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The Problem of “Cameo Appearances” in Mixed-methods Research: Implications for Twenty-first-century Ethnography

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and Anjali Verma³**

Abstract

Amid ongoing controversies in ethnography concerning representation, reproducibility, and generalizability, social scientific scholarship has increasingly taken a mixed-methods turn. While studies that blend qualitative and quantitative data promise to enhance the validity of representations of social worlds under analysis, they cannot escape contending with foundational dilemmas of scientific translation, integration, and commensurability across methodological paradigms. Recent debates have ignited a new line of inquiry about the integration of multiple methods in ethnography. In this paper, we argue that “cameo appearances”—the summoning of either qualitative or quantitative analyses in separate, purely mono-method studies—amounts to a form of methodological tokenism under the guise of methodological pluralism. We articulate sampling design, enhanced training, and curriculum development as crucial for arbitrating these debates as mixed-methods research emerges as a distinct innovation in twenty-first-century ethnography.

Keywords

generalizability, mixed methods, cameo appearances, sampling, design-level integration, curriculum, ethnography

Introduction

Studies that incorporate ethnographic and quantitative data have risen in prevalence and prominence over the last two decades, so much so that “Mixed-Methods Research” (MMR) has apparently become a “thing” (Hesse-Biber 2015). The reification of MMR as a distinctive form of twenty-first-century social science can be readily observed by the proliferation of special journal issues and symposia dedicated to questions of quantitative-qualitative integration, the emergence of dedicated MMR journals, and a growing literature that grapples with how to define, classify, and conduct MMR (e.g., Axinn and Pearce 2006; Franzosi 2012; Small 2011; Tashakkori and

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Teddle 2003a). These formalization processes have transformed MMR from an eclectic set of research approaches premised on the “synergy” of using multiple methodologies to study the social world into a methodology unto itself and a concept sufficiently bounded and well-recognized to serve as a keyword (Hesse-Biber 2015). While the mixed-methods turn may hold promise for advancing research in a variety of fields, recent controversies about the validity of social inequality research that blends qualitative and quantitative data and methods signal the potential perils, not only of research formally practiced as MMR but also of research practices steeped less formally in the mixed-methods zeitgeist.

Of what relevance is the mixed-methods turn for scholars who conduct ethnographic research that does not blend quantitative and qualitative data and/or methods? Relatedly, of what concern are emerging critiques of MMR for ethnographic “purists” and researchers who intend to remain purely qualitative in their approach and analyses?

We argue that *cameo appearances* made either by quantitative analyses in ethnography or by ethnographic accounts in quantitative studies should concern not only avowedly mixed-methods scholars but should also animate the concerns of qualitative and quantitative scholars alike. While the aim of generalizability is not always explicit in undertaking ethnographic research, quantitative data have been used by ethnographers to legitimate a study as “scientific” (Small 2009, 2011). Simultaneously, ethnographic research may be summoned by quantitative scholars to provide interpretive lenses for statistical analyses (Sykes, Verma, and Hancock 2017), and “a number of people have maintained that the best way to integrate ethnographic and quantitative research is to use ethnography to generate hypotheses that could be tested with quantitative data” (Wilson and Chaddha 2009:550).

When ethnography makes its “cameo appearance” in quantitative studies, ethnographic findings from a single or small number of cases may be used to add narrative or illustrative flair to instantiate statistically derived findings from entirely distinct populations, or to develop hypotheses about broader populations to be quantitatively tested. Moreover, ethnographic findings may be summoned onto stage with or without the participation of the ethnographer and whether or not the qualitative inferences were intended to perform roles according to the ontological and epistemological premises of quantitative knowledge production. Conversely, in the social inequality field, ethnographic studies increasingly draw on nationally (or locally) representative quantitative data to stage the broader context for research, summoning a “cameo” performance by quantitative research to bolster generalizability assertions. “Cameo appearances” raise equally important, if often overlooked, methodological tensions in mixed-methods studies, as well as in what may present as more or less self-contained ethnographies.

Qualitative and quantitative researchers are implicated in the process of cameo research, we argue, because either form of “cameo appearance”—whether by ethnographic research in quantitative studies, or by quantitative research in ethnography—amounts to a form of methodological tokenism under the guise of “pluralism,” the pure aim of which is to transcend rather than introduce new methodological masks for “tribalism” and the perpetuation of rigid research boundaries (Lamont and Swidler 2014:153; see also Lamont and White 2009).

MMR proceeds largely on the philosophical basis of pragmatism, which, as described by Abbas Tashakkori and Charles Teddlie (2003a), provides a framework for deploying a range of methods based on the research question at hand and getting beyond “paradigm wars” (see also Onwuegbuzie, Johnson, and Collins 2009). The classic pragmatist paradigm entailed an experimentally fallibilist methodological orientation that privileged close, detailed observation of everyday experience and focused on the use-value of research for moral and political purposes (e.g., Addams [1902] 2002; Dewey 1938; Peirce [1992] 1999; see also Tavory and Timmermans 2013). As extended to MMR, pragmatism serves as the contemporary rationale for selecting a set of methods deemed most likely to yield useful findings.

The rise of public sociology, which encourages active engagement in policy debates, particularly on systems of inequality (see, for example, Burawoy 2005), has also generated a common assumption that the deployment of multiple methods enhances the validity of research findings (Greene 2007; O’Cathain, Murphy, and Nicholl 2007; O’Cathain and Thomas 2006; Twinn 2003). Increasingly, findings from ethnographic and mixed-methods social inequality research may be understood as explanations sufficient to inform policy interventions—whether or not they are offered as such, and regardless of their inferential bases and particular claims of scientific validity and generalizability. In a remarkable moment in the twenty-first century when all manner of previously unrealistic, even unthinkable, policy reforms hold newfound potential with significant consequences for the production and reproduction of inequality, transparency about the extent of bias that may exist in findings derived from all modes of research, whether quantitative, ethnographic, or mixed-methods, is crucial for social policy informed by and crafted on the basis of research—regardless of whether that scientific basis may be rhetorical or real (see Jackman 2017).

