

Mixed Methods in Human Rights

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1. Introduction

The last few decades have witnessed an explosion of interest in multimethod research. While the seminal paper on mixed methods was published in 1959,¹ fields of practice only emerged during the 1980s. By that time, there was both a recognition of the benefits of interdisciplinarity² and a weariness with the 'paradigm wars' between quantitative and qualitative 'purists'.³ The result is that numerous publications now identify as mixed methods, especially in the social sciences⁴ but also in the natural sciences, humanities, and law.⁵ Moreover, there is a well-organised *transdisciplinary* movement (with dedicated journals, handbooks, and conferences)⁶ and distinct *intradisciplinary* movements (with established frameworks for their domains).⁷

Human rights research is no exception to this development. It has embraced gradually the pluralistic turn in methods. As we can see in Table 1, the annual number of publications in Google Scholar in English that mention 'human rights' together with the phrase 'multimethod', 'mixed method', or 'interdisciplinary', has grown dramatically.⁸ Indeed, human rights constitutes arguably a natural, or less non-resistant, field for methodological heterogeneity. It is neither delimited by a single discipline nor is it arguably a discipline.⁹ This is because human

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¹ Campbell and Fiske proposed, in psychology the measurement of multiple traits from multiple sources to improve the validity of personality tests. Donald T Campbell and Donald W Fiske, 'Convergent and discriminant validation by the multitrait-multimethod matrix' (1959) 56 (2) *Psychological bulletin* 81-105.

² John Braithwaite, 'In Praise of Tents: Regulatory Studies and Transformative Social Science' (2014) 10 *Annual Review of Law and Social Science* 1-17; Moti Nissani, 'Ten Cheers for Interdisciplinarity: The Case for Interdisciplinary Knowledge and Research' (1997) 34 (2) *The Social Science Journal* 201-16; G. Grant and D. Reisman, *Perpetual Dream* (Chicago University Press 1978).

³ R. Burke Johnson and Omwuegbuzie, 'Mixed Methods Research: A Research Paradigm Whose Time has Come' (2004) 33 (7) *Educational Researcher* 14-26, 14.

⁴ Mario Small, 'How to conduct a mixed methods study: Recent trends in a rapidly growing literature' (2011) 37 *Annual review of sociology* 57-86, 58.

⁵ Eva Kinnebrew and others, 'Approaches to interdisciplinary mixed methods research in land-change science and environmental management' (2021) 35 (1) *Conservation Biology* 130-41; Peter Wignell and others, 'A mixed methods empirical examination of changes in emphasis and style in the extremist magazines Dabiq and Rumiya' (2017) 11 (2) *Perspectives on terrorism* 2-20; Claire Angelique RI Nolasco, Michael S Vaughn and Rolando V Del Carmen, 'Toward a new methodology for legal research in criminal justice' (2010) 21 (1) *Journal of Criminal Justice Education* 1-23.

⁶ *Ibid.*

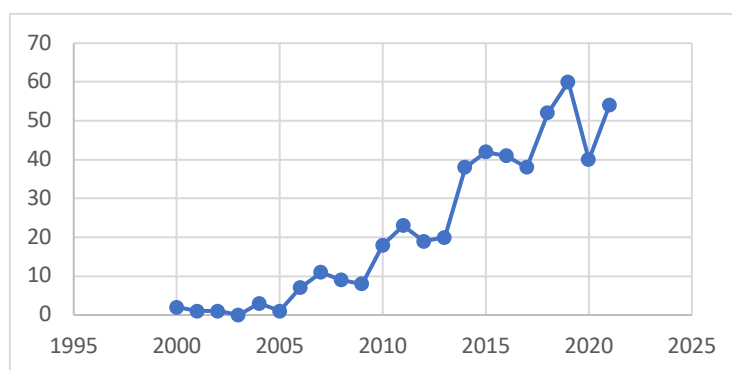
⁷ For example, in the field of demography, see William G Axinn and Lisa D Pearce, *Mixed method data collection strategies* (Cambridge University Press 2006).

⁸ This increase is also significantly higher than the general rise in the number of publications that mention human rights. For example, the average annual number of publications that mention 'human rights' and "research" increases from 50040 (2000-2005) to 88690 (2006-2010) and then 127800 (2011-2015), subsequently falling to 124900 (2016-2020).

