

## IN SEARCH OF A CRITICAL STANCE: APPLYING QUALITATIVE PRACTICES FOR CRITICAL QUANTITATIVE RESEARCH IN PSYCHOLOGY

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*Critical research seeks to understand the influence of hegemony through the experiences of oppressed groups. In this paper, we consider how core qualitative research practices, such as memoing to document positionality and to archive decision making, can align quantitative research with a critical epistemological stance.*

**Keywords:** *critical epistemology, memoing, methods, qualitative, quantitative*

### 1. Introduction

The second wave intersectional feminist movement birthed the phrase “the personal is political,” a rejection of the spurious divide between everyday experiences of oppression and political action to redress injustice (see Hanisch, 2017). By extension, research is political and value-laden by nature of being situated in sociohistorical and political contexts (Montero, Sonn, & Burton, 2017; Riger, 2017). From this perspective, psychologists can advance science through a critical epistemological stance that recognizes hegemony in scientific research and intentionally interrogates the consequences of systems of power through the experiences of oppressed groups. Historically, quantitative methods in psychology have not been aligned with the epistemological underpinnings of a critical approach. We contend that by adopting qualitative methodological practices, psychologists who use quantitative approaches can more intentionally align their research with a critical epistemological stance. In this paper, we draw from core qualitative research conventions to recommend practices for carrying out quantitative research in critical psychology.

### 2. Critical Psychology: Divergence from the mainstream

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Fox, Prilleltensky, and Austin (2009) define critical psychology as “...overlapping approaches that challenge mainstream psychology’s implicit and explicit support for an unjust and unsatisfying status quo” (p. 18). This includes a direct pursuit of social justice through theory, method, and approach, so that psychologists do not, intentionally or unintentionally, reproduce oppression and inequality through research. Critical epistemology, which is commonly associated with qualitative research in psychology, is different from a positivist epistemology, which assumes that a patterned and predictable reality exists and can be discovered through experiments and quasi-experimental research. Critical perspectives also differ from interpretive epistemology, which focuses on the subjective and intersubjective constructions of knowledge. Interpretive approaches are typically associated with qualitative research (Ross & Rallis, 2017), but can also be used to test causal relationships (Lin, 1998).

Critical approaches consider how power and privilege shape the narratives of our research and subjugate the experiences of oppressed groups. With attention to hegemony and power embedded in our sociocultural, political, and economic systems, a critical stance posits that ways of knowing do not simply exist, but are constructed via hierarchical ideologies that allow dominant groups to maintain authority and power while subjugating and oppressing non-dominant groups (see Hesse-Biber, 2017). Further, training in community psychology that takes a critical approach specifically emphasizes that truth is dependent on sociohistorical context and indistinguishable from subjective experiences. Mainstream psychology, however, overwhelmingly emphasizes positivist methods and ways of knowing in quantitative research. This leaves little room both for the complexities of individual experience we know to be true and for the intentional consideration of how positivist approaches replicate disparities and inequality (Fox et al., 2009). Critical psychological research is a means to uncover the effect of power structures on individuals and communities, deconstruct unjust social conditions, and increase empowerment and wellness among marginalized groups (Evans, Duckett, Lawthom, & Kivell, 2017).

Research questions from a critical epistemological stance will often differ from questions from a positivist stance or even interpretivist stance. Donna Mertens contends that, in mixed methods research, “qualitative and quantitative methods allow[s] for the collection of data about historical and contextual factors, with special emphasis on issues of power that can influence the achievement of social justice and avoidance of oppression” (Johnson, Onwuegbuzie, & Turner, 2007, p. 120). Extending this argument, quantitative research can uncover patterned and predictable systems of oppression and qualitative research can reveal the lived experiences, interpretations of power, and subjugation of these conditions. We recognize the importance of contributions from mixed methods research to using both quantitative and qualitative approaches to answer critical research questions. We further recognize the development and practice of Participatory Action Research (PAR), which involves the participants of the research in the research process, from research question design to data analysis and interpretation of results. In this way, participants are able to produce research on their own lived experiences. Building on Merten’s contributions to mixed methods research and recommendations from PAR, we contend that individual programs of research can indeed take a critical stance through quantitative methods, thus contributing to the larger body of critical research.