The implications extend even to ethnographers who reject generalizability in the statistical sense and/or broader impacts on policy as research goals, not only because ethnographic findings may perform as unintended tokens by way of cameo appearance in separate quantitative research but because apparently distinct and discrete notions of generalizability within the field of ethnography itself may be shifting in the process and as a result of the so-called pragmatic mixed-methods turn. In the practice of ethnographic research, a theoretical standpoint on generalizability may conflict with the practical implications of that standpoint, both for the formulation of policy and in assessments and review for scholarly publication and other forms of public dissemination. Few, if any, ethnographers enjoy the privilege of avoiding the need to imagine how they would explain their ethnographic findings to a group of respondents or reviewers who are mainly quantitative researchers. More often, ethnographers must attempt such explanations as a fact of the peer-review process in academic publishing and in the pursuit of research funds, wherein they can expect quantitative scholars to be in the position of reviewing their work (see Small 2009).¹

Approaches to sampling and case selection across methods have consequences for how translation, integration, and scientific commensurability occur—or fail to occur—between ethnographic and quantitative epistemologies. By examining sampling and case selection approaches, in theory and in practice, we reveal fault lines in the larger and recurring problematics of generalizability and validity. Our provocation is that, in encounters (chosen or unchosen) between ethnography and quantitative research, which often provoke contested claims of generalizability, qualitative researchers have more to gain from a mixed-methods dialogue than they may fear losing through methodological assimilation. The pressure for qualitative research to assimilate to quantitative conceptions of knowledge and conventions of knowledge production is a historical fact in the field of social science. New, however, is that qualitative research has become more mainstream (Lamont and Swidler 2014) and thus increasingly shapes social scientific conventions to which quantitative studies must also strain to adapt, often through the use of ethnographic “cameo appearances.” We proceed from the premise that a common research goal unites the field of ethnography, which is to reveal what the world under analysis tells us about the world at large, or at least about larger worlds. Sampling concepts and procedures used in quantitative analyses offer potential tools in service of this core ethnographic objective and stand to enhance rather than assimilate theory, representation, and notions of generalizability underpinning qualitative research.

In this paper, the coauthors, each with distinct methodological orientations—Hancock, an ethnographer; Sykes, a demographer and quantitative sociologist; and Verma, who uses qualitative and quantitative methods in interdisciplinary research—draw on their experiences grappling with the practical consequences of these tensions for research design and implementation. The authors assert that ethnography should not be content with making mere “cameo appearances” in

purely quantitative or so-called MMR, nor should ethnography deploy cameo appearances of quantitative data to buttress claims of generalizability. Sampling, as we show, is an underlying explanation and therefore a promising source of solutions in both ethnographic and purely qualitative research, as well as in MMR approaches.

Gary Alan Fine and Black Hawk Hancock (2017) document four major developments in ethnography over the last 15 years, each of which has become salient for understanding ethnography as it is now practiced (see also Sánchez-Jankowski 2017): (1) the role of technology in conceptualizing, capturing, and visualizing data²; (2) embodiment and use of the body as an instrument of interpretation; (3) the growth of “urban ethnography”; and (4) new models of public sociology (see also Hancock 2016). To these four developments, we add a fifth—the availability of quantitative data and the possibility of conducting mixed-methods ethnographic research. While the implications of this new development also extend to quantitative research and a variety of mixed-methods approaches, here we focus on the stakes for ethnography in particular.

Thus, the new work of the ethnographer now entails thinking through quantitative demands on research, which helps to crystallize a thematic set of problems in ethnography anew: translation, integration, and commensurability. We first describe the tensions that have arisen in each field with respect to notions of representation and validity, reproducibility and replication, and generalizability and theory in social science research. We then articulate sampling as an explanation for dilemmas and controversies within each of the fields of ethnography and MMR. Sampling explanations lead the authors to contend, first, that MMR is problematic without qualitative-quantitative integration at the research design stage—that is, that MMR studies must push well beyond the “cameo appearance” approach if they are to overcome mere methodological tokenism—and, second, that what we conceive as *design-level integration* cannot occur without sampling specification and alignment across quantitative and qualitative methods in a given study. As a first-order solution, we reference several potential innovations that may be deployed in ethnographic research to specify sampling and to align sampling, when qualitative or ethnographic methods are blended with quantitative methods, thus helping to resolve (or, at the very least, more properly translate between) otherwise incommensurate notions of generalizability across methods. We conclude with longer-term solutions, by framing the possibilities and provocations of a mixed-methods dialogue for twenty-first-century research, curriculum development, and training, including for purely qualitative scholarship and within the particular field of ethnography.

The Challenges of Translation, Integration, and Commensurability in Ethnographic and MMR

Controversies around translation, integration, and commensurability across methods and disciplines have taken on particular urgency among ethnographers and quantitative researchers with explicit commitments to methodological “pluralism” (Lamont and Swidler 2014:153; see also Lamont and White 2009). Purely qualitative and ethnographic researchers, however, are implicated no less. In these debates, the core issues of translation, integration, and commensurability have often remained implicit. We are not the first to recognize that it is not just the terminology used by qualitative and quantitative researchers to evaluate scholarship that differs, but often their epistemological and ontological premises of the social world are also implicated in these debates. Methodological *translation* refers to common and reliable scientific understandings that retain their integrity despite local contingencies and across domains of time and space (Star and Griesemer 1989). The surface-level problem of translation reflects the underlying substantive problems of scientific commensurability and integration across methods. Scientific *commensurability* entails “the expression or measurement of characteristics normally represented by different units according to a common metric” (Espeland and Stevens 1998:315). The craft of *integration*,

then, is in rendering distinct methodological modes of inquiry into scientifically commensurate forms of knowledge production.

