INTRODUCTION

Pragmatics of Scale

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In the first place, I wish to lay before you a particular, plain statement, touching the living bulk of this leviathan, whose skeleton we are briefly to exhibit. Such a statement may prove useful here.

According to a careful calculation I have made, and which I partly base upon Captain Scoresby's estimate, of seventy tons for the largest sized Greenland whale of sixty feet in length; according to my careful calculation, I say, a Sperm Whale of the largest magnitude, between eighty-five and ninety feet in length, and something less than forty feet in its fullest circumference, such a whale will weigh at least ninety tons; so that, reckoning thirteen men to a ton, he would considerably outweigh the combined population of a whole village of one thousand one hundred inhabitants.

Think you not then that brains, like yoked cattle, should be put to this leviathan, to make him at all budge to any landsman's imagination?

—Herman Melville, *moby-dick*

How can one man fathom the sheer magnitude of a sperm whale when all that lie before him are skeletal remains? Melville forewarns that landsmen are not equipped to imagine something so great, their brains being yoked like cattle when it comes to matters of scale. Thus, he assigns his narrator, Ishmael, a daunting task—that is, to *communicate* the leviathan to those who cannot see, nor even imagine it for themselves.

To that end, Ishmael is intent on producing a "particular, plain statement" that "touch[es] the living bulk." At first, he resorts to measurement. He makes a "careful calculation" of the whale's length and circumference, converting what one could measure of the bones with certain equipment on hand to the weight of the behemoth's past flesh in tons. Ishmael grows the whale by way of numbers, thus relying on the authority of quantification. Still, this quantification is apparently not enough, since Ishmael exploits professional allegiance as well as arithmetic to do his scalar work. His calculations are based on citing, and relying upon, Captain Scoresby, whose surname not so subtly suggests that quantifications must be

socially qualified. In this, Ishmael concedes that the problem of scale eludes any hope of unadorned description. He finds that he must rely on rhetoric to make big and render real both the bygone "living bulk" and the actual skeletal remains that now stand before him.

Sensing that neither the appeal to maritime expertise nor the cool, authoritative objectivity of measurement can transport the innumerate landsmen, Ishmael offers a poignant analogy so as to better apprehend the whale's greatness. He scales the whale in reference to the human body: one ton, he reckons, equals thirteen men, which means that the whale "considerably outweigh[s]" a whole village. Through this calculus, he zooms out from the most immediate comparable unit, the whaler's own body, until he reaches that of a village, thereby offering a palpable sense of enormity. Ishmael thereby dwarfs, in aggregate, the members of his audience, just as he once had been dwarfed by the towering beast in the awesome event of the still unanalyzed encounter. In other words, his exercise in scale is a lesson in perspective, an attempt to get his land-bound audience to see what and how the whaler has seen. After all, if the leviathan is to be made myth out of a single man's phantasm, the whaler's calculations must be collectively apprehended.

In describing the whale, he goes on to suggest that there is something enduring, if not eternal, about its qualities, thereby further enriching a statement that once promised to be simple, empirical, plain. Scaling, it turns out, may organize not only spatial relations but spatio*temporal* ones as well. Indeed, when one tries to apprehend things and their qualities, a present moment may be linked to and authorized by a moment figured far back or projected forward in time. In order to determine when and where we are, we may evoke a grand continuity, if not an evolution. The scaling of the whale in temporal terms is evident as Ishmael continues:

> There are forty and odd vertebrae in all, which in the skeleton are not locked together. They mostly lie like the great knobbed blocks on a Gothic spire, forming solid courses of heavy masonry. The largest, a middle one, is in width something less than three feet, and in depth more than four. The smallest, where the spine tapers away into the tail, is only two inches in width, and looks something like a white billiard-ball. I was told that there were still smaller ones, but they had been lost by some little cannibal urchins, the priest's children, who had stolen them to play marbles with. Thus we see how that the spine of even the hugest of living things tapers off at last into simple child's play.

Here we see that a ready sign of frailty, of death—a creature's very skeleton—is represented as that which endures like heavy masonry. Indeed, Ishmael begins this passage implying there is something mighty, if not godly, in the Gothic construction of the whale. However remote to the imagination the creature may at first have seemed, note that the leviathan is ultimately rendered approachable by even the most ungodly among us, from pool sharks to cannibal urchins.

Note further how Ishmael offers this gift of perspective to his audience by way of explicit comparisons, reminding us that scaling not only involves manipulating standardized measures but deploying metaphor as well. In tracing the vertebrae, Ishmael moves analogically from spirelike majesty to childlike play, and from the solid, heavy greatness of the past to a highly malleable, quotidian present. He sets before the mind's eye an array of things whose qualities and relations give both the impression of a great spatial and temporal scale, and a vantage from which to study it, a view from *somewhere.* The passage thereby reminds us that, as human beings, we are uniquely endowed with the powers of perspective, which unyoke the imagination and allow us to steal, play with, and ultimately manage even the most initially awesome spectacles of our worlds. After all, we can see that the huge is but a marble or a pool ball if we look at it in a certain way. When we *scale,* we orient, compare, connect, and position ourselves so that "even the hugest of living things tapers off at last into simple child's play."

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Like Melville's account of one eloquent oarsman, this volume demonstrates that the scales that social actors rely upon to organize, interpret, orient, and act in their worlds are not given but made—and rather laboriously so. For *to scale* is not simply to assume or assert "bigness" or "smallness" by way of a ready-made calculus. Rather, and as we have seen above, people use language to scale the world around them. Indeed, even the greatness of whales must be discursively forged out of comparisons and distinctions among potentially scalable entities (bones, men, villages, spires, billiard balls) and qualities (weight, height, length, circumference, and structural integrity). Although things can be made big though analogy, scale-making always also entails drawing distinctions, between the bigness of a whale's rib and the smallness of a marble, for instance. As an inherently relational and comparative endeavor, scaling may thus connect and even conflate what is geographically, geopolitically, temporally, or morally "near" while simultaneously distinguishing that nearness from that which is "far." Similarly, scaled hierarchies are the effects of efforts to sort, group, and categorize many things, people, and qualities in terms of relative degrees of elevation or centrality. Think, for example, of the way one entity or domain seems to encompass another, as with maps that subordinate localities within higher order administrative units, or of the way nation-states are commonly thought to hover "above" communities.