Critical epistemology in quantitative methods has been applied in several disciplines including higher education (López, Erwin, Binder, & Chavez, 2018; Stage, 2007), geography (Kwan & Schwanen, 2009), and intersectionality and feminist studies (Else-Quest & Hyde, 2016; Marecek, 2016), each offering methodological considerations for conducting critical

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quantitative research. Else-Quest and Hyde (2016) recommend the use of additive, multiplicative, and intersectional data analytic strategies to sufficiently address contexts of inequality. Stage (2007) advocates for the study of people and institutions “in the context of their particular circumstances” (p. 98) and global approaches aimed at cultivating research agendas that are inherently critical by questioning our models, methods, measures, and assumptions. These scholars recommend that we read broadly across related disciplines and consider questions that emerge from contexts that directly examine power and privilege.

### **3. How did we get here?**

This article was inspired by a methodological “identity crisis” during a Qualitative Methods course for doctoral students in psychology. This course is the only qualitatively oriented course in the department, and is offered as an elective, rather than a required part of the methodological sequence. Part of training in any discipline involves learning and internalizing the standards and expectations of the methodological traditions. Within this training, the validity of norms may be assumed and not questioned. Exposure to a new method with a different ontological underpinning can give scholars an opportunity to reflect on the assumptions that are built into their primary disciplinary training. The internalization of a methodological tradition paired with exposure to new methods and their epistemological assumptions can evoke “methodolatry” – the idea that one method gets at truth better than the other. For the graduate student authors (Brugh and Nance), this Qualitative Methods course brought to the surface a lack of alignment between our training in positivist quantitative research methods and the critical theoretical lens we are steeped in as community psychologists. Our theoretical training in community psychology specifically emphasized the importance of doing research that uncovers and challenges systems of oppression while aligning with the lived experiences of those within the system. However, traditional positivist quantitative methods left little room for research that takes a critical approach to the complexities of individual experience.

Taking a qualitative methods course afforded us exposure to a method that had built in practices explicitly aligned with the values of critical research espoused in community psychology theory. We began to question why the practices outlined in this article, which are standard when conducting and disseminating qualitative research, are not integrated into the standard reporting of quantitative studies, particularly those which claim or aspire to be “critical.” Throughout the qualitative methods course, we grappled with if and how our quantitative research aligned with a critical epistemology. We realized that being both critical and quantitative involves making changes to our methodological practices and presentation of results. We also realized that qualitative researchers have practices designed to accomplish those goals. We concluded that we can, and indeed do, practice quantitative research from a critical epistemological stance. Thus within this article, we argue that methodological practices from qualitative research can support the quest for scientifically rigorous critical quantitative psychological research.

Building on previous work in related fields (Else-Quest & Hyde, 2016; Stage, 2007), we offer practical recommendations for critical quantitative research that are rooted in the rich lessons of reflexivity and memoing from qualitative methodology. Memoing, in its most basic form, is the process of taking time for reflecting and writing notes and can occur throughout the research

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process (in British contexts this may be better known as a reflexive log). Writing memos is notably valuable for qualitative data analysis, when the researcher needs to keep track of a complex array of themes and connections between topics (Corbin & Strauss, 2015). Memos can also document interpretations of and reactions to data, serving as a tool to consider how bias and assumptions manifest through the research process. A core tenet of critical epistemology is the production of just representations of participants' own lived experiences (Ravitch & Carl, 2016). Memoing allows the researcher to reflect with intentionality and fidelity on the alignment of critical epistemology with the realities of research. Below we outline two recommendations for using memos to adhere to a critical epistemology in quantitative psychology.

#### **4. Recommendation 1: Examine positionality**

We recommend researchers practice using memos to reflect on and document positionality and integrate positionality statements in manuscripts for publication. Positionality asks the researcher to consider who they are in relation to the data and how their identity, experiences, and beliefs affect research question development, data collection, data analysis, and interpretation of results (Milner, 2007). In quantitative inquiry, psychological research tools include survey measures and experiments, and rigor involves showing that the data meet statistical assumptions. The context and background of the researcher are often ignored and seen as irrelevant to the validity of the experimental design. In contrast, qualitative researchers are understood as the data collection and analysis tool; thus, an examination of position is a core component of rigorous research (Ravitch & Carl, 2016). From a critical perspective, failure to address positionality weakens scientific rigor via the false assumption that researcher and research method are unbiased. Through memoing on positionality, researchers can document how they come to decisions in research and who they are in relation to the study participants, research questions, data, and analysis.