Like Andrew Abbott's (2004:3) framing of science as a "conversation" between methods, Mario Luis Small (2009:10) describes scientific methods as "languages" in "that they constitute systems of thought, with terms and ways of framing problems that are specific to their systems." The problem ethnographers increasingly face in the field of social inequality research, according to Small (2009:8, emphasis added), is that ethnographic studies may be reviewed and evaluated by "scholars who are experts on the *subject matter* without necessarily being experts on the *method*." Small (2009:10) argues that, rather than "imitating" the language of classical statistics, for ethnographers, "solutions should involve developing alternative languages and clarifying their separate objectives."

The challenge of translation occurs not only between the ethnographer and the quantitative methodologist who may be reviewing his or her work; increasingly, an even deeper kind of translation must occur *within* a single research design that blends quantitative and ethnographic methods:

Probably the most important skill for the mixed methods researcher today will be the ability to write and think across not only methodological techniques but also epistemological perspectives . . . Translation involves not merely defining such terms and their significance but also the more difficult task of communicating convincingly core assumptions about quality, reliability, validity and the aims of research inquiry. (Small 2011:79)

The challenge of translation is thus symptomatic of the underlying challenge of integration in MMR designs (Bazeley 2009; Bazeley and Kemp 2012). The multiple ways in which MMR designs have been classified in the literature speak to the various levels of integration that have actually (or conceptually) been achieved (Axinn and Pearce 2006). For example, integration has been defined in MMR literature according to the stage of research at which qualitative and quantitative data and modes of analysis come together (in initial sampling decisions, data collection, and/or in the later stages of data analysis). Alternatively, MMR integration can be described in terms of whether qualitative and quantitative methods are deployed "sequentially" or "concurrently," as well as whether MMR research designs are "nested" or "non-nested"—that is, whether multiple data types are collected from the same individual or case, allowing for within-subject confirmation (Lieberman 2005). A final form of MMR integration entails whether an individual or case is studied from multiple methodological standpoints (Small 2011).

There remains much disagreement among mixed-methods researchers not only about how best to classify these various forms of MMR but more essentially which kinds of designs should qualify as truly integrated MMR (e.g., Guest 2012; Hall and Howard 2008; Leech and Onwuegbuzie 2009). For example, despite the common understanding of "triangulation" in qualitative research as the measurement or observation of a given individual or case from multiple locations or standpoints as a way of validating findings (May and Pattillo-McCoy 2000), "triangulation" in MMR may be akin to "non-nested" designs, which represent a more limited form of quantitative-qualitative integration than "nested" designs (e.g., Denzin 2012; Mertens and Hesse-Biber 2012; Tashakkori and Teddlie 2003b).

The twin quests for integration and translation—not only across methods but within MMR designs—are, in turn, manifestations of the core question of commensurability (Small 2011). How can quantitative and qualitative methods be truly integrated within a single research design without attending to and somehow satisfying their distinct epistemological and ontological premises? Quantitative research, often using large-*n* datasets based on randomly selected samples so that causal inferences and associations can be drawn and generalized to a larger population, has been described as proceeding on a "positivist" or "postpositivist" paradigm, wherein "truth" is

understood as having an objective, independent, and knowable existence. Qualitative research, on the contrary, can be described as proceeding on a “constructivist,” “interpretivist,” or “hermeneutic” paradigm, wherein the existence of an objective, knowable, fixed “truth” is questioned and viewed as dependent on situated, subjective interpretations (Lincoln and Guba 2005; Hancock and Lorr 2013; Haraway 1988; May and Pattillo-McCoy 2000; Smith and Heshusius 1986).

While probability-based sampling is predominant in quantitative research, nonprobabilistic purposive and convenience sampling approaches are most often used in qualitative research (Lucas 2016), which tends to emphasize the depth (rather than breadth) of information that can be gleaned from each selected unit. Moreover, nonprobability observations enable qualitative researchers to examine “outlier” cases with greater detail because such cases are extreme, deviant, or disconfirming of theory or findings (Burawoy 1979; see also Axinn and Pearce 2006; Teddlie and Yu 2007). Deviant case analysis assumes that the outlier case can be investigated in relation to nondeviant or normative cases. However, when cases are nonrandomly selected, identifying the location of a “deviant” case in a distribution of cases sampled nonprobabilistically makes little sense without having a reference point of the normative case within what Loïc Wacquant (2002:1479) calls “the broader galaxy” of potential cases. A random sample is first required to construct the distribution of cases from which the deviant case is then identified and known to, in fact, deviate from the norm of cases.

Despite the distinct logics undergirding qualitative and quantitative sampling schemes, contemporary ethnographic studies published in mainstream U.S. sociological journals commonly present findings in terms of causation and generalizability (see Abend, Petre, and Sauder 2013). In response to ensuing critiques that ethnography has adopted little more than the patina of causality, and in recognition of what seems to be an epistemic paradigm that demands publishable ethnographic research to yield causal, generalizable claims, a dawning methodological literature has attempted to articulate a kind of causation (and associated causal logics and languages) tailored specifically to ethnography (e.g., Katz 2001, 2002, 2015; Luker 2008; Small 2009, 2013; Sørensen 1998; Tavory and Timmermans 2013). As in the MMR field, pragmatism provides the philosophical basis for this alternative conception of causality in the ethnographic research field. The pragmatic logic of abduction is put forth as an independent basis for scientific discovery, in which knowledge production proceeds by pursuing the best available explanation for the time being and following chains of reasoning to continually seek to improve current explanations (e.g., Tavory and Timmermans 2013). Abductive reasoning leads to a particular conception of theory as explaining processes and mechanisms that relate various sets of conditions (e.g., Sørensen 1998) rather than the positivistic conception of theory as identifying and isolating discrete causes of particular outcomes (e.g., Popper 1963). The implication is that knowledge production and theory building proceed pragmatically, by following chains of reasoning to continually improve the “good enough” explanation, rather than through falsification.