The fact that scaling involves vantage points and the positioning of actors with respect to such vantage points means that there are no ideologically neutral scales, and people and institutions that come out "on top" of scalar exercises often reinforce the distinctions that so ordained them. In other words, the scales that seem most natural to us are intensively institutionalized, and that is why collectives

readily accept that the leviathan of the State or God hovers above landsmen, or that one realm of political or ritual authority encompasses another. Yet people are not simply subject to preestablished scales; they develop scalar projects and perspectives that anchor and (re)orient themselves. Working from the premise that scale is process before it is product, this volume is dedicated to explaining how, why, and to what ends people and institutions scale their worlds.

THE PROBLEMS OF SCALE

Over the last several decades, a diverse group of scholars across a range of disciplines have suggested that scholarly analysis is yoked by limited understandings of scale.[1] For instance, the problem of scale has been taken up concertedly in cultural geography so as to liberate "procrustean research that attempts to fit complex spatial politics within the narrow confines of a handful of conceptually given scales such as the local, national or global" (Moore 2008, 211; see also Marston 2000; Taylor 1982). Critical geographers, like Erik Swyngedouw, have underscored that "scalar configurations [are] the outcome of socio-spatial processes that regulate and organise social power relations" (2004, 26). And, in an effort to capture the manifold ways in which actors can in turn manipulate and sometimes defy the scalar formations they confront in social life, geographer Neil Smith wrote a set of influential essays on scale-"jumping" (1992) and scale-"bending" (2004).

Critical theorizations of scale can be found in a number of other disciplines, if far too rarely. In gender studies, the division of the "private" and "personal" versus the "public" and "political" has been addressed as a problem of scale, with scholars working to add empirical and theoretical weight to the feminist adage that the personal *is* political (e.g., Berlant 1997, 2008; Gal 2002; Steedman 1987). Many in science studies have insisted that in order to theorize the travels and translations of forms of knowledge, informants' scalar distinctions, like "bench-to-bedside," must be interrogated rather than simply adopted (Sunder Rajan, and Leonelli 2013; see also Lynch 1985; Yaneva 2005). And in sociology, the enduring methodological standoff between the "macro" and the "micro" has led to a number of recent proposals, perhaps most prominent and compelling of which is Michel Callon and Bruno Latour's Actor Network Theory, which begins with the assertion that there are no intrinsic differences between these so-called domains of sociological study (Callon and Latour 1981; Callon 1986; 2013; Latour 2005; see also Knorr-Cetina and Cicourel 1981). The task of the analyst, they further suggest, is to leave behind a priori scalar distinctions and instead empirically track how social actors carve and cleave—or *scale*—their worlds.

The problem of scale has long been a concern in anthropology as well, as we attempt to connect what we conceive as events with the *longue durée,* fleeting

face-to-face interaction with durable social institutions, or the long arm of global media with discrete points of its putative reception. In a sense, anthropology from its inception has been preoccupied with matters of scale, focused as we have been on questions about what is particular to the places and peoples we study, and what, if anything, is shared by humanity as a whole. For over two decades now, ethnographies of globalization have complicated cartographies that break the world into discrete nation-states and exposed networks and flows that may intersect with such official geographies of power but are often orthogonal to them (for example, Appadurai 1996; Clifford 1997; Chu 2010; Helmreich 2009). For instance, Arjun Appadurai's (2006) *Fear of Small Numbers* reflects on the manner in which "cellular globalization," whether that of "terror" networks or transnational activists, threatens to dispense with the nation-state, for ill and for good. Similarly, in *Alien Oceans*, Stefan Helmreich underscores that the "local and global are effects—not preconditions of how genome science [that he studies] is narrated" (2009, 173).

A few anthropologists have concertedly and critically examined the scalar habits of the discipline. For instance, Marilyn Strathern, who defines scale as "the organization of perspectives on objects of knowledge and enquiry" (2004, xvi), suggests that anthropological analysis is, in its very essence, a scale-making endeavor. It is so because ethnographers must find ways to cope with cultural complexity so as to make it legible, and to do so, we tack back and forth between different ways of looking at the same things, whether through different sets of eyes, with different degrees of focus, or with different ways of relating to our object, as distinctive, singular, composite, or metonymic.

Anthropologist Anna Tsing, who originally took up the notion of scale in her 2008 book *Friction,* worries that "*scale* has become a verb that requires precision; to scale well is to develop the quality called *scalability,* that is, the ability to expand—and expand, and expand—without rethinking basic elements" (2012, 505; see also 2015). What is lost, she asks, when we continue to think in metonyms, as if the corporation is just a "bigger" version of the individual, for instance? In light of these questions, Tsing urges anthropologists to interrogate "ideologies of scale" (2000, 347) and attend to "scale making" projects (2000, 2012, 2015). Along similar lines, James Ferguson (2006) has written about how stubborn "topographies of power"—that is, conceptual scales that project that the international, national, and civil stand in tiered relationship—make it difficult if not impossible for analysts to track how contemporary African politics actually unfold, as nongovernmental organizations use state letterhead and guerilla armies fight having been trained in China and funded by American right-wing churches. Like Latour and Callon, he suggests that social analysts should be prepared to travel analytically on a "flatter" terrain in order to appreciate how scales are produced and used to structure knowledge and social relations.

Indeed, anthropologists have grown increasingly impatient about scale as a heuristic, though alternative analytics have been hard to come by. Consider an essay in the journal *Cultural Anthropology,* in which one young anthropologist notes that many in the Occupy Movement have been captivated by the scalar antinomies of "the local" and "global," geopolitical categories that they then ethically elaborate into a narrative of the corrupt "They" of global finance versus the communal, democratic, activist "We" (Glück 2013). He urges anthropologists to follow the lead of the most sophisticated of the Occupy activists, who have jettisoned such seductive scalar tropes and refocused their energies on reimagining and erecting alternative scalar formations like "interurban" networks and "Inter-Occupy." This pragmatic approach to questions of scale can be found in a handful of recent ethnographies, such as Timothy Choy's (2011) account of how Hong Kong environmentalists build scalar analytics through which they can project various forms of "specificity," and Stefan Helmreich's (2009) ethnography of marine biologists' fascinating attempts to scale the sea. This important work notwithstanding, even those of us anthropologists who document scale-making projects still regularly slip back into assuming that scales are ontological givens, suggesting their stubborn grip on our thinking.

