Før a Ruthless Criticism of Everything Existing: Rebellion Against the Quantitative-Qualitative Divide

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While research practitioners remain deadlocked in old debates about the incompatibility and validity of qualitative versus quantitative research, streams of real-time data are overwhelming leading companies with individual-level insights at a scale and velocity impossible to achieve with traditional methods. Remaining relevant in the age of analytics no longer depends on the perfection of either methodology, but on the evolution of a creative, inter-disciplinary combination of both qualitative and quantitative approaches.

Nevertheless, until we are done with the past, the past is never truly done with us. This paper establishes a new inter-disciplinary epistemology by tracing the historical development of the current qualitative versus quantitative divide. In so doing, I aim to discredit the assumptions underpinning the current debate, and illustrate how the shared epistemological origins of both statistics and ethnography inform the empirical formulations behind new "hybrid" quantitative-qualitative methods.

This is a paper about rebellion—specifically, methodological rebellion. Before he became famous for his critique of the political economy, Marx (1843; 1978) described his intellectual mission as a *ruthless criticism of everything existing*. "Ruthless" in the sense that Marx was completely "unafraid" of where his results would take him and "just as little afraid of conflict with the powers that be" (Marx 1843). By "everything existing," he meant discarding all the "mundane" paradigms of the day and starting over from basic presumptions (Marx 1843). He proceeded by reconstructing the historical terms leading to the dominant paradigms of his era. Along the way, Marx expected to discover flaws in the old way of thinking upon which he could lay the foundation of the new way of thinking.

Borrowing Marx's framework, I will demonstrate that a deep, "ruthless" engagement with the scholarly tradition will challenge and transform our assumptions about the divisions between quantitative and qualitative methods. By starting from the philosophical roots of quant and qual, and reconstructing some of the history embodied in the present-day divide, I intend to both discredit notions about the incompatibility of qualitative and quantitative methods, and suggest that the next evolutionary stage for our research practice should incorporate some engagement between the two. In closing, I will briefly illustrate such an engagement in the form of a research design combining multiple regression analysis with qualitative observation.

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INTRODUCTION: RUTHLESS SELF-CRITICISM

In the late nineties, a community of designers and social scientists founded a new phase in the evolution of marketing on the radical notion that market research overlooked "real behavior in real situations," ignoring how "people actually use things" in favor of tidy data on attitudes and intentions (Posner 1996). The ethnographic, customer-led turn in business rendered the traditional, syndicated techniques of market research at odds innovation in products and services (Hamel and Prahalad 1994). Market research methods enlisted consumers to articulate and devise solutions to their needs, but disregarded the complex patterns, hidden meanings, and latent needs implicit in everyday life which subjects cannot easily articulate (Slater and Narve 1998). In a world where "meaning isn't always a matter of conscious belief," E Lab Founder Rick Robinson observes, "you can't just listen to what people say" (Posner 1996). So the ethnographic revolution set aside outdated market research methods in favor of the notion that "you have to understand how [consumers, end users] interact with their environment and with other people" (Posner 1996).

That future is now our present. The ethnographic turn in design & market research is a prominent fixture in global business, variously established as "design-anthropology" and "innovation consulting" (Richardson 1994; Dourish 2006). Indeed, the existence of the Ethnographic Praxis in Industry Conference is a testament to the collective effort of research and design community who started it all.

But the forces of evolution are back—this time, with a vengeance. Slobin & Cherkasky (2010) point out that risk-averse businesses increasingly turn to web-analytics and business intelligence for customer insight. In place of the ethnographer, web-application logs capture the real-time behavior of millions of customers, while fine-tuned algorithms promise a "perfectly calibrated" set of products and services (Slobin & Cherkasky 2010).

Although Slobin & Cherkasky (2010) demonstrate that, in practice, this approach leads to "data hoarding" more than experiential understanding, quantitative and computational techniques are rapidly catching up with technology. "Data is the sword of the 21st century," remarks Jonathan Rosenberg, former Google, Inc. Senior Vice President of Product Management "and those who wield it, the Samurai" (Rosenberg 2009).

Although a thoughtful integration of quantitative methods with qualitative research practice appears to follow, this is a troubling evolutionary proposition to many in a research community founded on the *deficiencies* of outdated quant methods, not to mention the value proposition of qualitative research:

> This community of researchers has qualitative methods at the heart of our core competencies and a sudden shift to quantitative research, especially when some clients view it as a way to jump strait [sic] to validating their hypothesis, hunch or concepts without examining the context for its relevance, through qualitative research is not a good sign … For those clients who want to achieve a breakthrough in delivering value to their audience, quantitative is only a way of shirking responsibility from finding new directions and a way of playing safe (Dandavante 2009).

In our era, ethnography is an established practice within market research, replete with its own conventions, syndicated techniques, and researchers who have become implicitly suspicious of numbers. "Quant" and "qual" only encounter each other in terms of "either/or," "better-than," "one validating the other," or as "ceremonial" gestures to appease numbers-obsessed clients (Boehm 2009). Statistical "snake-handling" is somehow preferable to a meaningful dialogue between qualitative and quantitative analysis. Meanwhile, the gathering forces of evolution—driven by big data, the internet's increasing share of social life, and the floundering economy—offer research practitioners a single choice: *adapt*, or dig in our heels, find a nice, quiet cave, and settle in for a long, drawn out extinction.