However, pragmatic conceptions of causality may be limited in their ability to arbitrate the divergent premises of quantitative and qualitative methodologies. As a result, qualitative-quantitative integration without attending to divergent epistemologies may introduce bias in MMR research findings, as well as when ethnography or quantitative research makes its “cameo” appearance in less formalistic blendings of methods and data. We examine the manifestation of these biases through three vectors of controversy in ongoing ethnographic and MMR: *representation and validity*, *reproducibility and replication*, and *generalizability and theory*.

Representation and Validity

Because the epistemological and ontological assumptions that led to the collection of different types of data in the first place may not be commensurate, if the goal of an MMR study is validity

convergence across methods, integration at the later stages of data analysis can threaten internal validity because the interpretations of different forms of data are themselves likely to diverge (Mertens and Hesse-Biber 2012). It follows that quantitative-qualitative integration ought to be built into the design of the study itself (Fielding 2012). What we conceive as *design-level integration* of ethnographic and quantitative methods, however, must resolve the differences between ethnographic and quantitative conceptions of “validity.” Ethnographers conceive of validity in terms of *representation*, while quantitative researchers distinguish between *internal* and *external* validity, and define the latter in terms of statistical *representativeness*.

The issue of representation—how the people, places, and contexts under study are portrayed—may be one of the most pressing contemporary controversies in ethnography. As Wacquant (2002) argues, there is often a great deal of romanticization, sanitization, and glamorization of subjects in ethnographic analysis. Romanticism creates “truncated and distorted” accounts of subjects to highlight the “goodness” or “decency” of those under analysis; sanitization engages in “systematically downplaying or suppressing information that would taint the saintly image” of subjects; and glamorization refers to how the actions of research subjects may be idealized to convey an inner worth of character (Wacquant 2002:1469).

At the core of representation, internal validity hinges on ethnographic perceptions and categorizations that may introduce bias. For example, representations are formed through the proximity one has to his or her subjects. An ethnographer’s relation to subjects entails issues of reflexivity and positionality (closeness/distance in one’s involvement and how one views oneself in the field site, as well as how those under study view the researcher). This closeness between the ethnographer and subjects can be mitigated, according to Pierre Bourdieu (2003:281), through “participant objectivation”:

“Participant objectivation,” as the objectivation of the subject and operations of objectivation, and of the latter’s conditions of possibility, produces real cognitive effects as it enables the social analyst to grasp and master the pre-reflexive social and academic experiences of the social world that he tends to project unconsciously onto ordinary social agents.

Bourdieu’s reflexive model attempts to extricate ethnography from the dual traps of subjective and objective fallacy. On one hand, the subjective fallacy, or “going native,” occurs when the researcher ceases to differentiate from the subjects and adopts their viewpoints, participating in social life just as those under study do, and in so doing, ceases to operate as researcher (what Brubaker 1993:227 describes as “one-sided subjectivist”). On the other hand, objective fallacy threatens validity when the researcher imports abstract forms of knowledge to make sense of observations, applying concepts, classifications, and categories without taking into account how those under study interpret, experience, and explain the world in their own words and from their own perspectives (see, for example, Hancock and Garner 2009; Wacquant 2008).³

The ethnographer must, therefore, be able to parse the difference between what people say and what people actually do (Jerolmack and Khan 2014; Lamont and Swidler 2014; Lucas 2014).⁴ As Bourdieu argues in his concept of “participant objectivation,” the place of interviewing in relation to participation takes on an important role. The ethnographer not only has to observe and document properly but must also attend to people’s own self-described realities to prevent supplanting the subject’s understanding of the social world with the researcher’s own interpretation or evaluation (Bourdieu 1999).

Due to the complexities of representing multiple realities, ethnographic findings are predominately written in narrative form. The folk concepts and categories deployed as narrative devices to define groups under study, such as Elijah Anderson’s (1999) “decent” and “street,” may be misconstrued as if they were analytic or objectively real categories. Similarly, the messy reality and complexity of social worlds may become obscured through the literary constructs of

particular “characters,” “types,” “roles,” or “occupations” that ethnographers use to describe how research subjects are positioned within the social space under analysis (Wynn 2011). The narratives through which ethnographic findings are presented are often implicitly premised on the essential validity of these categorizations, and the reader is (often implicitly) expected to trust the accuracy of the observer and trust that he or she rendered or translated experiences faithfully—in other words, that the “story” one is reading is more than just literature or a journalistic account, but rather a scientifically valid rendering of any given social world (May and Pattillo-McCoy 2000).⁵ Alice Goffman’s (2014) much-discussed *On the Run: Fugitive Life in an American City* has breathed new life into these recurring issues in the discipline of sociology and beyond (e.g., Cohen 2015; Lewis-Kraus 2016; Lubet 2015; Platt 2016; Ralph 2015; Rios 2015; Sharkey 2015; Wilson 2014).

However, these limitations have broader consequences when ethnographic and quantitative research come together in studies that blend multiple methods. Because the analytic categories derived from field observations may be used in quantitative analyses to test hypotheses, statistical relationships between ethnographic representations and survey options may converge to introduce and amplify bias into the very essence of a study. If “all matters related to ethnography flow from a decision that originates at the very beginning of the research process—the selection of the basic object of analysis” (Desmond 2014:547), then design-level integration for mixed-methods studies must account for the qualitative decisions and limitations that ultimately contextualize quantitative findings of the social world and that motivate the development of new conceptual measures in quantitative social surveys using qualitative fieldwork. Otherwise, the “bounded entities delimited by location or social classification” that “restrict the kinds of arguments available” to ethnographers (Desmond 2014:547) fail to extend, *ipso facto*, to mixed-methods researchers who do not recognize, or reject, the need to attend to such constraints and account for these differences in their research designs.