In linguistic anthropology, more specifically, a critical interest in scale began to emerge as the spatiotemporal boundaries of its objects of analysis—such as "language," "discourse," "interaction," and the "speech event"—were questioned rather than assumed. The rediscovery of Mikhail Bakhtin's writings encouraged attention to the pervasive presence of other voices in what apparently single speakers say and made it difficult to maintain that speech is ever anchored in any one place and time. Accordingly, research in the past decade on "interdiscursivity" and "intertextuality" has stressed just how porous the spatial and temporal boundaries of communicative events can be. Rather than treat episodes of communication as if they were always already neatly circumscribed, linguistic anthropologists have instead effectively explored how event boundaries and interevent relations are forged by actors through discursive practice itself (see especially Agha 2005). Indeed, the actors we study habitually point to, cite, reanimate, and repurpose text and talk that they understand to be located "elsewhere" in time and space, thereby troubling our very sense of where they stand. In taking seriously actors' busy event-linking, relation-making labor, one acquires a keen sensitivity both to process and practice, a sensitivity that we, in this volume, share.[2]

In sociolinguistics, some scholars have turned to scale to expose how languages under globalization are "organized on different, layered (i.e., vertical rather than horizontal) scale-levels" (Blommaert 2010, 5), an insight indebted in part to Wallersteinian world-system theory. Indeed, standard languages are frequently imagined and institutionally positioned as translocal compared to other language varieties, which has obvious consequences for the perpetuation of social and

political inequities, given that competence in a standard language is unevenly distributed in multilingual nation-states. In this sense, language is seen as a resource that enables or inhibits scalar mobility. Sociolinguistic research also considers how actors negotiate and sometimes help reproduce preexisting scalar formations with the aid of language. For instance, Jan Blommaert (2007, 6) offers this elegant little illustration:

> Student: "I'll start my dissertation with a chapter reporting on my fieldwork."
> Tutor: "We start our dissertations with a literature review chapter here."

The tutor, explains Blommaert, (2007, 6), performs what he and others call a "scale-jump" "in which s/he moves from the local and situated to the translocal and general, invoking practices that have validity beyond the here-and-now."

A sensitivity to language, combined with an attention to the capacity of actors to negotiate scalar distinctions, is notable in Charles and Clara Mantini-Briggs's (2004) ethnography of conspiracy narratives in the 1992–1994 cholera epidemics of eastern Venezuela. They describe how health officials racialized indigenous victims, blaming their indigeneity for their failure to distinguish natural from cultural causes of disease and their habit of turning to traditional healers when they should have chosen biomedical care. Assumed by the state to be trapped by this dense locality, indigenes responded defiantly. Specifically, they hatched conspiratorial narratives, which "involve impressive leaps of scale, as they connected the deaths of relatives and neighbors with racial conflicts, national policies, international relations, and transnational corporations" (Briggs 2004, 175). Not only did their stories about cholera seem to "leap" between what was already understood to be local and global (a common feature of conspiracy reasoning, as Fredric Jameson [1992] and others have remarked [Marcus 1999]), but they often did so with such force that they pierced that scalar imaginary itself, "making the notion that members of 'traditional' communities cannot see beyond local horizons or rigid cognitive patterns and fixed points of reference seem ludicrous" (Briggs 2004, 175). The question remains as to whether the now common trope of "leaping" or "jumping" scales (see also Smith 1992) denaturalizes or reifies the scalar divides being crossed.

In pursuing the ethnography of scale, we will inevitably find that tropes like scalar "leaps" or "jumps," or the often-used idea of scaling "up" or "down" do not mean any one thing across cases and should not be treated as stable analytic terms. Furthermore, these tropes hardly exhaust the dynamics of scale but rather invite us to recognize that there is much more drama to scale—plot and character, stakes and consequences—than generic, analytical scalar distinctions suggest. In all these cases, we want to remain critical when actors or analysts naturalize what they claim to cross, bend, or leap over, as if such scales were always already there, waiting to be inhabited, manipulated, or traversed.

SIGN ACTIVITY AND THE (UN)MAKING OF "MICRO" AND "MACRO"

Despite all these thoughtful interventions, the problem of scale persists in anthropology and beyond. Think, for instance, of the continued adherence to the macro-micro distinction and tendency to assign political economy to the former, face-to-face interaction to the latter. Think, too, how we continue to divvy up academic labor accordingly and not uncommonly with a lack of respect "as when anthropologists alternate between accusing one another now of myopia, now of panoptics" (Strathern 2004, xv). This disrespect stems in part from a conviction that scalar perspectives in scholarship, institutionalized as they are in our disciplines (e.g., micro versus macro sociology or history or economics), limit what and how we can see and know. Disciplinary scaling is felt to have epistemological and, by extension, ethicopolitical consequences. Ignore, say, the capitalist world-economy, and we will fail to see the real, systemic causes of inequality, making our research not just blinkered but complacent. Alternatively, humanist critics typically complain, for instance, "that analysis in terms of the world-system entails a fatal disrespect for culture, or subjectivity, or difference, or agency, or the local" (Palumbo-Liu, Robbins, and Tanoukhi 2011, 5).

Again and again, we find ourselves intellectually stymied in micro-macro standoff. While many of us feel that such a priori scaling of social and intellectual life is unproductive, even obfuscating—and have had plenty of reminders that this is so—we continue to rely upon categories such as macro and micro as if they were something other than the products of our own or others' classifying activities (cf. Barnes 2001). We ontologize scalar perspectives, rather than ask how they were forged and so focused. Indeed, it is all too easy to proceed with our analyses as if the oft-critiqued but still-convenient tiers of macro, meso, and micro were the ready-made platforms for social practice, as if social life simply unfolded in more or less intimate, proximate, local, grounded, or contained situations.

How might we open up analyses beyond these stubborn scalar distinctions so that we are then in a position to understand the scalar practices of social life? This volume responds by paying special attention to the semiotic means by which social actors and analysts scale our worlds. In doing this, we circumvent familiar prejudices about the purportedly inherent micro scale of signs, including the widespread assertion that the origin of language is in the minds of discrete individuals, or that face-to-face "interaction" is inescapably local. After all, such a view scales language use before our investigation can even begin. Nor do we assert that sign behavior is somehow foundational—a view that would risk smuggling back in the idea that semiosis is somehow underneath other, more macro orders of existence, perhaps even generative of them.