Thus, whether we are prepared for it or not, 'winter is coming[2],' and when I say I want a rebellion against the quant-qual divide, I'm suggesting that the "either/or," "better-than," or "one validating the other" paradigm is standing in the way of our evolution. By the end of this paper, I hope you will agree that we as ethnographers have no reason to fear numbers, no reason to subjugate, or be suspicious of numbers, and every reason to tap into the promise of what could be achieved by using quant methods to enrich ethnographic work.

THE ORIGIN OF THE SPECIES

Discourse among professional ethnographers often deploys the term positivism interchangeably with quantitative methods. Indeed, the quantitative empirical turn in American sociology, which gave birth to professional market research, also traces its origins to the positivist tradition. However, closer inspection of the philosophical tradition suggests that positivism is far from the absurd, reckless belief in the self-evident veracity of numbers that it is often portrayed to be.

Comte

Positivism originates in the Positive philosophy of French philosopher August Comte (Levine 1995). Comte begins by dividing all knowledge into three basic categories, "the theological, or fictitious; the metaphysical, or abstract; and the scientific, or positive" (Comte 1975, 71). By "positive," Comte simply meant things we can be 'positive' about—he authoritatively debars to human reason any speculation about origin, meaning, or other sublime mysteries best left to the domain of the theological, or metaphysical."Our real business," Comte declares, "is to analyze accurately the circumstances of phenomena, and to connect them by the natural relations of succession and resemblance" (Comte 1975, 75).

Take gravity, for instance: "we say that the general phenomena of the universe are *explained* by it, because it connects under one head the whole immense variety of astronomical facts," but, Comte argues, "as to what weight and attraction are, we have nothing to do with that… theologians and metaphysicians may imagine and refine about

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[2] To quote another famous author: see George R.R. Martin. *A Song of Ice and Fire,* 1996-Present.

such questions, but positive philosophy rejects them all" (Comte 1975, 75). Thus, 'facts' insofar as they are 'positive' facts, must be universally observable, and expressed through sufficiently general means, such as measurement.

Comte's concern with a measurable universe is a matter of historical context. He was born in 1798, about four years after the Reign of Terror (1793-1794), in the chaos of post-Restoration France. It was a time in which fact became utterly confused with ideology, and Comte's wariness of 'truth' in the hands of power is apparent in his writing. He found metaphysical and theological abstraction and their sway over the human imagination to be powerful, perhaps useful, but nonetheless *dangerous* forms of knowledge, which "offered the powerful charm of unlimited empire over the external world" (Comte 1975, 74).

Alternatively, Comte saw certainty—anything one can be "positive' about, as the basis for a more democratic consensus. Under conditions of anarchy, consensus becomes a social good. With consensus in hand, Comte argues, one can move society forward constructively. He understood human development in terms of a historical progression from theological, to metaphysical, to a positivist thought (Comte 1975).

But the property which makes such consensus possible is that positive facts can be disputed, "without once inquiring into [*their*] nature" (1975, 75). Comte certainly never claims that just because a fact is measurable it somehow attains absolute truth. Indeed, "there is no science," Comte concedes, "that, having attained the positive stage, does not bear marks of having passed through the others" (Comte 1975, 72). "Measuring" is making an assumption. Positive facts are a form of *convention* that can be shared, contested, and constructively debated—that's why they're valuable.

Durkheim

Comte connected with later generations of social scientists through the work of Emile Durkheim—who by some measure influenced ethnography more directly than sociology—and Georg Simmel, whose critical reception of positivism had a direct hand in the methodological development of early Chicago School of sociology.

Durkheim believed that positive social science would lend itself to developing 'social facts'—sociological laws explaining social life "in the nature of society itself"—the way, say, Newton's Laws or the Laws of Thermodynamics explain the physical universe (Durkheim 1982, 7). Discovering social facts would render sociologists capable of "maintaining" the proper functioning of society in its normal equilibrium, or "re-establish[ing] it if disturbed," and, if necessary," rediscover[ing] the conditions of normality if they happen to change" (Durkheim 1982, 104). However, distinguishing the "normal" state from the abnormal required a science of facts, "determined by some sort of mental calculus," upon which "no limit can be laid… in their search for the best" (Durkheim 1982, 104).

In other words, Durkheim dreamed of sociology as a kind of natural science, intended to maintain the integrity of social order. He thereby made Comte's implicit invocation of consensus as social good his explicit scientific aim. He even cites Comte as the first scholar to tap into the altruistic, rather than economic, dimensions of the division of

labor in society—which Durkheim would later identify as an engine of social solidarity (Durkheim 1984, 23, 306).

Durkheim's concern with social solidarity is founded on his vision of a society in which individuals are primarily a loose bundle of biological drives, feelings, and intentions—barely distinguishable from animals (Durkheim 1951, 213). Society, on the other hand, offers individuals the means to acquire "higher order" elements of culture, or even religion and politics, through social exchange and collective identification (Durkheim 1951, 213). Solidarity, in the form of laws, professional codes, and cultural norms, guides human beings through life and provides us with a sense of belonging (Durkheim 1984, 284). Nevertheless, whereas an integrated society works towards a collective purpose, a disintegrated society is a jumble of individuals, who exist without purpose. "Because society is the end on which our better selves depend," Durkheim argues, we cannot escape society "without a simultaneous realization that our activity is purposeless" (Durkheim 1951, 213). Thus, in the absence of solidarity, *anomie*, depression, and disillusionment don't emanate from the individual, but are the individual's expression of "*society*'s state of integration" (Durkheim 1951, 213).