⁹ Human rights might formally one definition of a discipline: a 'self-contained and isolated domain of human experience which possess its own community of experts', Nissani, 'Ten Cheers for Interdisciplinarity: The Case for Interdisciplinary Knowledge and Research' 203. This definition is generous though with its weak substantive requirement of internal logic, with the only clear requirement of an identifiably body of adherents. Such a definition

rights can be understood as both a *research subject* (internally determined) and *research object* (externally observed),¹⁰ and it attracts researchers from multiple traditions.

Figure 1. Annual Multimethod Publications in Human Rights
– Google Scholar (2000-2021)



However, it remains questionable as to how far this turn to mixed methods has penetrated the core of the human rights research community. The number of multimethod research publications pales in comparison to their mono-methodological counterparts.¹¹ The singular use of methods thrives and survives; and mixed methods remains a minoritarian taste.¹²

Some of the reasons for this lack of progress are understandable. A particular research question may require only one method or an individual researcher might be justifiably uncertain over their methodological competence. Other reasons are more suspect. They are grounded in internalized notions of disciplinary identity and methodological hostility. In other words, in fear and distrust rather than utility and humility. These motivations are evident in the ongoing paradigm wars in human rights research, which are especially heated over the choice between legal and empirical methods¹³ and critical and historical methods.¹⁴ Indeed, in a leading law journal, scholars recently asked whether empirical research is simply ‘all smoke and mirrors’.¹⁵ Thus,

does one to paper over claims that certain fields (such law or anthropology) might not qualify as disciplines since they lack a strong core (in terms of methodological diversity or ability to resist incursions from other disciplines). See David A Westbrook, ‘Creative Engagements Indeed! Open" Disciplines," the Allure of Others, and Intellectual Fertility’ (2014) 3 (2) *Journal of Business Anthropology* 170-9. It also welcomes those disciplines whose agenda is strongly coloured by professional training (such as law, social work, theology, and medicine). However, given that human rights is both a subject and object of analysis in many recognized disciplines complicates attempts to even identify a community of experts.

¹⁰ On the latter, see Bård A Andreassen, ‘Introductory essay: the politics of international human rights law’, *Research Handbook on the Politics of Human Rights Law* (Edward Elgar Publishing 2023) 1-27.

¹¹ See absolute numbers in the figures in the footnotes above.

¹² Indeed, it is a state of affairs found in adjoining interdisciplinary research fields. For example, Ran Hirschl, laments that: ‘One of the perplexing oddities of contemporary constitutional studies continues to be the disciplinary divide and consequent lack of communication between legal scholarship on constitutional law – arguably the most overtly political branch of law, public or private – and social science scholarship on constitutional history, constitutional development, and constitutional politics’. Ran Hirschl, ‘Methodology and research design’ in David Law (ed), *Constitutionalism in Context* (Cambridge University Press 2022) 41-58, 55.

¹³ See, e.g., Galf-Peter Calliess, ‘Judicial Independence and Impartiality in International Courts: A Comment on Posner’s Institutional Theory of the ICJ’s Decline’ in Stefan Voigt, Max Albert and Dieter Schmidtchen (eds), *International Conflict Resolution* (Mohr Siebeck 2006) 143-54.

¹⁴ See discussion in Afroditi Giovanopoulou, ‘Who Owns the Critical Vision in International Legal History? Reflections on Anne Orford’s International Law and the Politics of History’ (2021) 36 *Temp Int’l & Comp LJ* 19.

¹⁵ Niels Petersen and Konstantin Chatziathanasiou, ‘Empirical research in comparative constitutional law: The cool kid on the block or all smoke and mirrors?’ (2021) 19 (5) *International Journal of Constitutional Law* 1810-34. The article critiqued Adam Chilton and Mila Versteeg, *How constitutional rights matter* (Oxford University Press 2020).

methodological silos continue to dominate in human rights scholarship. And the result is an impoverishment of the field. If researchers simply lean into their (sub)disciplinary traditions, methodological choice becomes a function of training rather than the exigencies of the research question or the potential within a dataset or set of ideas.

With this background, there is an ongoing need to reflect on how human rights research might best incorporate mixed methods. This chapter asks four questions: What are mixed methods? When should they be chosen? How can they be applied? And what are the key challenges? In doing so, I provide examples from human rights and related fields, and point to some potential future uses.

