with a recognition that choices are made in social and environmental contexts – that the decision to walk to work is made as much out of sense that the walk might be both pleasurable, safe, and reasonable in time it takes to accomplish, as out of a more abstract health consciousness that to do so would be “good for you.” Similarly, we must acknowledge that basing your decision to walk to work on the fact that you heard from your friend how much he was enjoying it, is as valid as any other reason one might choose to proffer.

In the specific case of Muni, the union leadership did press management to change the work structures, based on the knowledge it gained from the rank and file’s participation in the “Stress Study,” but the efforts at organizational change have never been attempted for long enough or comprehensively enough to institutionalize the structural changes that would have effectively supported operators in their work (e.g., realistic adjustments to the schedule) and which would have been most likely to also have an impact on their long-term health (Evans, Johansson, and Rydstedt 1999; Johanning et al. 1996; Karasek and Theorell 1990; Kompier 1996; Rydstedt, Johansson, and Evans 1998). The short-term financial focus and frequent turnover of the agency’s leadership have been the main factors that have contributed to the lack of continuity and persistence of effort.¹⁰²

¹⁰²There have been nine general managers between 1980 and 2002), with the periods between turnover ranging from one to five years, but averaging around two years. Since the arrival of Michael Burns in 2000, the Office of the General Manager has been somewhat more stable, though he was promoted up in 2003 to become Executive Director of the Municipal Transportation Agency. As of June 2003, Fred Stephens is General Manger of the Municipal Railway.

Implications

Making a Difference for Muni Transit Operators. The first implication pertains to the question of the further applications of this research. Anthropology is sometimes accused of crystallizing a moment in the past and failing to apply its insights in the present moment (Wolf 1982:18). A related criticism is that it so specifically characterizes a social entity that it is impossible to make generalizations beyond the locale and the people who were the subjects of the research (Manners and Kaplan 1968:4). I think that my project escapes these criticisms because it gives more the weight to the accumulating evidence from many disparate disciplines on the role of the work environment in the production of hypertension in transit operators (Belkic et al. 1994; Carrere et al. 1991; Kompier 1996; Ragland et al. 1997; Ragland et al. 1998; Ragland, Winkleby, Schwalbe, Holman, Morse, Syme, and Fisher 1987).

Further, my observations of transit operators' health management practices are aligned with those of many other ethnographers who have found that people are more resilient and interested in taking care of themselves than they are given credit for in the biomedical and "health belief"-based health education literature (Ferzacca 2000; Garro 1988; Hunt, Jordan, Irwin, and Browner 1989; Lupton 1996; Miewald 1997; Schoenberg 1997).¹⁰³ These ethnographers have helped to establish that health knowledge alone rarely

¹⁰³Examples from this latter literature are Brown and Segal (1996), Carter(1995), and Hall (1985). These authors start with the premise that if patients understood biomedical explanations better, they would do what they were told. An intervention is applied to 'educate' patients or teach doctors how better to educate their patients. When the results are disappointing, ethnomedical beliefs and/or poor doctor-patient communication become the analytical whipping boys. Golin *et al.*(1996)) argue that the patient's point of view is often missing in the compliance literature and Phillips(1997) provides support for this assertion in her analysis of individual, provider, and

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1. The first part of the document discusses the importance of maintaining accurate records of all transactions and activities. It emphasizes that proper record-keeping is essential for transparency and accountability, particularly in the context of public administration and financial management. The text highlights that without reliable records, it becomes difficult to track expenditures, identify inefficiencies, and ensure that funds are used for their intended purposes.

2. The second part of the document addresses the challenges associated with data collection and analysis. It notes that while modern technology offers powerful tools for data processing, the quality and consistency of the data itself can be a significant barrier. Incomplete or outdated information can lead to flawed conclusions and ineffective decision-making. The document suggests that investing in training and infrastructure to improve data management practices is crucial for overcoming these challenges.