Understanding Durkheim's journey from positivism to functionalism is instructive because, in the end, Durkheim had more influence over early ethnographers than the sociologists who would eventually introduce social science to quant methods. For instance, A.R. Radcliffe-Brown (1952) studied 'primitive' societies in order to develop universal generalizations about social structure. "Societies differ from one another in their structure and constitution and therefore in the customary rules of behavior," Radcliffe-Brown conceded, but institutions like religion, for example, invariably function to maintain social order (Radcliffe-Brown 1952, 160). The particulars may vary according to the specifics of a given society, but function remains the same (Radcliffe-Brown 1952, 161) Indeed, Radcliffe-Brown's language invokes Durkheim's quantitative positivism:

> It is this theory that I propose for your consideration. Applied, not to single society such as ancient China, but to all human societies, it points to the correlation and co-variation of different characteristics or elements of social systems (Radcliffe-Brown 1952, 160).

Durkheim was so influential that even early social anthropologists—the other side of the proverbial house—who disagreed with Radcliffe-Brown's structural functionalism, formulated their understanding of qualitative methods in positivist terms.

For example, Bronislaw Malinowski (1978)—who coined the very phrase "ethnography"—identified the "concrete, statistical documentation" of the organization of the 'tribe' as a "goal of ethnographic field-work," alongside the 'anatomy' of its culture, the "imponderabilia of actual life," and minute, detailed observations, "made possible by close contact with native life" (Malinowski 1978, 24).

For that matter—whether or not Malinowski disagreed with Radcliffe-Brown's notion of the collective, rather than individual, structuration of society—he certainly seemed to embrace the notion of ethnography as a form of objective science aimed at producing general law. "Ethnographic work is creative in the same sense as the construction of general principles in the natural science," Malinowski argues, "where objective laws of very wide application lie hidden till brought forth by the investigating human mind (Malinowski 1978,

397). "Perhaps man's mentality will be revealed to us," Malinowski speculates, leading researchers "along some lines which we have never followed before" (Malinowski 1978, 25). Moreover, "as the principles of natural science are empirical," Malinowski argues, "so are the final generalizations of ethnographic sociology because, although expressly stated for the first time by the investigator, they are nonetheless *objective* realities of human thinking, feeling and behavior" (Malinowski 1978, 397).

Like Durkheim, Malinowski, even Radcliffe-Brown and E. E. Evans-Pritchard (1952) oriented themselves around a positivist framework—understood in terms of the simple necessity of empirical fact as the basis for universal scientific consensus. Thus, some ethnographers may recoil in Lovecraftian[3] horror to learn that somewhere, in the primordial epistemological goo of philosophical pre-history, they may be descended from positivists.

Simmel

Simmel, unlike Durkheim, was more directly influential on the early Chicago school. A victim of anti-Semitism in his native Germany, Simmel went unappreciated by German academic departments despite public support from the likes of Max Weber and Edmund Husserl. Yet Simmel had a profound impact on early American sociology—with six publications in the American Journal of Sociology by 1906—and its progenitors like Robert Park.

In further contrast to Durkheim, Simmel was more or less pre-occupied with the limits of scientific empiricism, but *advocated* for the role of abstract, theoretical and metaphysical knowledge (Simmel 1971). Although positive knowledge can neither answer nor discard certain ontological questions—such as the absolute origin of things—to Simmel, these questions remained relevant to scientific inquiry. "If the history of the sciences really does reveal that the philosophical mode of cognition is the primitive mode," Simmel observes, "then this provisional procedure[4] is nevertheless *indispensable* when confronted with certain questions… namely those questions… that we have so far been unable either to answer or dismiss" (Simmel 1978, 53)." According to Simmel, "even the empirical in its perfected state might no more replace philosophy as an interpretation… than would the perfection of mechanical reproduction of phenomena make the visual arts superfluous" (Simmel 1978, 53).

In other words, to Simmel's mind, abstract inquiry is still useful because it provides insight into the meaning of phenomena which can't be captured through empirical measurement. This leads Simmel to an interpretive framework for understanding social phenomena. The "substantive meaning" of a given "phenomenon that is derived from a study of its historical development… rests upon connections of a conceptual… nature that are not temporal but rather are purely material" (Simmel 1978, 54).

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[3]See H.P. Lovecraft. *Facts Concerning the Late Arthur Jeryman and His Family*, 1921.

[4] In view of clarification, when Simmel says, "this provisional procedure" in this quote, he is referring to philosophical or metaphysical abstraction.

Thus, the early Chicago school sociologists were pragmatists, not positivists, and favored observational field work and interpretive methods. Robert Park and Ernest Burgess (1925), W.I. Thomas and Florian Znaniecki (1918-1920), and scores of other sociologists sought empirical validation in examination of the real, lived social world (Bulmer 1984). The history of quantitative methods in sociology during this period is fragmented, but after the arrival of William F. Ogburn, scholars like Burgess became more interested in ideas and techniques embodied in statistics (Bulmer 1981, 315).