The chapter proceeds as follows. Section 2 defines what we mean by mixed methods, including within the field of human rights. Section 3 analyses two major reasons for choosing mixed methods: open research questions and the need to confirm or compensate for evidential ambiguity. Section 4 discusses research design, with a focus on the spaces for mixed methods (information gathering and analysis) and different forms (sequential, concurrent, and cross-over). Section 5 discusses the key challenges to the use of mixed methods, with a focus on commensurability of findings and researcher competence. The chapter concludes by asking whether and how the field of human rights could focus on the optimal combination of methods.

2. What is mixed methods?

What do we mean by mixed methods? Under what circumstances does a combination of methods count as ‘mixed’? In my view, the definition should be both strict and flexible.

On one hand, and from a strict perspective, we can stipulate that multiple methods must be integrated into a *single research design*. Approaches that do not involve an active combination of methods should be excluded. This would include mere contextualism, in which the previous use of another method is a departure point or source material for new work.¹⁶ The researcher maintains a unidirectional and minimalist relationship with other methods: i.e., there is no mixing. A strict perspective might exclude some (or many) programmatic approaches, such as the use of multiple methods in an edited collection, scholarly association, research project, or broad research agenda. Here, there is an overall multimethodism, but to attain the mantle of ‘mixed’ methods there must be some integration, an active mixture of methods through design and implementation. This would require at a minimum a summary-like synthesis of the methodological diverse data gathering, analysis, or findings.¹⁷

On the other hand, we can be more flexible as to the range of methods. A *methodological agnosticism* would accept open the mixing of *any* relevant method. In the field of human rights, this would include traditional doctrinal approaches, legal theory techniques, empirical methods from the social and natural sciences, and textual analysis and archival methods from the

Villegas’ concern that the legal fraternity regard non-legal approaches with ‘indifference, even contempt’ retains some legitimacy. Mauricio Garcia Villegas, *Les pouvoirs du droit: analyse comparée d’études sociopolitiques du droit* (LGDJ 2015), quoted in Alexandra Huneus, ‘Human rights between jurisprudence and social science’ (2015) 28 (2) *Leiden Journal of International Law* 255-66, 259.

¹⁶ Thus, the social scientist borrows for a hypothesis; the philosophers appropriates for a puzzle; the anthropologist reaches for a statistic; or the lawyer steals a concept or regression result. The method remains singular.

¹⁷ Malcolm Langford, ‘Interdisciplinarity and multimethod research’ in Bård Andreassen, Hans-Otto Sano and Siobhán McInerney-Lankford (eds), *Research Methods in Human Rights* (Edward Elgar Publishing 2017) 161-91. A programmatic umbrella may easily permit mono-methodism amongst its participants; and only a synthesis of research results might involve any methodological chemistry. A programmatic approach may encourage the robust use of different methods but it does not necessarily result in a singular research design with multiple methods, precisely in the same way that *multi*-disciplinarity does not mean *inter*-disciplinarity.

humanities. Thus, if methods are mixed in collecting information or conducting analysis, it should count.

To be sure, this approach is a clear break from the *early* transdisciplinary mixed methods movement. It had grown out of an attempt to transcend the ‘paradigm wars’, and it was regularly assumed that the methods to be mixed were respectively quantitative and qualitative.¹⁸ See Table 1 for a brief description/glossary of these methods.

Table 1: Glossary of Selected Quantitative & Qualitative Methods¹⁹

Method	Description
<i>Quantitative</i>	
Coding	Creating a numerical dataset by ‘transforming collected information or observations to a set of meaningful, cohesive categories’. ²⁰
Survey (numerical)	Creating a numerical dataset by asking questions to a predefined group of people.
Descriptive statistics	Summarizing the basic features of numerical data, often through tables and basic graphs.
Regression analysis	Estimating with statistical methods the relationship between two or more variables, often between a dependent variable (an ‘outcome’) and independent variables.
Experimental methods	Investigating the cause-and-effect relationship between variables by manipulating the independent variable according to a hypothesis.
Network analysis	Studying the relationships (ties) between entities (nodes) in a network (see also Table 2).
<i>Qualitative</i>	
Fieldwork	Observing or interacting with people in a natural environment, which includes the phenomena of research interest.
Interviews	Obtaining information through a series of questions and answers, in which the questions might be closed/open planned or
Survey (text)	Gathering information by asking questions to a predefined group of people
Process tracing	Providing theoretical explanations of historical events by examining potential causes over time within the case.
Case study	A detailed study of a phenomenon within its natural setting.
Qualitative comparative analysis (QCA)	Examine the relationship of conditions to outcome for a small (usually quantitative) dataset using the logic of necessary and sufficient conditions.