3. The third part of the document focuses on the role of leadership in driving organizational success. It argues that strong leaders are those who can inspire their teams, set a clear vision, and foster a culture of innovation and collaboration. The text provides several examples of successful leaders who have transformed their organizations through their vision and strategic actions. It also offers practical advice on how aspiring leaders can develop the skills and qualities necessary for effective leadership.

4. The final part of the document discusses the importance of continuous learning and professional development. In a rapidly changing world, individuals and organizations must stay current in their knowledge and skills. The document encourages a growth mindset, where individuals view challenges as opportunities for learning and improvement. It suggests various ways to engage in professional development, such as attending conferences, taking courses, and seeking mentorship. The text concludes by emphasizing that a commitment to learning is essential for long-term success and resilience.

produces behavioral change; context, including the social environment and supportive connections to others in that environment, plays a critical role in motivating and sustaining behavior leading to positive health outcomes. Small details make a crucial difference here. Frohlich's work on context in adolescent smoking behavior in Quebec, Canada demonstrates how neighborhood by neighborhood, locations of stores, membership in specific peer groups and parental attitudes affect smoking rates (Frohlich, Corin, and Potvin 2001; Frohlich, Potvin, Chabot, and Corin 2002).

In the instant case, peers were a powerful source of support. Operators who were successful at managing their hypertension became exemplars for others (think back to the stories of Reggie and Dux in Chapter Five, or Jimmy in Chapter Six). Unfortunately, at Muni this resource is grossly under-utilized and fragile. The peer relationships among operators at Muni are built on shifting sands of trust and distrust, isolation and solidarity. Accusations of "running sharp," going faster than the established schedule as a strategy that places the burden of passenger carrying on your follower, make for frequent misunderstandings among operators working a particular line in a division. Operators with seniority also move from division to division in search of high-paying runs. Most fundamentally, operators spend their work days in transit. The opportunities for building relationships with their fellows are fleeting, based on brief encounters at the division, or when one operator relieves another along the route. It would require time, skill, and sensitivity to muster these relationships for the purposes of health intervention. This is compounded by the wariness with which operators rightfully view interventions – they've

¹⁰³(...continued)
environmental influences on mammography decisions.

seen them before, and in their experience there's little reason to believe a new one will be any different from the others. In addition, marshaling the power of peer influence cannot be the **only** approach because it would once again put the onus **solely** on the operators, without addressing the work conditions that cause the anger and fear that are the basis for the "stress" that causes hypertension in the first place.

Unintended consequences. Laura Nader famously cautioned anthropologists about their research among relatively powerless people, arguing that the results of such research are most often used against those whom it was intended to benefit (Nader 1974). In re-emphasizing the work-related causes of the high rates of hypertension among bus drivers I run the risk of provoking a response similar to that recently reported in San Mateo County, just south of San Francisco in the heart of Silicon Valley. There, the Sheriff's Department has established a new policy prohibiting the hiring of job applicants who smoke (Kim 2004). The reason? In law enforcement and fire departments in California, the legal presumption is that if an employee develops cardiovascular disease it is related to the high stress of their jobs. Because of the high levels of work-related cardiovascular disease disability claims, the San Mateo Sheriff's Department decided it was within its rights to eliminate at least one variable that is known to also be a factor in cardiovascular disease. Here is a job where the nature of work has actually been implicated in the subsequent health problems of its incumbents; how telling that in this department's case, the management strategy has been similar to that tracked at Muni, a move towards enforcing the rhetoric of "personal responsibility," through a focus on individual risk factors.

How many doors of opportunity would such a hiring policy close, were it to be instituted for applicants to Muni? This is a secure, well-paid job for people with no more than a high school degree; it is a rare employment opportunity these days. As such it is the entry to the economic middle class for many who find employment there and who are likely to be discriminated against in many other work settings – new immigrants, non-native speakers of English, and blacks. These are the people who dominate the pool of potential employees and the actual workforce at Muni. Regrettably they are also representatives of a population where higher rates of smoking prevail (American Cancer Society 2000). I have a real fear of the impact of a policy similar to San Mateo County's upon this group of job applicants to Muni, were it to be implemented.