Geertz

Having discussed Malinowski and Radcliffe-Brown, an entire section on Clifford Geertz may seem quixotic, or even excessive. However, Geertz is where the conversation on modern ethnography usually begins. Nearly everyone who identifies as an ethnographer—be they academic scholar or research practitioner—encounters Geertz. In evolutionary parlance, Geertz is a pivotal, keystone organism, like the *archaeopteryx*, who re-oriented the evolutionary trajectory of his species.

The best route to understanding Geertz's perspective, for our purposes, is through his rejection of Lévi-Strauss's (1969) structural anthropology. Lévi-Strauss, like Radcliffe-Brown (1952), drew inspiration from Durkheim as well as Ferdinand de Saussure (himself an admirer of Durkheim) (Lévi-Strauss 1969; 1995). Lévi-Strauss believed that human characteristics are ultimately the same everywhere, because the both 'primitive' and 'civilized' societies are based on universal structures, transcending individual experience. Using Saussure's (1986) formal semiotics and their binary conception of meaning, Lévi-Strauss' sought universal structures in things like myth and ritual (Lévi-Strauss 1995). Like Radcliffe-Brown (1952), Lévi-Strauss (1969) came to see the formal identification of irreducible social structures as the heart of anthropology.

This point of view frustrated Geertz (1973a; 1973c) for two reasons—first, anthropology had been telling more or less the same story since the days of Durkheim; second, structural anthropology had evolved into a kind of "fastidious Mandarinism," obsessed with *sui generis* structures at the expense of understanding individual, 'lived' experience (Geertz 2000, 75). So, in place of Durkheim, Geertz drew insights from Edmund Husserl (1999), transmitted through the work Alfred Schütz (1982), and Ludwig Wittgenstein (2009).

Husserl (1999) argued that experience envelops and explains reality, placing him squarely at odds with Lévi Strauss (Geertz 1973c, 356). He contends that every individual apprehends meaning from the perspective their own reality (Husserl 1999, 33-34). Communication between one reality and another thereby requires a confluence of shared signs and gestures, but the process is always indeterminate.

Writing about Husserl's student, Schütz (1982), Geertz observes that "common sense," is really the individual's informal grasp of socially constructed reality—"the world of everyday life" is itself "a cultural product, for it is framed in terms of the symbolic conceptions of 'stubborn fact' handed down from generation to generation... Like Mt. Everest, it is just there" (Geertz 1973a, 111). Yet the terms in which individuals apprehend

"common sense"—though pivotally important to Geertz—are invisible to the structuralist perspective.

Wittgenstein (2009), moreover, conceives of language as an interdependent, socially constructed web of reference reinforced through usage—in stark contrast to Saussure's formal conception of signs and signifiers. As a cultural product, language is less an act of comprehension than it is acquired through games circumscribed by the rules of grammar, conferring meaning upon words in terms of their association with everyday life (Wittgenstein 2009).

For Geertz, Wittgenstein's 'attack' upon Saussure's formal conception of signs and signifiers, "brought thought out of its grotto in the head into the public square where one could look at it" (Geertz 2000, xii). He regarded Wittgenstein's work as almost "custom designed" to enable his brand of ethnography (Geertz 2000, xii). Geertz thereby formulated the object of anthropological inquiry as a "historically transmitted pattern of meanings embodied in symbols, a system of inherited conceptions expressed in symbolic forms by means of which men communicate, perpetuate, and develop their knowledge about and attitudes toward life" (Geerz 1973a, 89). In other words, culture is not *sui generis*, but inseparably bound to context, place, and even the life of the subject itself.

Consider the position of ethnography— Geertz suggests our data are the "means by which people communicate, perpetuate, and develop … knowledge about and attitudes toward life" (1973a, 89). We translate and interpret, but, if we believe Wittgenstein, as Geertz certainly does, the subjective structures which facilitate translation are 'slippery' enough to ensure *something* is going to get lost (Geertz 2000, xii).

Geertz wouldn't have you believe that the interpretive and narrative virtuosity of the observer somehow transcends the phenomenological problem of meaning. The "thickest" description, as Geertz put it, still "strains to read over the shoulder" of the subject (Geertz 1973b). Interpretive data is, therefore, subject to the same *boundedness* as quantitative data. Data is always an act of abstraction—in this case, from the metaphysical rather than the positive. "All ethnography is part philosophy," Geertz writes, "and a good deal of the rest is confession" (Geertz 1973c, 346).

So where does that leave us—on the one hand, positivist influence on initial formulations of ethnography led early ethnographers towards formal, empirically-based structuralism. Early sociologists, on the other hand, understand the positivist enterprise in terms of the *boundedness* of empirical knowledge, thereby embracing a more interpretive approach, coupled with the eclectic, pragmatic use of statistics and quantitative techniques. By the time Geertz rejects structuralism in favor of symbolic anthropology, he becomes wary of the universal claims and formal qualitative empiricism favored by his forebears. In the final tally, neither the quantitative nor qualitative philosophical traditions can claim data is anything more than an approximation of reality. Qual learns about society through its inscriptions on mental life, and quant tries to measure what happens outside of mental life.

That certainly *sounds* compatible—so what happened?