Rather, we take a semiotic approach because we regard it as an especially powerful ethnographic strategy for showing how scale is a practice and process before

it is product. Inclined to explore how event-boundaries and social relations are forged, figured, and sorted by actors through their discursive practice, we can elucidate the *process* of scaling with marked clarity. Ethnographically, the chapters that follow document the complexities of scale as it is produced and experienced in the social worlds we study, challenging the presumed fixity of ready-made analytic scale(s). Embarking from the conviction that social analysis should resist the urge to "settle scale in advance" (Latour 2005, 220), we are especially interested in elaborating the work required to bring scale into being and make it matter in social and cultural life. Accordingly, we do not wish to pin down the definition of scale or list all possible scalar distinctions, nor even to catalogue the ways it is made in the fields that we study. Instead, we encourage an empirical and theoretical openness to learn about social life and action by examining the diverse ways that scales are conceived, cultivated, practiced, and institutionalized.

THE PRAGMATICS OF SCALE

To attend to the *pragmatics of scale* means—most fundamentally—to take a critical distance from given scalar distinctions, whether our own or others', and focus instead on the social circumstances, dynamics, and consequences of scale-making as social practice and project. Since scales are the more or less stable effect of people's conceptual and practical labor, we begin with an inquiry into how the fields we study have been scaled as they have, whether in relation to the bigness of a whale, the intimacy and efficacy of a communal here and now, or the qualities of some media that prompt people to call it "mass." We assume that the scales we encounter in our studies have been built—that is conceptualized and materialized—for the convenience of scale-makers, as pragmatists in their own right. But since scale-making projects are also often institutionalizing projects, in which a particular way of seeing and being is socially enforced (Gal this volume; Irvine this volume), we are especially careful to attend to power in the pragmatics of scale—that is, how some positions and perspectives are privileged at the expense of others as scales are institutionalized.

If in one way our approach to scale is pragmatic in the most colloquial sense of analytically prioritizing situated practical matters over general principles, readers may also find evidence of an affinity with, if not an allegiance to, the early American pragmatism of writers such as Peirce, James, and Dewey. Along these lines, this volume examines not just how scale materializes but also how and why scale *matters.* Indeed, the chapters that follow ask what scalar distinctions illuminate for social actors, empirically speaking, and how these distinctions serve as the basis of practical action. After all, scales are useful, in part, because they help people orient their actions, organize their experience, and make determinations about who and what is valuable. As we will see, scaling can allow us to imagine some

things, encounters, or events as status elevating, as Silverstein (this volume) shows for wine and wine talk, or democratizing and intimate, as Bauman (this volume) shows as he chronicles William Jennings Bryan's populist speaking tour in 1896. Communities can be constituted in part by scalar regimes, as when a nation-state engaged in a politics of recognition uses scalar methods to monitor and "respect" the health of its minority citizens (Meek this volume). To be sure, scales are ways of seeing and standing in the world, and as such, they are also instruments for political, ritual, professional, and everyday action. Consider that the whole field of American social work education has been organized into subfields of micro-, meso-, and macro-level practice. To study scale, then, is to examine how the ideals of social life stand in tension with notions of what is practically achievable. In this sense, we treat scale as a problem that social actors, as pragmatists in their own right, seek to solve.

Last but not least, we speak of a *pragmatics* of scale to signal our interest in sign behavior as an especially effective material for scale-making. Yet whereas pragmatics, as a branch of linguistics, is perhaps best known as a method for demonstrating the influence of social context on meaningfulness, we do not wish to assume context in advance, but instead look at how contextual boundaries are discursively drawn by social actors who differentiate one place, time, social position, or experience from another. In other words, we are centrally interested in how scales are assembled, made recognizable, and stabilized through various communicative practices. For if it seems obvious that a whale is huge, we must remember the semiotic labor of one whaler stitching together a mass of bones with so many discursive threads.

This is not to say that scaling work is made up simply or exclusively of human sign activity: after all, there are actual skeletons of sperm whales on beaches, even if they have to be *made big* by the semiotic work of scaffolding bones, tons, men, masonry, village, and spire. Accordingly, this volume insists that the study of scale ought to be expansive in what it considers, since scaling projects typically rely on complex, heterogeneous, and sometimes far-flung assemblages that include extradiscursive forms. For instance, think of the multiparty enactment of that mass sporting ritual which makes what appears to be a single wave ripple sequentially across the surface of a teeming crowd. This is scaling-as-sign activity, par excellence. Nevertheless, the wave is impossible, or at least unrecognizable, without the contributions of the ovoid structure of the stadium, the seats arranged in columns and rows, not to mention the moveable limbs of the human participants. In the pages that follow, we give empirical attention to how bodies, technologies, commodities, communities, ecologies, and built environments afford scalar practices and impose limits on those who try to scale them, while nevertheless appreciating that anything can be made big, brought near, or perched atop a hierarchy. Thus, the point of our semiotically oriented pragmatics of scale is neither to cordon off

matter from media, nor to collapse the two. Rather it is to take seriously how scaling reaches across and draws together many kinds of participants.

Scholars of all stripes find tempests in teacups, cosmologies in landscapes, social orders in an architectural motif, race or gender or class in an accent. Aren't we all sometimes guilty of feats of scalar magic that depend on our assumptions about the natural scale of things? In promoting a pragmatics of scale, the authors convened in this volume have become keenly aware of how the division of academic labor can prescale our objects of knowledge, thereby supplying us with such assumptions. Methodologically, we therefore engage the study of scale as a reflexive endeavor. For only when we keep careful track of the scalar dimensions embedded in our own habits of analysis can we identify the degree of congruence and tension between our own and others' uses of scale. And ultimately, if we are to show how scales are made evident and effective in social life, we need more inductive, empirically grounded studies of how *scalar projects* socially and ideologically unfold and to what effect.