Within an MMR design, the ethnographic conception of validity as representation appears commensurable with the quantitative conception of *internal* validity but not *external* validity. The quantitative conception of internal validity is how “well” the study was carried out (Frankfort-Nachmias and Nachmias 2008). However, if, for the ethnographer, “extrapolation is in fact based on the validity of the analysis rather than the representativeness of events” (Mitchell 1983:190), then valid ethnographic representation seems incommensurable with the statistical representativeness required to establish what quantitative researchers define as *external* validity (i.e., generalizability to a broader population).

Reproducibility and Replication

In addition to statistical representativeness of the sample observed, another premise of validity in quantitative research is that similar results would be found through replication of the study. However, while the replication of a quantitative study seems rather straightforward in principle (if not always in practice), this is not the case in ethnography, where the question of replication, or reproducibility, has been another flash point of controversy in research on social inequality.

Few ethnographic studies have attempted formal replication. Michael Burawoy (1979, 2001) executes a subjective analysis by comparing his own experiences in a factory with the same ecological context that was studied 30 years earlier by Donald Roy (1959). Burawoy’s extended case study method affords ethnographers a rare opportunity to explore the reproducibility of an ethnographic study. Burawoy deftly documents how his experience differs greatly from Roy’s due to changes in ideology, market relations, and technology to highlight how positionality and reflexivity matter for ethnographic replication.

Critiques of Eric Klinenberg’s (2002) book, *Heat Wave: A Social Autopsy of Disaster in Chicago*, represent a contemporary manifestation of the problem of reproducibility in the field of

ethnography. Mitchell Duneier (2004), for instance, charges Klinenberg's account with not being reproducible due to poor ethnographic documentation (see also Duneier 2006; Klinenberg 2004, 2006). Duneier calls into question Klinenberg's findings after recanvassing the area and interviewing residents two years later. In Duneier's attempt to reproduce Klinenberg's study by filling in what Klinenberg seems to have missed, Duneier retraces the story; but in doing so, Duneier gains access to different people at a different point in time and under very different conditions.⁶

Mixed-methods and quantitative studies must also contend with both spatial and temporal dimensions of analytic categories derived from ethnographic research. Ethnographic field sites often change over time or even disappear. Loïc Wacquant's (2003) boxing gym was long gone by the time *Body & Soul* was published, and Black Hawk Hancock's (2013) study of the Lindy Hop revival during the late 1990s and early 2000s has since faded from popular attention. Both examples are bound to a period, representing a particular snapshot in time that inherently resists perfect reproduction in the present.

Despite the temporal and spatial challenges of ethnographic replication, the reproducibility of a qualitative study could be put "on trial" through the evaluation of facts (Duneier 2011:6). Another viable method of assessing discordant ethnographic findings would require reanalyzing field sites to understand and to discover why the phenomena could not be replicated. Such an approach would unmask the barriers to replication, highlighting differences in perspective (May and Pattillo-McCoy 2000), site access, and temporal change between ethnographic studies, which could be considered emergent knowledge for its own sake (Burawoy 1979). In addition, replication has been proposed as a way of reaching "saturation" to validate findings through the pursuit of negative cases (Desmond 2014; Katz 1997; Small 2009). The limitations of replication, then, must be confronted by ethnographers (Wacquant 2005) if the aim of the ethnographic study is to go beyond "existence proofs" (Lucas 2014) or "shedding light on" a problem or process (Abend et al. 2013).

Generalizability and Theory

From a quantitative research perspective, the specific, changing spatiotemporal worlds and the relatively small number of nonprobabilistic cases in ethnographic research make generalizability to populations one of ethnography's major challenges for several reasons. First, there are multiple nonprobability sampling techniques in qualitative research (such as convenience, snowball, respondent-driven, purposive, or theoretical sampling). Quantitative analysis is premised on probability-based sampling to generate a statistically *representative* sample, in which the assignment probability of each individual or case is a known value (and, in some cases, known to equal zero and thus not considered to be contained in the population from which the sample is drawn). When it comes to ethnographic work, the notion of *representative* becomes highly problematic, as does the concept of replication, which, in quantitative research, is a valid method of confirming findings only because of random assignment (see Lucas 2014). That is not to say that ethnographers cannot create representative samples, but to do so requires the development of strategies that go beyond the conventional snowball approach where researchers are introduced to members of a community, who then introduce him or her to another member, and so on (Lucas 2016). The value of snowball sampling in ethnography is that it purportedly leads ethnographers to more closely approach "saturation" as an indication that they have enough empirical data to generalize or validate their findings (Dixon, Singleton, and Straits 2016).

Although alternative languages have been developed to translate concepts and findings between ethnographers and quantitative researchers (Small 2009), the development of alternative languages is not a solution to commensurability problems *within* a single research design that aims to blend qualitative and quantitative methods. The purpose of probability-based sampling within quantitative research is largely to introduce a systematic and

reproducible method of respondent (or case) selection, thereby minimizing researcher bias in units that are sampled. As seen through a quantitative lens, the ethnographic concept of “saturation” and the selection of additional “necessary” cases, which are determined by the researcher’s decision to observe a particular case or individual in the first place (whether according to theory, convenience, or other criteria), appear as little more than the accumulation of bias (Berk 1983). The necessary ingredient for generalizability in a quantitative study is not more cases per se, but the reduction of bias in which cases or individuals are observed (Lucas 2014). As Bryan L. Sykes et al. (2017) show with simulated ethnographic and real-world quantitative data, even when case saturation is reached in qualitative studies—allowing for specific themes and narratives to be coded as processes and mechanisms of a larger system—failure to align the nonrandom sampling distributions from ethnographic research with that of quantitative studies produces substantial bias in mixed-methods findings, compromising the overall generalizability of both methods. For this reason, Sykes et al. argue that aligning *sampling* across quantitative and qualitative data is a straightforward and essential way to achieve commensurability in ethnographic MMR.