¹⁸ Johnson and Omwuegbuzie, ‘Mixed Methods Research: A Research Paradigm Whose Time has Come’ 14.

¹⁹ For further reading on each of these methods, see the entries on qualitative and quantitative methods in this handbook; as well as Joanna Moriarty, ‘Qualitative methods overview’ (2011) ; Shoshanna Sofaer, ‘Qualitative methods: what are they and why use them?’ (1999) 34 (5 Pt 2) Health services research 1101; Richard Berk, ‘What you can and can’t properly do with regression’ (2010) 26 Journal of Quantitative Criminology 481-7; Armin Falk and James J Heckman, ‘Lab experiments are a major source of knowledge in the social sciences’ (2009) 326 (5952) science 535-8; Stanley Wasserman and Katherine Faust, ‘Social network analysis: Methods and applications’ (1994) ; John Gerring, ‘Mere description’ (2012) 42 (4) British Journal of Political Science 721-46; David Collier, ‘Understanding process tracing’ (2011) 44 (4) PS: political science & politics 823-30; Nicolas Legewie, *An introduction to applied data analysis with qualitative comparative analysis* (2013).

²⁰ Ye Sun, ‘Coding of Data’ in Mike Allen (ed), *The SAGE Encyclopedia of Communication Research Methods* (SAGE publications 2017) <https://doi.org/10.4135/9781483381411>

This transdisciplinary movement was built on the acknowledgement of the strengths of both types of methods. On one hand, quantitative methods require the systematic selection of research objects and data, can establish broad patterns and enable probabilistic generalisation, and may avoid bias in interpretation through more transparent techniques.²¹ On the other hand, qualitative methods have a comparative advantage in capturing socially complex phenomena, identifying new and multiple causal paths,²² and explaining individual and non-conformist cases. Combining these traditions offered, epistemologically, the promise of garnering the best of both.

Nonetheless, the transdisciplinary mixed methods movement recognised increasingly that this binary division was problematic. Some methods are difficult to classify strictly as quantitative or qualitative. This includes content analysis,²³ network analysis,²⁴ large-N qualitative methods,²⁵ and qualitative comparative analysis (QCA).²⁶ For example, network analysis is primarily quantitative (e.g., seeking to measure the number, depth, and weight of ties between nodes), but also has some distinctive qualitative features (e.g., treating non-systematic factors not as errors but as spaces which with their own explanatory value: e.g., the periphery around a core). Even more difficult to categorise is QCA. Beginning with a numerical dataset, one then turns to a small-N and deterministic qualitative logic (necessary and sufficient conditions) to explore within- and cross-case forms of causal inference.

The result is that many of the movement's leading scholars now speak of a continuum of approaches, claiming:

Mixed methodologists have repeatedly placed mixed methods on a continuum that includes qualitative, quantitative, and mixed approaches rather than using the dichotomy of qualitative or quantitative.²⁷

Yet, even this idea of a spectrum is insufficient and unsuitable. This is for two reasons.

First, answering research questions in fields such as law and the humanities may require methods that cannot be easily placed on a qualitative-quantitative spectrum: see Table 2 for a list. For instance, doctrinal hermeneutics represent a species of method that cannot be reduced to the label of qualitative.²⁸ Ontologically, it concerns hermeneutics or interpretivism, with a focus on the 'revelation' of meaning rather than the 'observation' of behaviour. Moreover, the degree of aggregation in data collection – one of the underlying axes in the qualitative-quantitative divide

²¹ Malcolm Langford and Sakiko Fukuda-Parr, 'The Turn to Metrics' (2012) 30 (3) *Nordic Journal of Human Rights* 222-38; AnnJanette Rosga and Meg Satterthwaite, 'The Trust in Indicators: Measuring Human Rights' (2009) 27 (2) *Berkeley Journal of International Law* 253-315; Todd Landman, 'Measuring Human Rights: Principles, Practice and Policy' (2004) 26 (4) *Human Rights Quarterly* 906-31.

²² E.g., necessary and sufficient conditions.