SCALAR PROJECTS

Social actors not only construct and feel their worlds in scalar terms but also conduct themselves—and try to affect others—accordingly. They have scalar projects, which they engage with varying degrees of reflection. Some of the essays in this volume highlight instances in which social actors take for granted the scalar categories that they build and by which they abide, treating them as if they were always already grounded in nature, inscribed by law, or endowed by the divine. Other chapters focus on instances of scalar innovation: political projects, religious rituals, legal rulings, or marketing strategies that centrally involve manipulating accepted relations of scale so as to achieve particular ends. Richard Bauman's chapter illustrates this well. He chronicles the pioneering scaling-making effort of two-time Democratic presidential candidate William Jennings Bryan, who turned to trains in 1896 and the phonograph in 1908 in a "Herculean" effort to build a voting public. We see serial aggregation at play as the politician takes to the tracks, travels the rails from town to town, and collects as many voters as possible. Yet readers will note that Bryan also aggregates with his words, as when he mentions to audiences at one stop where he has been and where he will go, thereby inviting his immediate audience to locate themselves within a projected "mass." As in the scalar calculus of Ishmael, aggregation is aided by other forms of arithmetic: Bryan shortens his speeches to reach more stops and more people. The frantic pace of the tour is itself communicative of the populist principle of equation, demonstrating that no one stop is more important than another, that he speaks to the "people" and not especially to elites. He benefits from the multiplying effect of newspapers, word of mouth, and his radiating charisma. Through this scalar project, Bryan performs the very principles of democracy.

Michael Lempert's chapter also chronicles an ambitious scalar project, with an eye on the sentiments of those who encounter it and the principles it performs and seeks to produce. Since his exile to India in 1959, the Dalai Lama and like-minded diasporic Buddhist reformers have tried to "expand" the practice of debate—a brash face-to-face argumentation in which monks wrangle twice daily about philosophical doctrine—that has long been central to the curriculum of monasteries of the dominant Geluk sect of Tibetan Buddhism. This practice, its reformers argue, helps inculcate a certain critical rationality—an attribute claimed to be at once Buddhist in origin and consistent with the hallowed faculty of reason celebrated by the European Enlightenment. As Lempert argues in his chapter, reformers promote Tibetan Buddhist debate as a diasporic pedagogy with "universal" relevance, therefore capable of reaching new categories of subjects. Yet despite the aspirations of this scalar project, most Tibetan refugees find the project backward, forever tied to a premodern Tibet.

Indeed, scales can fail, or at least fail to achieve their purposes. After all, Bryan was never elected president. And the diasporic ambitions of Tibetan debate were undermined by a counterdirectional temporal scaling that dragged the practice back in time. With such examples in mind, we would do well to recall the vulnerabilities of scalar projects and the communicative labor needed to make them plausible and sustainable.

INTERSCALAR RELATIONS AND INSTITUTIONS

With the pragmatics of scale put front and center, several challenges in understanding scale come into sharper focus, the most obvious and unsettling of which is that "scale" never means one thing. It is not only that many aspects of social life can be and are scaled (space, time, politics, publics, and interactions of all types); it is also that people employ different *senses of scale* when they engage in scalar practice.

The chapters that follow highlight several distinct analytics of scale commonly used in both social and scholarly life. Mensural scales, for example, are commonplace in the social and applied sciences and include all sorts of methods for measuring and ordering attributes, whether quantitatively and ordinally—as with Likert scales that ask respondents to rank how much they agree or disagree—or qualitatively and nominally, using scales that assign categorical values to numbers without ranking them (i.e., male = 1, female = 2; or blood type A = 1, B = 2, AB = 3, O = 4). Arguably, exercises in quantification are quintessentially scalar to the extent that they claim to capture phenomena in the most "general" terms, implying that qualitative accounts simply fill in the details of the outlines that quantification provides. As Barbra Meek's chapter shows, government-funded Kaska language revitalization efforts in Canada's Yukon Territory centrally involve

mensural scaling, through which bureaucrats monitor the health of indigenous languages and allocate resources accordingly. For this they need language experts, who are motivated by and help feed an "acute awareness of the shrinking numbers of speakers" (Meek, this volume) while finding ways for their numbers to speak for themselves. However cool, interest-free, and "objective" their scalar measurements may seem—and *must* seem, insofar as administrative and governmental parties demand both accountability from their experts and an assurance that they won't meddle (Porter 1995, 2006)—the labor involved in scaling must be obscured.

Consider, too, cartographic senses of scale. These include the geometric notion of "uniform scaling" in which the identity and proportionality of some feature is preserved despite transformations that make it smaller or larger. We may extend this notion to consider anxieties about how best to preserve (or destroy) the identity of some thing, practice, or kind of person. For instance, Meek's chapter goes on to show that as bureaucrats count and plot linguistic competence and morbidity, scaling is not strictly a matter of quantitatively tracking, plotting, and remedying decline in linguistic competence per se. At the same time, there are also efforts to examine the proportion of declining speakers in relation to speakers of other dialects, especially with respect to a heteroglot whole—that is, the "larger" imagined community of the territory that ought to be recognizing, and respecting, its indigenous members. Indeed, native language endangerment projects are caught up in a multilingual politics of recognition in which a part-to-whole logic—and the slice-of-the-proverbial-pie distributions that follow from that logic—matters critically.

Some senses of scale imply vertical, hierarchical integration in which one spatiotemporally delimited domain is imagined to be nested "within" another, like tiered concentric circles or embedded matryoshka dolls. The micro, within the meso, within the macro. The local, within the national, within the global. While this sense of scale is especially prominent in ecological models of the social (see, for example, Broffenbrenner 1979), which seek to show how different levels of social activity are part of a whole, we also see it appear in cases where some people or things are figured as more *central* or *encompassing* than others. Indeed, as an inherently comparative or relational endeavor, scaling involves not only standardized measures but also metaphorical practices that are often not recognized by scholars to be scaling at all.

Some try to tease and hold apart various senses of scale as if they could be sorted out typologically. The authors convened here resist this tendency. After all, social actors also frequently combine and strategically shift between distinct senses of scale in ways that demand our attention. For instance, in Ishmael's attempt to persuade, he moves surely between measurements of length and weight to a part-whole, social-geographic scale in which individual bodies are set within a village. So it is not simply that scales are discursively forged as people distinguish, compare, analogize,

categorize, and evaluate. It is also that one kind of scale so established can be made to build on and relate to another, resulting in novel *interscalar* assemblages, a configuration of scalar effects that exceeds any one scalar distinction within it.