While snowball sampling does not undermine ethnography, what ethnographers need to focus on is not the *number* of cases they have—because more cases do not imply representativeness—but the *types* of cases needed to represent a full distribution of perspectives, categories, locations, times, and experiences (see Lucas 2014; Wacquant 2002). To gauge “necessary” cases, the researcher has to know the field to identify which cases those are, which is often a very iterative process. Would Mitchell Duneier’s (1999) *Sidewalk* be the same had he not encountered Hakim, or would Wacquant’s (2003) *Body & Soul* be different were he not to have met Dee Dee Amour? As William Kornblum (2004:176) argues, “[e]thnographers often find that the discovery of a mentor, someone who generously unlocks doors and shares invaluable experience with a naïve outsider, is a critical turning point in the research process.” These individuals are not just epicenters of their social worlds, they are the necessary cases for the ethnography. In ethnographic work, the number of cases is not as important as the necessary case, for either entry or access to a social world or milieu; they are also key nodes within the network of a particular community, as leaders and characters, who carry influence and authority in defining the social worlds in which they are embedded (see also, for example, Eason 2017).

The second key issue, in relationship to generalizability and ethnography, is the research design and the role of theory. Ethnographers continue to work from two different theoretical directions. The first approach, being inductive, proceeds from the empirical data and inductively draws out findings by using theory to test cases (here, theory is more implicit). In this approach, the creation of “sensitizing concepts” drives the analysis and ground theory (Glaser and Strauss 1967). The second direction begins with a theoretical frame and then undertakes deductive analysis by searching out empirical data with which to confirm or modify the theoretical framework (here, theory is more explicit). While there has been much discussion around how to integrate theory and its multiplicity of uses (see, for example, Snow, Morrill, and Anderson 2003), no consensus has emerged on how to proceed, for as William Julius Wilson and Anmol Chaddha (2009:562–63) observe, “in some ethnographic studies the theoretical insights are neither strictly deductive nor inductive, but represent a combination of both,” leading them to conclude that “the most creative ethnography reflects this synthesis.” Whether through the extended case method (Burawoy 1979), symbolic interactionism (Fine 1987), ethnomethodology (Sudnow 1978), carnal sociology (Desmond 2007; Hancock 2013; Mears 2012; Wacquant 2003), or a number of other frameworks, ethnographers begin at either end of the spectrum and work their way through their field site. In either case, ethnography as social science is always theoretically driven because it helps researchers answer the question: *What does the social world under analysis tell us about the world at large?*

New Work for the Twenty-first-century Ethnographer: Engaging Generalizability through Sampling

Ethnographers need not cede ground on generalizability. They can go beyond theoretical abduction and approach generalizability in the statistically representative sense by integrating basic sampling premises and procedures. This ability to make generalizable claims, we contend, is the value-added of engaging mixed-methods approaches in ethnography—in other words, to optimize breadth as well as depth (Sykes et al. 2017).

Ethnography is subject to recurring critiques over case selection, which implicate representativeness, generalizability, and ultimately validity. For example, Wacquant (2002) advances a particular critique of a number of ethnographic accounts, challenging ethnographic validity and conclusions on the grounds that case selection, observations, and interviews within cases did not proceed according to standard research methods and thus failed to adequately connect data with theory. As iterative as this process may be for ethnographers, Wacquant is not the only scholar to argue that a prior conceptualization of the research question(s) at hand, and the possible empirical and theoretical landscapes within which the objects of inquiry could be situated, remains a first-order task in the design of ethnographic investigations (see, for example, Desmond 2014). Here, the problem is that some ethnographies begin the research process, including case selection and data collection, based on interest, curiosity, and/or convenience. Wacquant (2002:1481) characterizes these problematics as “happening upon” field sites, “fishing for questions,” and the dangers of researcher “projection” of their personal interests.

However, such critiques are by no means unique to ethnography. Even purely quantitative studies can often only approximate unknown social distributions in the real world. Critiques such as Wacquant’s (2002:1479) take issue not with the ethnographer’s inability to adequately approximate a context she or he is often only just discovering but rather that ethnography rarely seems to consider “the broader galaxy” from which cases might be selected. Quantitative research uses probability-based sampling to avoid such pitfalls. Ethnography can utilize such sampling concepts and procedures as solutions to these common problematics of case selection (see Lucas 2016; Sykes et al. 2017).

For example, Wacquant (2002) draws attention to how quantitative data could have been leveraged in several ethnographic studies, which could be taken as an implicit argument for MMR. Indeed, engaging multiple methods, we argue, is emerging as a distinct practice of ethnographic work in the twenty-first century. At the same time, Sykes et al. (2017) illustrate the dangers of MMR when sampling is not aligned across ethnographic and quantitative research strands within a single study, which represents an increasingly prevalent form of “cameo appearance.” Even the most rigorous empirical assessments, whether qualitative or quantitative, must contend with the inherent assumptions upon which their particular methods depend. A consequence of failing to recognize the limits of particular methods can lead to incomplete and invalid conclusions as if they were accurate, scientific representations of the social world.

The field of MMR has already begun to engage sampling problematics. Charles Teddlie and Fen Yu (2007:91–92) observe that, “[i]n particular, very few articles that we analyzed included a concurrent MM design with an explicit discussion of both the purposive and probability sampling techniques used to generate it.” In their “Mixed Methods Sampling: A Typology with Examples,” Teddlie and Yu (2007:97) go on to emphasize,

Researchers should be sure to follow the assumptions of the probability and purposive sampling techniques that they are using. In several of the MM studies that we analyzed, the researcher started out with established probability and purposive techniques but violated the assumptions of one or the other during the course of the study . . .

They offer another guideline as well:

The sampling strategy should allow the research team to transfer or generalize the conclusions of their study to other individuals, groups, contexts, and so forth, if that is a purpose of the MM research . . . It should be noted that not all MM studies are intended to be transferred or generalized.