Ravitch and Carl (2016) argue that “Critically and ethically approaching data analysis necessitates that you think about (and articulate for your readers) how your role in the creation of the data affects the arguments you ultimately make” (p. 217). Research is shaped by sociohistorical context, including who has the power to frame narratives and determine which research topics are valuable, along with the researcher's own values, which affect research questions posed, methods chosen, analytic strategy, presentation and justification of research findings, and the publication venue. For example, pursuing research of interest may necessitate securing research funding that appeals to the mission of a funding agency. Additionally, the way in which a researcher approaches their topic of choice and chooses a venue in which to publish (or even choosing to pursue publication at all) is undoubtedly a product of their professional training, which may be subject to any number of disciplinary conventions and ways of generating knowledge. We recommend that researchers dedicate space in quantitatively oriented manuscripts to discuss positionality, including how they became involved in the research and relevant connections to the research topic or context. Position statements should follow Ravitch and Carl's (2016) recommendations and address how the researcher, research questions, and research participants are situated within the contexts of history/time, power, and privilege. This practice is expected in qualitative research publications where the researcher or research team explains how they became involved in the community of interest, experiences they have that

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suggest they are qualified to interpret findings regarding that community, and steps they have taken to consider similarity or difference between the research and the community. The practice of documenting positionality strengthens scientific inquiry as it allows us to interrogate the role of the researcher in shaping broader research investigations. From here, the field can more accurately examine what perspectives may be missing that can elucidate future research and help to reduce reproduction of inequality through research.

## **5. Recommendation 2: Archive decision making**

Archiving decision making encourages record keeping that benefits quantitative research for both ethical and practical reasons. Archiving decision making is often included in traditionally iterative methodologies, including qualitative or mixed methods research. Decisions are recorded via memoing and other reflective practices throughout the research process and are often archived in the methods and discussion sections of journal articles. In qualitative scholarship, this kind of documentation aligns the research process with an interpretive or critical epistemological stance. Failure to document decisions falsely presents the circuitous endeavor of research as a linear process. Research questions are mutable and sometimes reframed due to numerous factors, including availability of data or funding, new methodological or statistical approaches, feedback from reviewers, and influence of mentors or co-investigators.

Through documentation, scholars can interrogate the decision making process, create an audit trail, and acknowledge that research (including questions, methods, and assumptions) are value-laden (as described in Section 2). As Stage (2007) argues, “our finely developed causal models created a certain level of complacency with which we approached our studies” (p. 99). The burden, however, of exploring the value-laden nature of our tools falls on the researcher. In quantitative inquiry the emphasis on tests of significance in the absence of transparency around decision-making belies our attempts to dismantle power structures and align our critical epistemological stance with quantitative methods. By taking a critical approach to quantitative research, we can disavow ourselves of the idea that we are unbiased through documentation of the decisions that led to final conceptual and empirical models. Further, memoing to document methodological decisions is a practice that facilitates more precise replicability by creating the expectation that researchers include elements of the decision-making process in research reports, not just the final decision. We further recommend including data from these decision memos in the methods and results sections of research publications. Documentation within publications can include decisions regarding the operationalization of variables, inclusion and exclusion of variables in statistical models, and interpretation of results. The decision-making that goes into framing a research question and analyzing the resultant data is inherently value-laden, whereby the individual and environmental aspects that are chosen for study are selected based upon previous research in the field, reflecting a historical perspective developed and maintained by those who have traditionally held power. Incorporating the practice of archiving decision making in research and publication would make methods and results explicit (as opposed to the current implicit nature). This, in turn, would better inform future work and produce more rigorous and replicable science.

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## 6. Conclusion

The world is not an objective space; power and hegemonic structures pervade the lives of the people we study and affect the constructs and phenomena that we try to understand. By taking a critical worldview that attends to marginality and power, we remove the veil of a utopia wherein patterns hold true for all people in all spaces. As psychology continues to assert itself as a rigorous and valid science, we must not lose track of our unique opportunity to understand how embedded systems of power affect our research. With these recommendations from qualitative practice, we encourage psychologists to align training in quantitative psychology with a critical epistemological stance. Even more, these recommendations push the field of psychology towards a more rigorous scientific practice that is also relevant to the sociopolitical realities of the communities with whom we engage in research.

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