In her study of "higher" and "lower" court levels in Tonga, Susan Philips sheds light on precisely this issue by explaining how a variety of scalar dimensions reinforce each other, allowing groups of social actors to agree that a wedding is "big," a court is "high," or an infraction is "serious." Her chapter is a study of the powerful effects of *interscalabilty*—that is, the way different potentially scalable qualities or dimensions can be made to reinforce each other, almost like a kind of scaffolding on which people rely but take for granted. Tongans scale courts by way of overlapping distinctions, rather than simply balance or compare what is near in terms of what is far, or what is central in terms of what is peripheral. Philips asserts that there is a totalizing coherence of the overlapping scalar dimensions, a mutual propping up of each other.

For instance, the distinction between a "high" court and a "low" court can be taken for granted by those in their jurisdictions, given that this distinction is sealed by the homologies drawn among aspects of the built environment, levels of "seriousness," scope of jurisdiction, and linguistic conventions, including what language is spoken in which court and when. In contrast to the lower courts, the higher courts enjoy wider geographic jurisdiction; they encompass the lower courts in administrative and legal authority; they handle the more serious cases; they boast larger, more elaborate courthouses—and so on. Many, many mutually reinforcing scalar relations and distinctions conspire to make Tonga's courts into a neatly tiered system whose touted scalar qualities of "high" and "low" seem perfectly natural to those who abide by it. This demonstrates that *interscalar relations* may be stabilized and naturalized to the point that we may no longer even notice these relations *as* relations.

To be sure, scaling projects frequently disavow if not erase their own communicative labor, personnel, and material supports, naturalizing the scalar distinctions they produce. How else could differentially situated actors so frequently agree on what is near and what is far, what is high and what is low, what is local and what is universal? Indeed, Ishmael is not alone in assuming that the scale of the life around him can be "plainly" seen and stated. A pragmatics of scale responds by assuming that scale is always a matter (and a materialization) of a carefully fashioned perspective that orients actors in particular ways.

Interested in why, how, and under what circumstances particular scalar distinctions become salient in certain domains of social practice**,** this book examines how different and sometimes competing *scalar orientations* are negotiated in the flow of social life. In other words, we show how people make sense of their lives and orient their activities through the scalar distinctions available to them. Along these lines, Summerson Carr and Brooke Fisher consider the intensive

scaling work that accompanied the 2012 landing of a dock from Misawa—a tsunami-struck town in northern Japan—on Agate Beach, Oregon. Their chapter examines how various parties—from ecologists to public officials, marine biologists to local tourists—interscaled the dock as "monolithic," "awesome," and "alien" and to what interested ends. For instance, city and state officials seized upon the dock, so scaled, to project a future natural disaster too big to either centrally manage or individually ignore, thereby enacting a form of risk management central to neoliberal governance. At the same time, the story of the dock illustrates how intimate connections can be forged between the human senses and that which has been scaled as awesome and alien, a dynamic Carr and Fisher call *de-escalation*. Documenting the many socialities emerging from the prolifically scaled dock, their chapter shows that there is more than one pragmatics of scale, and that scaling is a practice that can—among other things—spawn a sense of intimacy and an ethic of interrelatedness at the same time that it serves projects that differentially authorize, individuate, and alienate.

On the question of scalar orientation, the volume theorizes the inherently *perspectival* nature of scale, asking of our material "whose scale is it," "what does *this* scale allow one to see and know," and "what does it achieve and for whom"? This is especially clear in Susan Gal's chapter, which explores a clash of scalar perspectives. Gal shows us how serious scalar tensions can surface and be addressed in seemingly mundane places, such as a kitchen conversation in the German-speaking Hungarian town Bóly. In Bóly, most speak German, and all also speak Hungarian, the language of the state and of the larger, nearby county seat, Pécs. Administratively, Bóly is stuck in a subordinate relationship to Pécs, which sometimes troubles townsfolk. People from Bóly can't escape this positioning from within the strictures of this entrenched classification, but they can and sometimes do defy this positioning by deploying *different* comparative models. In one conversation, Bóly speakers invoke a well-known opposition between "farmers" and "artisans," each side of which has its own bank of valued, contrastively defined qualities (e.g., plain versus elaborate, rooted in place versus worldly, etc.). Crucially, these two categories of person are not hierarchically ordered. What makes this model different from the administrative classification is that the artisan-farmer opposition is routinely projected ("fractally," Gal argues) onto other things and levels of organization, which enables perspective shifting. Farmers can metaphorically identify artisan-like people within their ranks or playfully act artisan-like themselves, for instance, and vice-versa. The farmer-artisan divide can also be projected onto places, allowing people from Bóly to recast their relationship to Pécs as reciprocal, not hierarchical.

Importantly, Gal also illustrates how rigid classifications can block such perspective shifting. A bilingual German-Hungarian woman is reduced to tears as she feels the crush of a linguistic taxonomy that forces her to "choose" between the

national languages German and Hungarian, when she in fact is attached to both. Indeed, once we acknowledge the ideological nature of scaling, the next step is to examine how certain scalar orientations take hold and exert influence, benefiting some and frustrating others.

PREDATORY SCALING

How do we understand the *institutionalization* of scalar perspectives that ensure that some scalar projects are relatively more effective and durable in the first place? This volume shows that institutions of various sorts—including academic disciplines—are in the business of selectively stabilizing and naturalizing scalar perspectives into *scalar logics:* that is, explicit or implicit rules for seeing relations from a particular point of view.

This is taken up concertedly in Judith Irvine's chapter, which begins with a discussion of Malinowski's now renowned conceit that "primitives" cannot see the "big picture" of their practices, the same big picture that the ethnographer goes on to explain for his readers. Irvine details how scalar projects strive to impose epistemological constraints, allowing participants and subjects—including social scientists—to see and know some things and not others. She goes on to ask critically and provocatively about the ends and effects of such efforts. Certain scalar perspectives—in this case the ethnographer's claim to see the "big picture"—require ignoring or erasing others' perspectives. Turning then to various census practices, both in the United States and in colonial Africa, Irvine's chapter addresses one central aspect of the micro-macro problem: that is, the ways that some scalar logics claim a sovereign vision.