SELECTION AND ADAPTATION

The Character Education Movement and Quantitative Sociology

Sociologists published a variety of influential urban ethnographies after World War I, such as *The Polish Peasant in Europe and America* (Thomas and Znaniecki 1918-1920), and *The City* (Park & Burgess 1925). *The Polish Peasant* alone was a highly anticipated, $50,000 research project, which sold in excess of 1500 copies in its first press (Bulmer 1984). The coming of William F. Ogburn to Chicago also led sociologists to experiment with quantitative statistical techniques and survey research (Bulmer 1981). During this period, W.I. Thomas (1951) and others began making contributions to the field of Culture and Personality. Founded on the research design of Lawrence Frank (1948), the study of culture and personality linked the behavioral sequences of early childhood with the psychological dynamics inherent in culturally sanctioned norms and behavior (Sapir 1956). Thomas worked alongside Frank's students such as Edward Sapir (1934; 1938), Ruth Benedict (1934), John Dollard (1936; 1950), Margaret Mead (1946; 1951b; 1952) and others (Haring 1948; Kluckhohn 1949; Kluckhohn and Murray 1948). These scholars took anthropological and psychological data, such as informant autobiographies, life histories, artistic products, and combined them with statistical analysis of Rorschach or Thematic Apperception Tests in order to analyze human culture into a system relating early childhood to psycho-social dynamics (Henry 1947). In other words, the prevalent method feeding or toilet training children in a given society would be related to the way adults interact or respond to ideas and events.

Meanwhile, competition over scant financial resources in the pushed social scientists of the era to shore up their standing in the academic universe, which meant going to great lengths to present themselves as a rational, morally neutral "objective science" (Camic 1986). Concurrently, the American "Character Education Movement" began funding a watershed of 'moral character studies' with civic, religious, and government support. The goal was to instill loyalty, patriotism, obedience—"good character"—in young people. They even funded 'academic' research, which implicated the type of social science research favored by the Culture and Personality school in an evaluative discourse on virtue (Camic 1986).

Of course, this was a political, and potentially financial, disaster for sociologists and psychoanalysts invested in establishing a value-neutral scientific framework for research. Thus, it was within their interest to embrace hard-nosed quantitative methods to earn recognition as "*scientific*" discipline relative to others. It didn't happen overnight, but the first scientific survey of radio listeners occurs by 1930, two years later its author, Paul Lazarsfeld, came to the US. Five years later, he's Sociology faculty at Columbia[5].

The National Character Movement and Ethnographic Practice

What about anthropology? The build up to World War II made it necessary to understand how enemies, allies, and the public would respond to military operations and

[5] The author acknowledges there is a more complicated story here, particularly between Robert Merton and Paul Lazarsfeld, but it's too far beyond the scope of the topic at hand to explore in this paper.

psychological warfare, so the U.S. Military recruited the Culture and Personality school in the war effort (Mead 1951a).

Ruth Benedict, Margaret Mead and their colleagues soon wound up working for the Office of Strategic Services and the Office of War Information on "national character studies" (Mead 1962; Murray et al. 1948). National Character was an applied science, perhaps analogous to our own industry-driven ethnographic practice (Gorer 1953a). They would gather data on a given country, draw conclusions about patterns of early childhood experience, and let psychoanalytic theories of character fill in the rest (Bateson 1942a; Gorer 1953a). National Character borrowed the Culture and Personality school techniques, but aimed for 'ideal types' that could inform predictions about the behavior of national groups, rather than reconstruct specific processes of social adaptation[6].

Data was tricky—they had no access to their subjects, just fragments like art, literature, radio broadcasts (Mead and Metraux 1953b). Simply working out what childhood experiences would generally be in a given culture was itself an obstacle to researchers. Nevertheless, this work was incredibly influential. Benedict's (1946) and Gorer's (1943) work on Japanese national character served as the foundation for wartime intelligence efforts, as did Gorer's (1953b; Gorer and Rickman 1950) work on Russia. Bateson & Mead (1941) engineered the morale-building campaign which imagined the Allied troops with their "backs against the wall," having determined that the American public would approve more aggressive troop commitments in response to cognitively dissonant military asymmetry (Bateson 1942a; Mead 1948; 1951c; Gorer 1951).

Nevertheless, National Character came crashing down after World War II. The memory of Nazism made the academy very uneasy with its blatant, essentialist determinism (Mead 1954; 1962). Some interpreted the emphasis on childhood as a racist attempt to 'blame' nations for innate, unalterable traits (Dallin 1949; Wolfe 1951). Furthermore, McCarthyists were eager to portray everyday Russians as psychologically identical to everyday Americans, so they attacked Mead & Gorer—specifically their mixed psychometric and psychoanalytic methods, discrediting them as "racist diaperologists" (Dallin 1949).

The next generation of anthropologists took an enormous step away from National Character, just as a young Clifford Geertz began his career. You see him nod to anthropology as a "science" in his early work (Geertz 1957), only to reject it about 15 years later in favor of "thick description," participant observation, and the 'lived' experience of the subject as both the means and the object of ethnographic study (Geertz 1973a; 1973b).

JUPITER AND BEYOND THE INFINITE

With our evolutionary origins borne out for consideration, the schisms of the past laid bare—I contend that the present-day divide owes more to particular episodes in our collective intellectual history than the intrinsic incompatibilities of qual and quant. If we

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[6] Kardiner (1945a; 1956) came close to a causal explanation of character adaptation, but he was subsumed by Mead (1951b; 1953a) and others (Gorer 1956), who wanted to emphasize the National Character school's attention to cultural particularity and flexibility of analysis.

trace our lineage back to Geertz and others, neither qualitative nor quantitative researchers can rightfully claim an absolute share of truth, nor were they ever truly intended to. In view of the scholarly tradition, representing either statistical inference or "thick description" as such renders oneself at odds with the philosophical foundations of modern social science methodology.