I am not arguing against policies that would help people to quit smoking, or to change other aspects of their "lifestyle" that might have an effect on improving their health. What I am arguing is that such lifestyle changes must never be divorced from the social context in which they take place. Lyng asserts that:

When the notion of personal responsibility for social problems is placed within a sociological and praxis-oriented context, this approach can no longer be designated as blaming the victim perspective. Personal responsibility within this latter context does not dissociate social problems from their structural determinants; it simply underscores the responsibility that people must bear for deciding either to acquiesce to social conditions that oppress them or organize collectively to change those social conditions. People are indeed to blame for the experience of poor health if **they understand** their condition to be socially determined and yet do nothing to change the society they live in (1990:239).

I would refine Lyng's point by noting that between "understanding" and "action for change" lies a wide gulf. In our complex society, "doing something" depends on a set of

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3. The third part of the document consists of a series of paragraphs of text, which appear to be a detailed description or analysis of the items listed in the previous sections. This text is written in a formal and professional style, typical of an official report or a scholarly work.

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practical tools, social capital and more than a few moments of tactical advantage. The structure of the conjuncture matters.

A related observation is that these higher status jobs currently receive the benefit of the doubt in relation to the question of “occupational stress.” A fascinating analysis of power could be conducted here, looking at the overall field of municipal work, categories of work within the field, and individual players. During the writing of this dissertation two separate stories were reported in the *San Francisco Chronicle* about police chiefs in Alameda and San Francisco counties leaving their jobs during major scandals and being permitted to “go out on stress” and ultimately receive a medical retirement for disability (Johnson 2004; Zamora and Williams 2003). It was obvious to anyone reading these reports that these medical retirements were deals cut for the powerful.¹⁰⁴ These stories highlight the politicized nature of the biomedical enterprise when it comes to the question of work-related stress.

Lessons for Health Educators. A third implication of my research is the lessons that it holds for health educators. There is a growing body of work across many social science disciplines offering a strong critique to the “rational man’ model upon which much social research on human behavior has heretofore been based. Kahnemann and Tversky’s

¹⁰⁴From Zamora and Williams 2003: “San Francisco Police Chief Earl Sanders will receive his entire \$209,000 salary tax-free while he is on medical leave, but for the other indicted offers – suspended without pay – the deal is none too sweet. Sanders went on medical disability leave Monday for what his attorneys described as high blood pressure...His attorney said Sanders also had heart problems that had been exacerbated by ‘stress stemming from this indictment.’”

From Johnson 2004: “In a closed-door meeting ...[Mayor] Armas laid out his exit strategy for Chief Calhoun. In a nutshell, the city made the decision to allow Calhoun to depart on a stress leave, to show a modicum of dignity....



work in economics (Tversky and Kahneman 1981; Tversky and Kahneman 1988) and Wilson's in psychology (1991), Lave's work in education (1988), Bloor's (and others') in medical anthropology (1995) have pointed out the deficiencies of this model. Elias and Bourdieu have also mounted critiques of *homo economicus* in the realms of social history and social theory (Bourdieu 1990; Elias 1994 [1939, 1968]). In the place of this skeletal figure of most psycho-social research, they have urged us to consider a fully fleshed person replete with "practical reason," a mode of acting in the world that is more fluidly attuned to social context, in which cognition is only a part of the explanation of why people do what they do. This point hinges on disturbing the false dichotomy between Reason and Emotion. Acknowledging that the reasons of the heart cannot be separated from Reason in understanding why people do what they do is the basis for formulating health interventions that have a chance at creating lasting change. In addition, in recognizing the social connections that inform these reasons of the heart, one sees the rough shape of a tool that might be brought to bear on the problem.