As Irvine points out, construing a big picture—or a "type"—often involves the claim of encompassment, wherein other entities come to be seen as (mere) tokens, that which fills in the general outline. This, she underscores, is an ideological move par excellence. Yet depending on the project at hand, "big pictures" may be dismantled to refocus attention on the particular, local, and individual—scaling work that is no less ideological. Consider how people's attempts to be recognized as political or social groups are stymied as their *collective* claims are rescaled as assortments of *individual* ones. For instance, Carr (2009, 2011) describes a case in which an administrative body charged with running "client-sensitive" social service programs in the midwestern United States insulates itself from clients' claims that services are inadequate, misguided, and substandard. Administrators borrow quasi-clinical terms such as *denial* and *codependency* from program therapists so as to frame these collective claims as evidence of embodied pathologies. Once administrators can rescale collective critique as individual symptom, they can also return to business as usual. In such cases, we see the potential violence of some scalar projects, but not because there are some things and qualities that

are *immune* to scale (Tsing 2012, 2015). Rather, we might more productively worry about the relative degree of control that people have over how their claims, identities, and very lives are scaled, since scaling is critical to whom and what is politically and socially recognized (Meek this volume).

When thinking about the institutionalization and rationalization of scale, instances when institutions aspire to figure out and stick to rules about what scale is, or should be, are especially enlightening. Along these lines, Constantine Nakassis's chapter focuses on how trademark law tries to control a seemingly unscalable quality—that is, the red color of a particularly fashionable shoe. Nakassis describes a striking confrontation between competing scalar logics, which have little to do with the scalability of the object in question and far more to do with the political and ontological commitments of relevant scaling agents. One court rules that a red-colored outsole is protectable only when its distinction from the coloring of the rest the shoe is acknowledged, as if the shoe form itself offers up the only possible perspective. Other legal arguments focus on the recognizability of red as a token of a type of person who designed the shoe. For the central actors involved, the highest stake of these efforts to legally institutionalize a scalar logic are whether the red sole productively indexes brand. And while "source" may be read as the product of a scalar dynamic of vertical encompassment, Nakassis's analysis ultimately suggests that the millennial market is composed of semiotically managed comparability and copying.

SCALAR VALUE AND EVALUATION

To illustrate her thesis that scaling is central to cultural value-production, economic anthropologist Jane Guyer (2004) asks us to picture a kind of scale we have yet to mention. The *balance scale* is an apparatus that compares the mass of two objects by evaluating the relative force of gravity, a relation then translated and quantified in standardized units of "weight." Through this imagery, we are reminded not only that scale is inherently *comparative* but also that it allows those who use it to make determinations about the relative *value* of two or more things, which need not be readily quantifiable, and which are, in fact, only quantifiable *by* the act of scaling. That the balance scale is iconic of the British-derived American justice system may give us some pause, given that such a scale promises to compare ad infinitum, without reference to any attribute other than *weight.* Indeed, to analytically engage in the pragmatics of scale, then, is to track how forms of social life are differentiated using various metrics and metaphors, endowed with relative weight or dimension, and valued accordingly.

The evaluative nature of scale-making, and its role in value production, is highlighted in Michael Silverstein's examination of what is commonly understood to be the simultaneous "rise" and "spread" of wine culture. Silverstein shows us how

once-humble comestibles like coffee, chocolate, and beer have been "elevated" to the lofty heights of wine through the extension of florid wine-talk to them, almost as if they, like their consumers, were also capable of upward mobility through self-refinement. What he calls "vinification" clearly relies on analogic work, and not simply by registering that beer and coffee are like wine because they are said to share certain distinguishable qualities. Wine talk motivates and stabilizes an even more productive chain of associations: a type of person who is endowed with the cultivated sensibilities of taste. Silverstein thus elaborates on Bourdieu's (1984, xxix) famous argument that taste "classifies the classifer," by showing exactly how it is that distinguished drinks confer distinction upon the consumer. And while consumers and comestibles are elevated through wine talk, a vision of an encompassing marketplace that responds to, rather than produces, elite sensibilities is simultaneously projected. In other words, by way of a scripted set of analogies and associations, markets themselves are scaled as the circuitry for the "flow" of elite goods and people.

As with Ishmael's rhetorical exercise, Silverstein's chapter reminds us that scaling is socially productive precisely to the degree it is successfully relational. Recall that the distinction between higher and lower Tongan courts depends on how scalar dimensions are made to lean on each other in practice. Like scaffolding, the integrity of one dimension appears dependent on the integrity of the others, or so promise the workers who constructed it so that their colleagues might safely move around, picture what they are doing from various angles, and build, even if not necessarily from the ground up. But of course scaffolding is taken apart far more easily than it is put together, suggesting that the dimensions of the structure on which so many depend are not necessarily or naturally related and will likely be put together elsewhere in an entirely different way. Indeed, scales taken individually can allow us to rank and classify, but they are frequently combined in practice in all sorts of ways through the selective construction of scalar interdependencies. Though the trope of the scaffold, we recognize scale as relationally built and therefore precarious.

RADICAL SCALABILITY

In pointing to the sheer diversity of scalar practices and projects, this volume suggests that social existence is *radically scalable.* There isn't anything that cannot be scaled, nor is there any scale that is inviolable. We need only call to mind the optical illusions of "forced perspective" in the cinematography of old, or in what is now a small, playful online industry of tourism pics: a man seems to grasp the Eiffel Tower between thumb and forefinger, a woman kisses the profile of the sphinx (cf. Doane 2003). Collapsing near and far, small and large, this scalar magic may alert us to the very work of (re)scaling, to the idea that there is nothing all that rare or

peculiar about all this. The pragmatics of scale remind us of an episteme that Foucault (1973) famously attributed to premodern Europe, where sympathies spanned impossible distances, defied categories, allowed for a thousand occult influences; no distance was too great, nothing too remote for there not to be *some* relation.

In arguing that our lives are radically scaled and scalable, we should pause to reconsider Anna Tsing's claim that scaling can blind us to forms of life, ways of being that might otherwise be readily evident. More specifically, she calls upon anthropologists to attend to the "mounting piles of ruins that scalability leaves behind" and "show how scalability uses articulations with nonscalable forms even as it denies or erases them" (2012, 56). In her most recent work, she claims that "scalability banishes meaningful diversity, that is, diversity that might change things" (2015, 38). To be sure, scales can problematically fix our view, add weight to some dimensions of cultural life and not others, and propel some social projects at others' expense. But what exactly is a "nonscalable" form, and why should we assume that value lies not only outside scale but also in its very wreckage? Indeed, there is a tendency to discern something dehumanizing—even violent—about scale, perhaps because of its association with measurement and ordination, on the one hand, and vertical power arrangements, on the other. But as we have seen, qualities are as scalable as things that are readily quantified, and scaling projects can flatten hierarchies as well as construct and maintain them. And if hierarchies, elites, and market ideologies are products of scaling projects, so are morality, sensory experience, community, ritual, and our very sense of who, where, and what we are. So while we must be ever alert to the ways that scalar logics limit our imagination of passable human terrain, we should remember that precisely because scaling is inherently perspectival and relational, it is also potentially transformative and humane.