Teddlie and Yu's (2007:98) final, if obvious, guideline is that "researchers should describe their sampling strategy in enough detail so that other investigators can understand what they actually did . . ." Following Teddlie and Yu's cue, we draw attention to one source of the problem: the lack of social science doctoral training in blending qualitative and quantitative research, which points to the need for curriculum development and requirements for all PhD students in MMR design. Many social science graduate students are required to take at least one foundational statistics course, which conveys the basic principles of probability-based sampling. However, students who go on to use qualitative and ethnographic methods may never return to the statistical logics of sampling in constructing future research designs. At the same time, summoning cameo appearances by quantitative data and analyses in ethnographic work is increasingly common in research designs that attempt, perhaps unknowingly, to assimilate statistical logics that seemingly afford them generalizable claims. It would seem, then, that courses are necessary for both qualitative and quantitatively oriented students that make explicit the differences in sampling and case selection premises across multiple methods, while training them in how to align sampling in MMR.

Training the Twenty-first-century Ethnographer: Establishing a Mixed-methods Curriculum in the Social Sciences

The promises and perils of twenty-first-century ethnography require structural changes to how graduate students are trained in PhD programs. We constructed a list of the top 20 sociology programs from the 2017 *U.S. News and World Report Best Graduate Schools* rankings and coded whether each program required a quantitative, qualitative, and mixed-methods course for advancement to candidacy based on information listed on each department's Web site.⁷ We also coded whether the department offered a formal course or workshop on MMR as a possible elective for graduate students. Although mixed-methods designs may be covered in subsections of required general research methods courses, we exclude general courses from our analysis because we were interested in identifying classes dedicated specifically to mixed-methods training.

Table 1 presents the percentage of top 20 sociology programs that require at least one graduate course in quantitative (probability, elementary statistics, linear models, etc.) and qualitative (ethnography, historical/archival, interview, etc.) methods.⁸ The results are striking. All departments, at both public and private universities, require PhD students to be trained in quantitative methods, but only a fraction of the same departments require students to be trained in qualitative methods. Notably, only one in five programs requires graduate student coursework in qualitative methods. These asymmetrical requirements in PhD curricula have the capacity to leave quantitative researchers untrained in methods that they may not only be in the position of evaluating as peer reviewers (see Small 2009:5) but may also employ later in their careers, which may lead them to be less thoughtful about summoning ethnographic "cameo appearances" to explain statistical findings. Similarly, qualitative scholars who elide their quantitative training risk recreating the same research dilemmas and problematics that lead to recurring debates about validity, representation, and generalizability, particularly when they summon quantitative "cameo appearances" to contextualize field sites without systematically engaging the distributional properties and characteristics of their selected cases (Sykes et al. 2017).

Table 1. The Percentage of Top 20 Sociology Doctoral Programs that Require at Least One Graduate Course in Quantitative and Qualitative Methods, or that Offer a Mixed-methods Course as an Elective, by University Type in 2017.

University Type	Required coursework			Possible elective
	Quantitative	Qualitative	Mixed-methods	Mixed-methods
Private ($n = 10$)	100%	20.0%	0.0%	10.0%
Public ($n = 11$)	100%	18.2%	0.0%	0.0%
Total ($n = 21$)	100%	19.0%	0.0%	4.8%

Source. Authors' calculations of curriculum requirements.

Note. The top 20 sociology departments included in this analysis are based on the 2017 *U.S. News and World Report Best Graduate Schools* ranking. Five departments were tied for #17, resulting in a sample size of 21 instead of 20. See Table A1 of the appendix for a list of all departments included in the analysis.

Our solution for resolving a number of ethnographic controversies and preventing future cameo appearances *in* and *by* both quantitative and qualitative research is to increase training in MMR for all social science PhD students, regardless of whether they intend to conduct avowedly mixed-methods studies in their future careers and scholarship. Currently, no program in our analysis requires mixed-methods coursework, and only one program offers a mixed-methods course or workshop to its graduate students as an elective. It is worth noting that the doctoral program that offers mixed methods as an elective also requires coursework in *both* quantitative and qualitative methods. Formal training in these three distinct epistemological approaches, we argue, is critical for articulating and explicating the relative embedded assumptions of each methodological orientation and for resolving discordant or divergent findings when multiple methods are “mixed” together.

The proposed curriculum for MMR must engage how to align sampling in studies that blend multiple methods, particularly when cases have been selected probabilistically and nonprobabilistically. Scholars have effectively utilized many viable options for designing research that fully integrates quantitative and qualitative sampling and analytic methods in MMR (see, for example, Axinn and Pearce 2006; Pearce 2002; Sánchez-Jankowski 1992; Small, Jacobs, and Massengill 2008; see Sykes et al. 2017 for extended discussion of these approaches). Our call to broaden the methodological training of all graduate students is consistent with scholars who have identified curricular limitations in qualitative and mixed-methods training (see Mahoney 2004; Pager and Quillian 2005). As top sociological journal editors increasingly publish MMR (Jacobs 2005), the practical implications for the careers of future sociologists may partly depend on being well-trained in how to mix multiple methods.

Conclusion

Is the discipline “social” or “science”? Or, under what conditions can it be both? Sociology seems to walk a tightrope that attempts to balance social observations of the world with methods that subject the social world itself to the scientific gaze. Pierre Bourdieu (1990:25) argues that, regardless of which position one takes, most sociological work fails to break away from the dichotomy between subjectivity and objectivity as the “theoretical modes of knowledge.” Yet, the blending of subjective observations and objective categorizations matters for how we have come to practice ethnography in its mixed-methods form by the twenty-first century. Similarly, the integration of distinct epistemologies to make sense of the social world has inured quantitative researchers to contextualize their “objective” statistical findings with “subjective” ethnographic accounts in ways that may be invalid.