Interdisciplinary collaboration. Finally, this dissertation was written in conversation with many other fields, epidemiology, sociology and psychology chief among them, but also, as a work of medical anthropology, taking into account human biology as well. Though such a move fits my intellectual temperament, it is also in line with suggestions for the future direction of anthropology as outlined in an article published in *Anthropology News* (2004) about the planned keynote address of Robert Edgerton at the fall annual meeting. Edgerton advocated forcefully for interdisciplinary collaboration and for the need to train anthropologists in branches of human biology including neuroscience, while still arguing for the power of the qualitative ethnographic method, not as an adjunct

or handmaiden, but as a full partner in the scientific enterprise (Lathrop 2004). In this he reminds me of Bourdieu who wrote:

... social research is something much too serious and too difficult for us to allow ourselves to mistake scientific rigidity, which is the nemesis of intelligence and invention, for scientific rigor, and thus to deprive ourselves of this or that resource available in the full panoply of intellectual traditions of our discipline and sister disciplines (Bourdieu and Wacquant 1992:221).

In the present work I re-engaged Marcel Mauss's vision for the discipline – a study of the “total man” – a discipline incorporating the biological, psychological and the social in its analytical framework (Wacquant forthcoming). Knowledge production and application seem to spiral, expanding outward as they retrace the old forms, so there is no surprise that this look outward to the future first looks back at the past. The poets know it was ever thus:

We shall not cease from exploration
and the end of all our exploring
will be to arrive where we started
and know the place for the first time.

T. S. Eliot, “The Four Quartets”

APPENDICES

1. The first part of the document is a list of names and addresses of the members of the committee. The names are listed in alphabetical order, and the addresses are given in full. The list includes the names of the members of the committee, the names of the members of the sub-committee, and the names of the members of the advisory committee. The addresses are given in full, including the street name, the city, and the state.

APPENDIX A

GLOSSARY OF TRANSIT TERMS

AVOIDABLE - Bus accidents are categorized as **AVOIDABLE** or **UNAVOIDABLE** by the division safety instructor when they occur. They are also classed according to severity. Group (a) accidents are serious or major accidents involving a violation of traffic laws or Muni safety rules and Group (b) accidents are “all other accidents. An avoidable, Group A accident is one that an operator is “charged” with by the Division Superintendent, hence the additional term, **CHARGEABLE**. Operators having accidents so designated are subject to serious disciplinary consequences, including appearing at an Administrative Review Board (ARB) hearing..

C.I. - Stands for “compensated injury,” i.e., a work-related injury that is covered by workers’ compensation and/or other forms of insurance

CITY, the - City with a capital C refers to San Francisco, for example, “Are you going to the City to shop today?”

CONDUCTOR - The person who collects fares on the cable car. See also **GRIPMAN**.

DEADHEAD - To drive an empty transit vehicle, usually to a terminal point, or back to the division, at either the beginning or the end of a run.

CHARGEABLE - See **AVOIDABLE**

DISPATCHER - Dispatchers are **TRANSIT SUPERVISORS** who work in the division and who are responsible for time-keeping as well as day-to-day problem solving pertaining to assigning operators to runs. Transit operators must report in to the Dispatcher’s Office ten minutes before the beginning of their run; operators call in sick to the dispatcher. Dispatchers assign runs to operators who are driving off the extra board on the basis of the information they have about who is expected to come to work.

EXTRA BOARD - As in the term “driving off the extra board.” These are fill-in jobs covering the runs of operators who have called in sick, are on vacation, or who have failed to show up for work. The extra board is subdivided in regular and floating. Regular means that you are covering for someone who is out on vacation or extended sick leave and you are working the same run everyday. When you drive off the floating extra board, you don’t know what your run assignment is going to be until you report in each day

FOLLOWER - The bus behind you along a given route. See **LEADER**.