. . .

Scaling may be how social actors orient themselves to their worlds, but it has nevertheless proved disorienting for social analysts. From the micro-macro debates to the efforts to reconcile storied antinomies like "individual and society," notions of scale have animated and vexed so many of us, in part, perhaps, because those notions are freighted with political and ontological commitments (Alexander 1987). In the face of these impasses, the past few decades have seen renewed attempts—many imaginative—to resolve the alleged antinomies by trying to "link" (Alexander 1987) and think "across" scales (e.g., Collins 2013; Ganapathy 2013). Linking, bridging, jumping, bending, finding "dialectics" and "relations" between scales—all this effort continues to take for granted the givenness of scalar distinctions.

Some of those who address the problem of scale think that we should find finer and empirically better-motivated scalar distinctions, suggesting that the scalar

categories that actors and analysts abide by are simply too coarse. Given the view that scalar practices have epistemological implications, enabling and limiting what we can know, many scholars have asked such methodological questions as: how many spatial units should be identified in order to define some thing or happening as "local" (Moore 2008)? Or, how many temporal scales must we distinguish in order to explain the causes of an event—as many as twenty-four (Lemke 2000), or as few as two or three (Wortham 2006)? Would an exact combinatorics of scale pin down, once and for all, the things and qualities we study, allowing us to say positively what counts as, say, the "here and now"? Is studying scale simply a matter of discovering and cataloguing "different levels of empirical reality" (Alexander et al. 1987, 2), and should we follow the ambitious few who aspire to draw all scales together into one comprehensive vision of the world?

In addition to those who devote themselves to seeking out and delimiting scales in the social and natural world, other scholars emphasize the epistemological aspects of scale, that scale is a matter of perspective, a way of looking at some worldly entity that differentially emphasizes some of its dimensions at the expense of others. This scholarship recognizes that scaling is not simply a scholarly practice but also a way that social actors orient themselves to other people, things, and situations. To be sure, the study of scaling reveals the multidimensionality of cultural life, the idea that the *same things* can be approached and understood in many different ways. However, we should not take this to mean that scaling is simply a way of *seeing* something from afar that distorts, to a greater or lesser degree, its "object status" (Matsutake Worlds Research Group 2009, 381). The scaling projects detailed in this book richly demonstrate that ways of seeing are entwined with ways of doing, making, and being. Tongan courts are *made* high, indigenous speakers *become* communities, craft beer is *elevated* into a status commodity, because of the way they are scaled. Rather than focusing on whether our analyses "interrupt [the] object status" of the things we study (Matsutake Worlds Research Group 2009, 381), as if the status of objects were or should be set in stone, we should keep careful track of how things change and to what effect as they are rescaled by actors and institutions.

By treating the problem of scale pragmatically, this volume both avoids the seduction of stabilizing our objects of analysis and abandons the quest for an epistemological high ground—a perfectly comprehensive or synoptic view of scale that could encompass and exhaust all relevant spatial and temporal distinctions. Here again, we draw inspiration from Melville, who, in portraying the discursive work of one eloquent scale-maker, reminds us of a passage in the Book of Job. Of the leviathan, it is written: "any hope of subduing it is false; the mere sight of it is overpowering" (Job 41:9). Accordingly, the point of a *pragmatics of scale* is not to reduce scale, to pin it down and subdue it by a superordinate form of analysis. Nor is it to simply take different perspectives on the same object, as if that object could

or should be stable. Rather, the study of scale requires an openness, a pragmatic sensibility that allows us to track and narrate, rather than capture and catalogue, the many ways that social life is scaled.

To study scale is surely not easy. In reference to the actual body of the beast it was written in the Old Testament: "His scales are his pride, shut up together as with a close seal. . . . They are joined one to another, they stick together, that they cannot be sundered" (Job 41:15, 17)—but this is true, too, of the scales that people make out of potentially relatable, felt qualities in the world, including the leviathan of the State, as Hobbes would have it. This volume attempts to pry apart these seals in order to have us appreciate the labor, especially the semiotic labor, that presses scales together so as to obscure their interdependence. In doing so, we hope to reveal, again, how something as seemingly "plain" as the greatness of a whale is a pragmatic achievement.

NOTES

1. In cultural anthropology, see, for example, Barnes 1962; Briggs 2004; Choy 2011; Ferguson 2006; Gupta and Ferguson 1992; Helmreich 2007, 2009; Maurer 2005; Matsutake Worlds Research Group 2009; Matthews 2009; Strathern 2004; Tsing 2000, 2005, 2012, 2015. In cultural geography, see Brenner 2004; Lefebvre 1991; Manson 2008; Marston 2000; Marston, Jones, and Woodward 2005; Moore 2008; Smith 1996, 2004; Springer 2014; Swyngedouw 1997, 2004, 2010. In economic anthropology, see Guyer 2004; Riles 1998. In gender studies, see Mountz and Hyndman 2006; Roberts 2004; Safri and Graham 2010; Steedman 1987. In literary, film, and art historical studies, see, for example, Bakhtin 1986; Doane 2003. In philosophy, see Rotman 1993. In science studies, see Choy 2011; Lampland and Star 2009; Latour 1999; Sunder Rajan and Leonelli 2013; Yaneva 2005. In sociology, see Barnes 2001; Brubaker 2002, 2005; Brubaker and Cooper 2000; Callon 1986; Callon and Latour 1981; Goffman 1983; Latour 2005.

2. The problematic of "scale" has been important in many language-centered works of late, both in linguistic anthropology (e.g., Wortham 2012; Agha 2007; Silverstein 2003; Irvine and Gal 2000; Kuipers 1998) and in related fields such as sociolinguistics (see, for example, Lemke 2000; Collins and Slembrouck 2005; Collins, Slembrouck, and Baynham 2009; Blommaert 2007, 2010; Collins 2013).