Having dispensed with the past, how do we move forward as practical researchers? On the one hand, the computational turn in Sociology offers a menagerie of data-mining techniques aimed at bringing statistical insights to bear on qualitative text data (Stone et. al. 1996). Centering Resonance Analysis, for instance, is a form of content analysis that stack-ranks influential word pairings in text (Corman et. al. 2002). Using the influence of one word to predict the influence of another, researchers can identify implicit symbolic relationships hidden within deep semantic structures. Social network analysis (Wasserman and Faust 1994) lets researchers analyze and quantify social structure as an outcome of the limitless informal interdependencies we might uncover through qualitative fieldwork, or test hypotheses about where subjects fit into social order (Hanneman and Riddle 2005).

On the other hand, we can "ruthlessly" re-consider the theoretical premises underlying statistical inference in search of better ways to integrate it with qualitative work. The rich corpus of Bayesian statistics[7] merits mention here, but cannot be treated with the complexity it deserves in the space remaining. Instead, let's take a "Bayesian" perspective on something simple and accessible to most researchers, like a multiple regression model (Paul Alison 1999). I use the term 'Bayesian' *very* loosely here, primarily in the sense that it provides a useful analogy. Accordingly, we will quickly illustrate a study design in which we postulate a regression model, use qualitative observations to learn about "unknown" parameters, and, given what we've learned about those "unknowns," update and refine our original model.

Consider a simple, monotonic multiple regression model. Regression models of this sort tend to assume that most things, given enough time or variation, simply 'regress' to the mean, or average. When we make one variable *x*, the *independent* or 'determining' variable, and another variable *y*, the *dependent* or 'outcome' variable, we are—at least initially, 'predicting' *y* as if it were a *linear* function of x. Therefore, knowing what we know about most things, the value of *y* could be reasonably represented by the mean of *x*.

Let's think about something more concrete—for example, the relationship between, say, *income* (*x*) and *consumer spending* (*y*). Imagine a scatter plot in which a cloud of dots represents the relationship between income and consumer spending. If I hypothesize consumer spending is a function of income, then in my regression model I think about income as *x,* and consumer spending as *y*. So each dot in my scatter plot is a point equivalent to some subject's income, on the *x*-axis, and some measure of their spending habits, on the *y*-axis. As above, I might reasonably argue that average income is a good indicator, or predictor, of consumer spending.

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[7] For a witty introduction to Bayesian Theory, see Sharon Bertsch McGrayne's (2011) recent book. For something more instructive, see Jeff Gill (2002).

But the conceit of regression is that I can improve on this prediction in a number of ways. First, we can calculate a 'best fit' line that is as close as possible to each dot on my scatter plot. The slope of this line represents a hypothetical relationship between income and consumer spending—specifically, that each unit increase in income corresponds to a fixed increase in consumer spending (let's call it β). Second, if I collect enough data, I can adjust the slope of that line (β) to account for the mitigating or amplifying influence of other things, like education, socio-economic status, occupational prestige, gender, region, or ethnicity, on the relationship between income and consumer spending.

But β is, ultimately, just a hypothesis—we can measure the extent to which it improves on 'just the average' of x, as well as its capacity to explain variation in y. We call that statistic the R^2 value—a number between 0 and 1 which explains the percentage of variation in y explained by x. In practice, the R^2 value of most models is low, between .100 and .400. Let's be thankful for that: in a society where the R^2 value of the relationship between consumer spending and income is equal to 1.0, every person spends more money for every single additional dollar they earn—no exceptions.

The R^2 is useful to qualitative researchers because it confirms the existence of outliers—unknowns, individuals to whom the model does not apply. Indeed, by examining patterns in the distance between individual datapoints and our best-fit line, we can begin to segment of our study population in terms of how well the model describes their behavior. Thus, qualitative research need not address those in the most proximal band, since the model more or less explains their behavior. Instead, we should be interviewing and observing those to whom the model *does not* apply, noting differences in the user values, cultural norms, or observed behavior across segments.

In addition to gathering valuable insights into why the relationship between income and consumer spending is different for those individuals, we expect qualitative research will yield addition insight into meaningful sources of intervention, variation, and amplification ignored in the original model. If researchers measure these new variables, they can integrate them into an updated, more refined regression model. This is a process that can be repeated multiple times until researchers have either obtained a deep ethnographic understanding, or arrived at strong statistical inferences about the entire study population.

EPILOGUE

The illustration above is a simplified, single example of qual and quant working together. In closing, I put the question to all of you: what would qual and quant working together look actually like? I think the answer only *begins* at this conference—I don't know where it ends. So I want to close with Marx, so we can reflect on what he has to say until we meet again in 2012:

> Our motto must therefore be: Reform of consciousness not through dogmas, but through analyzing the mystical consciousness … it will transpire that the world has long been dreaming of something that it can acquire if only it becomes conscious of it. It will transpire that it is not a matter of drawing a great dividing line between past and future, but of

> carrying out the thoughts of the past. And finally, it will transpire that mankind begins no *new work*, but consciously accomplishes its old work (Marx 1843).

NOTES

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REFERENCES

Allison, Paul D.
1999 *Multiple Regression: A Primer.* Thousand Oaks: Pine Forge Press.