GILLEY ROOM - The transit operator's gathering place at each division. Gilley derives from the Gaelic, *gille* or *giolla*, meaning "boy" or "fellow," and this term reflects the history of public transit, when stable-boys were an important part of the operation. Muni gilley rooms vary from one Division to another. Usually there is a separate quiet area, for operators to take rests during their SPLITS. The main area usually contains lockers, a kitchen area with refrigerator, coffee-makers, snack vending machines, tables and chairs for congregating and often times, a television or two.

GRIPMAN - The operator of a cable car. The term refers to the lever which the operator controls which "grips" the cable running underneath the car, enabling it to move. Cable cars always have two people working them. See also CONDUCTOR.

HEADWAY - Headway is the scheduled interval of time between transit vehicles on a given route. Length of headway varies with time of day, shorter during run hours, longer in midday and evenings.

INBOUND - headed toward downtown

LEADER - The bus ahead of you along a given route. Maintaining proper headway between leaders and followers is crucial to the smooth operation of a transit line. Though it appears to be a simple task, it is deceptively difficult. One of the main jobs of a street supervisor is to monitor this flow.

LINE TRAINER - Operators who take the prescribed course and pass the test can sign on to line trainer runs, and will be asked to take on "students," that is, operators-in-training. Line trainers receive four dollars an hour above their base pay rate when they have students on their runs with them.

MISS-OUT - If an operator does not report for work ten minutes before the beginning of his run (there is a one minute grace period), technically that behavior can be termed a miss-out and his or her run can be given to a floating extra board operator. In practice, lateness is tracked (an occasionally disciplinary action taken), but usually it is not called a miss-out unless the operator fails to show up for work at all.

MUNI MAIL - This is official correspondence from the Muni administration, usually a notification of a PASSENGER SERVICE REPORT (PSR) or a disciplinary hearing.

OLD TIMER - An experienced operator; a SENIOR OPERATOR

OUTBOUND - headed away from downtown

OUTFIT - The outfit is the packet of material a transit operator picks up from the dispatcher at the beginning of his or her shift, usually consisting of the PADDLE, several books of transfers, and occasionally a piece of mail, usually MUNI MAIL.

PASSENGER SERVICE REPORT, PSR - Passenger service reports are comments usually complaints, either called in or sent into to Muni. They come in two flavors, “major” or “minor.” Examples of major PSRs are allegations of an operator driving under the influence of alcohol or drugs, “vicious conduct,” an Americans with Disabilities Act complaint, an operator using a radio or cell phone while in revenue service. A complete list is the Memorandum of Understanding (the union contract). A minor PSR is anything not included on the major PSR list.

PADDLE - The paddle is the sheet that lists a specific bus run’s schedule times to be at major intersections and terminals. See Figure X, Chapter Two.

PROPERTY, ON THE - The property is slang for the premises of the Municipal Railway. You will often here the expression, “When I first came *on the property*,” meaning, when I started working for Muni

PULL IN - The act of driving a transit vehicle into the barn or yard at the end of a run.

PULL OUT - The act of driving a transit vehicle out of the barn or yard at the beginning of a run.

RDO - RDO is the commonly used acronym for REGULAR DAYS OFF. Many operators make work at least one of their RDOs a week, guaranteeing themselves time and one-half overtime.

RECOVERY TIME - I.e., *schedule* recovery time. This is time allotted by the scheduling department for catch up at the end of a half-trip.

RELIEF POINT - This is the location along the route where operators meet buses and take over for the driver. This is sometimes at the end of one operator’s shift and the beginning of another’s; but it also happens when an operator has scheduled an appointment that the dispatcher can calculate into his planning in advance. Relief points are often route terminals, but sometimes they are at major intersections mid-route.

REPORT IN - The designated time for operators to show up for work and report in to the dispatcher’s office is ten minutes before the beginning of their runs.

RUN - A run is a specific chunk of a transit schedule than an operator can sign-up for during one of the four annual sign-up periods. In selecting a run, an operator knows exactly what his or her work shift will be – REPORT-IN time, bus route,

length of SPLIT, etc. Such selections are made by seniority during sign-up periods. Operators often refer to high-paying or “low-paying” runs, as compensation is a priority variable in run choice.