The emergence of MMR in the social scientific enterprise calls for more than a first-order Bourdieuan “reflexivity”; a deeper mode of introspection about translation, integration, commensurability, and ultimately the validity of methods used in scientific investigation requires Kantian (Kant 1998:367) transcendental reflection, or reflection on reflection,

the action through which [a researcher] makes the comparison of representations in general with the cognitive power in which they are situated, and through which [the researcher] distinguishes whether [those representations] are to be compared to one another, [thusly] belonging to the pure understanding or to pure intuition.⁹

Transcendental reflection, then, is the second-order activity of thinking about what is conceptually possible methodologically, including the limits of existing epistemologies and the boundaries they place on the genesis of knowledge (see, for example, Goldman 2012). This mode of reflection encompasses inquiries into the theoretical, practical, and empirical limits of discovering knowledge about the world, and, consequently, how research design decisions at the outset limit or enhance scientific knowledge production and eventual claims to scientific expertise. The dialectics of reflection provide a Kantian method for critically interrogating the contingencies of categories of thought as the foundations upon which all knowledge is attained, as well as how existing categories are products of methodological judgment, which may be limited in capacity and, therefore, biased in application (Longuenesse 1998). Ethical social science depends not only on Institutional Review Board (IRB) approval but more foundationally on transcendental reflection, which Kant articulates as “a duty which no one can neglect who wishes to establish an *a priori* judgment upon things” (Kant 1998:368).

Quantitative and qualitative researchers, given their distinct intellectual trajectories and specialized training, start with very different presuppositions in their commitments to creating knowledge in the social sciences. These presuppositions, both epistemological and ontological—in terms of what is identified; how what is identified is conceptualized; and in their attendant levels of systematicity, translation, validity, and generalizability—need to be reflected upon *transcendentally* if social science is to establish a more robust curriculum and deeper training in MMR for twenty-first-century ethnography. Researcher “reflexivity” and “cameo appearances”—in both quantitative and qualitative scholarship—are insufficient scientific approaches for achieving the potential of MMR to balance “a conversation between rigor and imagination” (Abbott 2004:3).

To have a science of what people actually do and how they understand and act in the world, we must take account of how those actions occur within the external structures that, although they may not be formally conceptualized, nevertheless shape and mold social life. Only by making explicit this gap between the subjective knowledge that actors have of the world and the objective knowledge gained through structural analysis, can we begin to construct a reflexive theory of society that combines the objective and the subjective in the construction of knowledge without falling into a false dualism. Small (2009:28) uses the metaphor of building “boats that try to fly” rather than building “boats that sail effectively.” MMR offers a way out of this dualism, and even the possibility for building research vehicles that can both fly and sail, but only if the blueprints fully integrate and align sampling and case logics across qualitative and quantitative methods. If we are to build mixed-methods vehicles that effectively sail greater distances while ascending to new heights, the engines that propel this multiple method vehicle require curricula and training for future social scientists that transcend the performance of “cameo appearances” to stage pseudo-replicas of validity and generalizability.

Appendix

Table A1. The Top 20 Sociology PhD Programs in the United States in 2017, Listed in Alphabetical Order.

Columbia University
Cornell University
Duke University
Harvard University
Indiana University–Bloomington
New York University
Northwestern University
Ohio State University
Pennsylvania State University–University Park
Princeton University
Stanford University
University of California–Berkeley
University of California–Los Angeles
University of Chicago
University of Michigan
University of Minnesota–Twin Cities
University of North Carolina–Chapel Hill
University of Pennsylvania
University of Texas–Austin
University of Washington
University of Wisconsin–Madison

Source. 2017 U.S. News and World Report Best Graduate Schools.

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Notes

1. Mario Luis Small (2009:5) writes, “Today, ethnographers and qualitative researchers in fields such as urban poverty, immigration, and social inequality face an environment in which their work will be read, cited, and assessed by demographers, quantitative sociologists, and even economists. They also face a demand for case studies of poor, minority, or immigrant groups and neighborhoods that not only generate theory but also somehow speak to empirical conditions in other cases (not observed).”
2. See also Corey M. Abramson and Daniel Dohan (2015) and Corey M. Abramson et al. (2017) on the use of “heat maps” in analyzing and visualizing ethnographic texts and field notes.
3. Although purely quantitative research is not our focus in this article, we recognize similarly problematic manifestations in quantitative studies. For example, “p-hacking” is the quantitative analog, where the quest for statistical significance may obscure original findings, including the lack of original findings (Head et al. 2015).

4. Quantitative researchers also face this challenge, as survey respondents may be less than forthcoming in disclosing their beliefs and actions, highlighting the role of social desirability bias on controversial or sensitive topics like race and discrimination (Pew Research Center 2015) or social program participation (Meyer, Mok, and Sullivan 2009).
5. One example of restricted analytic categories to demarcate the social world is the term and usage of “down low”—the categorically racialized differentiation of gay male sexuality that stigmatizes the closeted nature of African American men who have sex with men, despite similarly concealed homosexual and bisexual proclivities among white men (Denizet-Lewis 2003).
6. Criticisms over reproducibility are not limited to ethnography, as quantitative research also faces similar obstacles (Broockman, Kalla, and Aronow 2015; van Aert and van Assen 2017).
7. Because of the controversy over the National Research Council’s rankings of doctoral programs in 2010 (see the official report by the American Sociological Association Ad-hoc Committee on the NRC Rankings 2011), and given our interest in using a more recent list of rankings that would align with contemporary curriculum requirements, we rely on the 2017 *U.S. News and World Report Rankings*. Our goal in using the *U.S. News* rankings is illustrative, and we make no claims about its validity. Also, five departments were tied for #17, resulting in a sample size of 21 instead of 20. In some instances, we visited the university course catalog to clarify required and elective courses when information could not be gleaned from department Web sites or sociology graduate student handbooks.
8. Table A1 of the appendix lists all departments in this analysis.
9. For a classical sociological treatment of Kant’s transcendental reflection, see Emile Durkheim’s ([1914] 2005:37–38) discussion in “The Dualism of Human Nature and Its Social Conditions.”

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