Bateson, Gregory.
1942a [1972] "Morale and National Character." In *Steps to an Ecology of Mind,* edited by Gregory Bateson, 88-106. New York: Ballantine Books.

Bateson, Gregory.
1942b [1956] "Some Systematic Approaches to the Study of Culture and Personality." In *Personal Character and Cultural Milieu,* edited by Douglas Haring, 131-138. Syracuse: Syracuse University Press.

Bendict, Ruth
1949 "Child rearing in Certain European Cultures." *American Journal of Orthopsychitary* 19:342-50.

Benedict, Ruth
1934 *Patterns of Culture.* Boston: Houghton Mifflin Co.

Benedict, Ruth
1946 *The Chrysanthemum and the Sword: Patterns of Japanese Culture.* Boston: Houghton Mifflin Co.

Boehm, Matthew
2009 Post to Anthrodesign mailing list, February 18, 2009.

Bulmer, Martin

1981 *"*Quantification and Chicago Social Science in the 1920s: A Neglected Tradition.*" Journal of the History of the Behavioral Sciences* 17:312-331.

Bulmer, Martin
1984 *The Chicago School of Sociology*. Chicago: The University of Chicago Press.

Camic, Charles
1986 "The Matter of Habit." *American Journal of Sociology* 91: 1039-1087.

Camic, Charles
Forthcoming. "The Decline of Character": The Changing Representing of the Individual in Early Twentieth-Century American Sociology.

Corman, S. et al.
2002 "Studying complex discursive systems: Centering resonance analysis of organizational communication." *Human Communication Research*, 28:157-206.

Dallin, David J.
1949 "Exterminate the Russians?" *New Leader*. October 29.

Dandavante, Uday
2009 Post to Anthrodesign mailing list, February 18, 2009.

De Saussure, Ferdinand
1986 [1965] *Course in General Linguisitics*. Peru: Open Court Publishing.

Dollard, John
1936 *Criteria for the Life History*. New Haven: Yale University Press.

Durkheim, Emile
1951 [1897]. *Suicide.* Translated by John A. Spaulding and George Simpson. New York: Free Press.

Durkheim, Emile.
1982 *Rules of the Sociological Method, edited by* Steven Lukes. New York: Free Press.

Durkheim, Emile
1984 *The Division of Labor in Society,* translated by Lewis A. Coser. New York: Free Press.

Frank, Lawrence.
1948 *Society as Patient*. New Brunswick: Rutgers University Press.

Geertz, Clifford
1957 "Ritual and Social Change: A Javanese Example." *American Anthropologist.* 59:32-54.

Geertz, Clifford
1973a "Religion as a Cultural System." In *The Interpretation of Cultures.* Edited by Clifford Geertz, 87-125. New York: Basic Books.

Geertz, Clifford
1973b "Deep Play: Notes on the Balinese Cockfight." In *The Interpretation of Cultures.* Edited by Clifford Geertz, 412-454. New York: Basic Books.

Geertz, Clifford
1973c "The Cerebral Savage: On the Work of Claude Lévi-Strauss." In *The Interpretation of Cultures.* Edited by Clifford Geertz, 345-361. New York: Basic Books.

Geertz, Clifford
2000 *Available Light: Anthropological Reflections.* New Jersey: Princeton University Press.

Gill, Jeff
2002 *Bayesian Methods: A Social and Behavioral Sciences Approach.* Boca Raton: Chapman& Hall/CRC Press LLC.

Gorer, Geoffrey
1953a "National Character: Theory and Practice." In *The Study of Culture at a Distance,* edited by Margaret Mead and Rhoda Metraux, 57-84. Chicago: University of Chicago Press.

Gorer, Geoffrey and John Rickman
1950. *The People of Great Russia.* New York: Chanticleer Press.

Gorer, Geoffrey
1943a [1946] "Japanese Character." *Science News* 1: 25-51. Originally published in *Science News* 1:26-51, 1946.

Gorer, Geoffrey
1943b [1956] "Comment on Japanese Personal Character. In *Personal Character and Cultural Milieu*, edited by Douglas Haring, 405-423. Syracuse: Syracuse University Press.

Gorer, Geoffrey
1953b [1956] "Japanese National Character." In *Personal Character and Cultural Milieu.* Edited by Douglas Haring, 424-437. Syracuse: Syracuse University Press.

Hamel, G. and C.K. Prahalad
1994 *Competing for the Future.* Boston: Harvard Business School Press.

Hanneman, Robert and Mark Riddle
2005 *Introduction to Social Network Methods.*
http://faculty.ucr.edu/~hanneman/nettext/

Henry, William E.
1947 "The Thematic Apperception Technique in the Study of Culture Personality Relations." *Genetic Psychology Monographs* 35:3-135.

Husserl, Edmund
1999 *The Essential Husserl: Basic Writings in Transcendental Phenomenology*, edited by Donn Welton. Bloomington: Indiana University Press.

Kardiner, Abram
1945a *The Psychological Frontiers of Society.* New York: Columbia University Press.

Kardiner, Abram
1945b [1956] "The Concept of Basic Personality Structure as an Operational Tool in the Social Sciences." In *Personal Character and Cultural Milieu,* edited by Douglas Haring, 469-482. Syracuse: Syracuse University Press. Originally Published in *The Science of Man in the World Crisis.* Edited by Ralph Linton. New York: Columbia University Press.