RUNNING SHARP - Running ahead of the scheduled time. Transit operators can be written up by transit inspectors for being more than one minute ahead of schedule or more than four minutes behind. Three write-ups in a quarter results in suspension from work for a day, thereby losing a day’s pay.

SENIOR OPERATOR - An operator with mor than twenty years’ service at Muni; a very experienced operator.

SPLIT - A split shift is a work shift with hours divided into two or more working periods separated by time between that is greater than normal time off for a break or lunch. The time in the middle is referred to as the split. The regular work day at Muni is “eight in ten,” that is eight hours of work spread over a maximum of ten hours – i.e., a *maximum* two-hour split in the middle of the shift. If the split is longer than two hours, operators are paid time and a half overtime for the extra time.

STALE YELLOW - A stale yellow is a yellow light that is about to turn red.

SWINGING LOAD - A bus full of standing passengers

T-STICK - This is the main implement for accelerating and braking on the new models of light rail vehicles, controlled with the left hand.

TAKE THE TEST - Take a Civil Service Exam to qualify for promotion to supervisory status.

TRANSIT SUPERVISOR - This is the first line category of supervisory personnel, often referred to by their job class number, “9139”. Street supervisors monitor bus schedules, solve immediate problems related to traffic difficulties, disable or unsafe buses and other tasks as necessary. They also have authority over transit operators and can “write them up” for rule infringements, including such things as “unprofessional appearance,” e.g. wearing one’s shirttails out.

TRANSVERSE SEATS - On a transit vehicle, these are seats that face out onto the aisle rather than forward

TRIP - A trip is defined as one complete roundtrip of a given bus route. Going from one terminal to the other is defined as a HALF-TRIP. In practice, the terms trip and half-trip are sometimes used to describe the same distance.

UNAVOIDABLE - See AVOIDABLE.

WRITE UP - A write up is any supervisor's written report of a rule infraction which is placed in a transit operator's personnel file.

YARD STARTER - A yard-starter is a Muni employee who assigns transit vehicles to operators after they report in to work.

APPENDIX B

COMPARISONS OF 40' V. 60' BUSES

(From Municipal Transportation Agency 2000, Figure 23, "Fleet Program.")

Size	Year Purchased	Mnfr.	CAPACITY		Total	Wheelchair Positions
			Seated	Standing		
40'	1984	Flyer	40	35	75	1
60'	1984	MAN	57	55	112	1
% increase, seated v. standing			42% (17/40) 57% (20/35)			
40'	1989	New Flyer	40	37	77	2
60'	1991	New Flyer	52	81	133	1
% increase, seated v. standing			30% (12/40) 119% (44/37)			
40'	1999	Neoplan	38	47	85	2
60'	2001	Neoplan	55	73	128	2
% increase, seated v. standing			45% (17/38) 55% (26/47)			

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The findings of the audit indicate that there are several areas where improvements are needed. These include enhancing internal controls, improving the accuracy of financial reporting, and strengthening the overall governance structure. The recommendations provided aim to address these issues and ensure the organization's long-term success.

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2. Key Objectives

The primary goal of this initiative is to streamline the reporting process and reduce the time and effort required to compile and analyze data. By implementing a standardized system, we aim to improve the accuracy and reliability of our financial reports.

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3. The document also covers the importance of regular audits and reconciliations to ensure the accuracy and integrity of the financial records.

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2. The second part of the document outlines the various methods and tools used to collect and analyze data. It highlights the need for consistent data collection procedures and the use of advanced analytical techniques to derive meaningful insights from the data.

3. The third part of the document focuses on the role of technology in data management and analysis. It discusses how modern software solutions can streamline data collection, storage, and processing, thereby improving efficiency and accuracy.

4. The fourth part of the document addresses the challenges associated with data management, such as data quality, security, and privacy. It provides strategies to mitigate these risks and ensure that the data remains reliable and secure throughout its lifecycle.