Levine, Donald N.
1995 Visions of the Sociological Tradition. Chicago: University of Chicago Press.

Lévi-Strauss, Claude
1969 [1949] *Elementary Structures of Kinship*. Boston: Beacon Press.

Lévi-Strauss, Claude
1995 [1979] *Myth and Meaning: Cracking the Code of* Culture. New York: Schocken Books.

Malinowski, Bronislaw
1978 [1922] *Argonauts Of The Western Pacific*. Oxon, UK: Routledge.

Marx, Karl and Friederich Engels
1978 *The Marx-Engels Reader*. Edited by Robert C. Tucker. New York. W.W. Norton.

Marx, Karl

1843 Letters from the Deutsch-Französische Jahrbücher: Marx to Ruge, Kreuznach, September. Marxists Internet Archive Library. https:\\www.marxists.org\archive

McGrayne, Sharon Bertsch
2011. *The Theory That Would Not Die: How Bayes' Rule Cracked the Enigma Code, Hunted Down Russian Submarines, and Emerged Triumphant from Two Centuries of Controversy.* New Haven: Yale University Press.

Mead, Margaret and Rhoda Metraux, editors
1953b *The Study of Culture at a Distance.* Chicago: University of Chicago Press.

Mead, Margaret
1946 "Personality: Cultural Approach To."' In *Encyclopedia of Psychology.* Edited by Philip Lawrence Harrimon, 477-487. New York: Philosophical Library.

Mead, Margaret
1948 "A Case History in Cross-National Communications." In *The Communication of Ideas.* Edited by Lyman Bryson, 209-229. New York: Harper.

Mead, Margaret
1951a "The Study of National Character." In *The Policy Sciences: Recent Developments in Scope and Method,* edited by Daniel Lerner, 70-85. Palo Alto: Stanford University Press.

Mead, Margaret
1951b "The Anthropologist and the Historian: Their Common Problems." *American Quarterly* Spring: 3-13.

Mead, Margaret
1951c "What Makes Soviet Character?" *Natural History* LX: 296+.

Mead, Margaret
1952 "Social Anthropology and Its Relations to Psychiatry." In *Dynamic Psychiatry,* edited by Franz Alexander. Chicago: University of Chicago Press.

Mead, Margaret
1953a. " National character." In *Anthropology Today: An Encyclopedic Inventory,* edited by A.L. Kroeber, 642-667. Chicago: University of Chicago Press.

Mead, Margaret
1954 "The Swaddling Hypothesis: It's Reception." *American Anthropologist* 56:338-347.

Murray, Henry et. al
1948. *The Assessment of Men: Selection of Personnel for the Office of Strategic Services.* New York: Holt, Rinehart, and Winston.

Park, Robert W. and Ernest Burgess
1984 [1925] *The City: Suggestions for Investigation of Human Behavior in the Urban Environment.* Chicago: The University of Chicago Press.

Stone, Philip J. et. al.
1996 *General Inquirer: A Computer Approach to Content Analysis.* Boson: MIT Press.

Posner, Bruce
1996 "The Future of Marketing Is Looking at You."*Fast Company.* October 31. Fast Company E-Journal Archives.
http://www.fastcompany.com/magazine/05/elab.html

Radicliffe Brown, A.R. and E. E. Evans-Pritchard
1952 *Structure and Function in Primitive Society: Essays and Addresses.* New York: Free Press.

Rosenberg, Jonathan
2009 "From the Height of this Place." Post to Google Blog, February 16.
http://googleblog.blogspot.com/2009/02/from-height-of-this-place.html

Sapir, Edward
1956 [1938] "Why Cultural Anthropology Needs the Psychiatrist" In *Personal Character and Cultural Milieu.* Edited by Douglas Harding, 719-727. Syracuse: Syracuse University Press.

Schütz , Alfred
1982 [1962] *The Problem of Social Reality.* The Hague: Martinus Nijhoff Publishers.

Simmel, Georg
1971 *On Individuality and Social Forms.* Edited by Donald N. Levine. Chicago: University of Chicago Press, 1971.

Simmel, Georg
1978 *The Philosophy of Money.* Translated by Tom Bottomore and David Frisby. London: Routledge & Kegan Paul.

Slobin, Adrian, and Todd Cherkasky

2010 "Ethnography in the Age of Analytics." *Ethnographic Praxis in Industry Conference Proceedings*, 188-198. Oxford: Blackwell Publishing Ltd.

Thomas, William Isaac
1951 [1933] "Outline of a Program for the Study of Personality and Culture." In *Social Behavior and Personality: Contributions of W.I. Thomas to Theory and Social Research*. Edited by Edmund Volkhart, 289-317. New York: Social Science Research Council.

Thomas, William Issac and Florian Znaniecki
1918-1920 *The Polish Peasant in Europe and America: Monograph of an Immigrant Group Vols. 1-4*. Boston: Gorham Press.

Wasserman, Stanley and Katherine Faust
1994 *Social Network Analysis: Methods and Applications*. New York: Cambridge University Press.

Wittgenstein, Ludwig
2009 [1953] *Philosophical Investigations*. Translated by G.E.M Anscombe, P.M.S. Hacker, and Joachim Schulte, edited by P.M.S. Hacker and Joachim Schulte. Malden: Blackwell

Wolfe, Robert
1951 "The Swaddled Soul of the Great Russians." *New Leader*. January 29.

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