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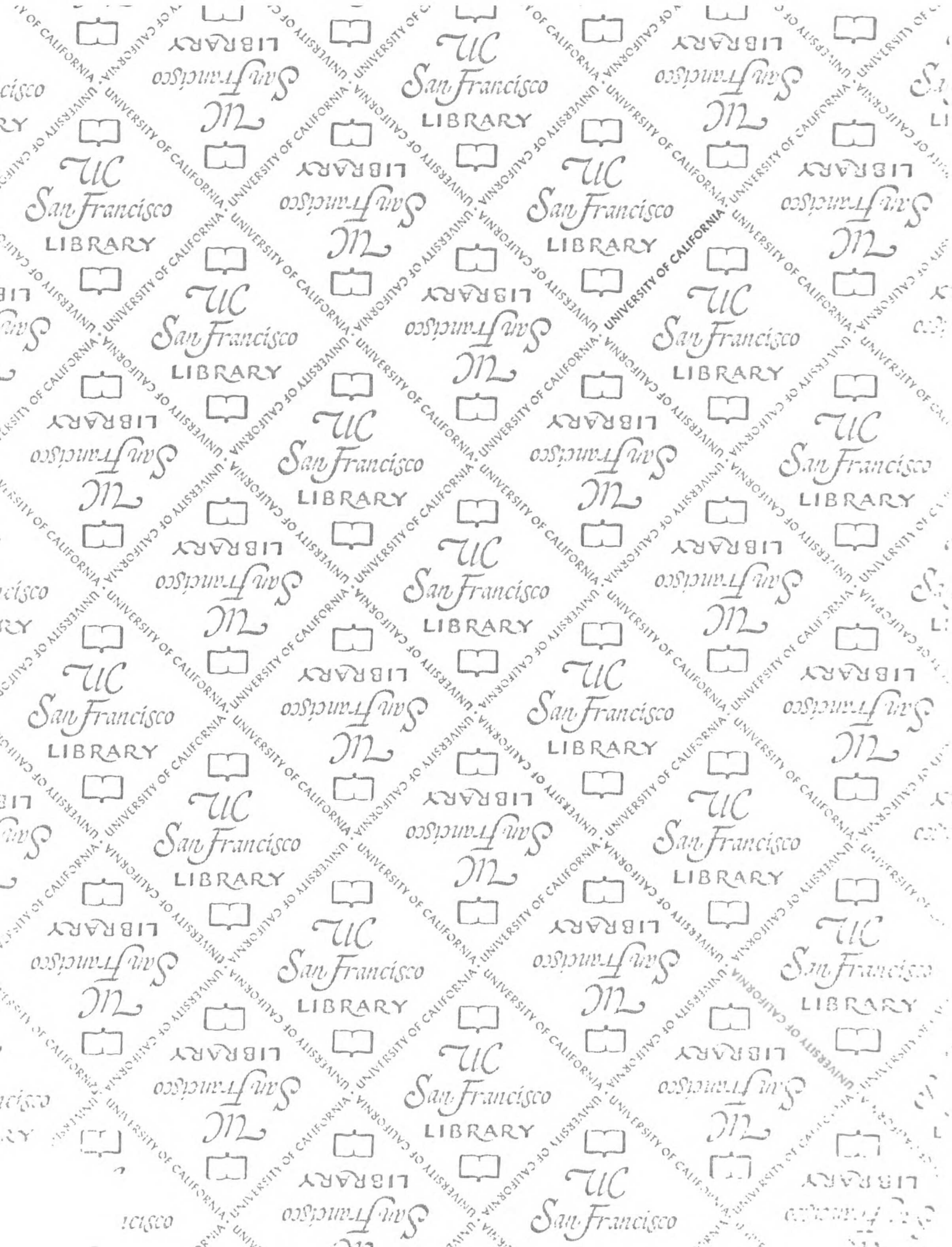
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