²³ Jane Forman and Laura Damschroder, 'Qualitative content analysis' in Liva Jacoby and Laura Siminoff (eds), *Empirical methods for bioethics: A primer*, vol 11 (Emerald Group Publishing Limited 2007) 39-62.

²⁴ Wasserman and Faust, 'Social network analysis: Methods and applications'.

²⁵ Thomas M. Keck, 'Medium- and Large-N Qualitative Methods in Constitutional Law' in David Law and Malcolm Langford (eds), *Research Methods in Constitutional Law: A Handbook* (Edward Elgar 2024).

²⁶ Legewie, *An introduction to applied data analysis with qualitative comparative analysis*.

²⁷ Abbas Tashakkori and John W Creswell, 'Exploring the nature of research questions in mixed methods research' (2007) 1 (3) *Journal of Mixed Methods Research* 207-11, 211.

²⁸ Likewise, there is the unresolved question of whether we can include philosophical reasoning and formal modelling in mixed methods. For example, how do the results of a deliberative exercise in drafting a bill of rights with similar parameters differ according to whether it is the result of a Rawlsian thought experiment or a field experiment? Some might argue that philosophical methods are often meta-methods. I am less sure given their sophistication and the implicit and explicit use of mathematics in philosophy. In any case, for an empirical sub-question in a philosophical inquiry, such mixed methods would be of relevance: James Nickel, *Making Sense of Human Rights* (Blackwell Publishing 2007).

– is irrelevant. The number of observations for interpretation (e.g., legal provisions, judgments, other legal sources) usually has little bearing on doctrinal epistemology.²⁹

Likewise, in applied human rights research, the quant-qual continuum is somewhat obsolete, especially in data collection. In seeking to establish the character of a human rights violation – an ‘event’ or ‘state of affairs’ – eclecticism is often necessary, whether due to the lack of sources or the need to prove a serious violation. Sources of information may include historical source criticism, administrative data, interviews, and descriptive statistics.

Second, the idea of a continuum predates largely the rise of computational natural language processing methods. Through methods such as text analysis, machine learning, and network analysis, the implicit numerical-textual division in the spectrum is partly dissolved. Computational data collection and analysis incorporate both quantitative and qualitative logics and invite new methodological approaches. In the field of human rights, data science has been used to predict the occurrence of enforced disappearances and extra-judicial killings,³⁰ analyse changes in human rights standards³¹ and constitutional language,³² or understand the causes of delays in trials.³³ While computational approaches rarely fully replace qualitative methods, they provide, at least, a new qualitative dimension to traditional statistical analysis.

Table 2: Glossary of Selected Hermeneutic & Computational Methods³⁴

Hermeneutic	
Legal doctrinal method	The synthesis of various rules, principles, norms, and values to describe, make coherent, explain or justify a segment of the law as part of a larger system of law. ³⁵
Historical source criticism	Examining critically putative historical sources to understand its contextual relevance or meaning and determine its value as evidence for historical events and developments.
Critical text analysis	A careful examination and evaluation of a text or discourse, often from a theoretical perspective to see underlying patterns.

²⁹ But consider the scenario when a lawyer reads, textually analyses and synthesises 500-plus cases on the right to a remedy. See Michael Reiertsen, *Effective Domestic Remedies and the European Court of Human Rights: Applications of the European Convention on Human Rights Article 13* (Cambridge University Press 2022). Is that small-N, medium-N or large N? As to the presentation of material it is clearly small-N (one proceeds case-by-case and focus on some more than others), but in terms of initial data collection it is large-N.

³⁰ Christine Grillo, ‘Building Capacity in Colombia: Truth And Reconciliation’, *Human Rights Data Analysis Group*, 28 October 2021, <https://hrdag.org/2021/10/28/colombia-truth-reconciliation/> (accessed 24 October 2022).

³¹ Kevin T Greene, Baekkwon Park and Michael Colaresi, ‘Machine learning human rights and wrongs: How the successes and failures of supervised learning algorithms can inform the debate about information effects’ (2019) 27 (2) *Political Analysis* 223-30.

³² David S Law, ‘The global language of human rights: a computational linguistic analysis’ (2018) 12 (1) *The Law & Ethics of Human Rights* 111-50.

³³ Henrik Bentsen, Jon Kåre Skiple, Malcolm Langford, Marte Deichman-Sørensen and Gunnar Grendstad, *Predicting Case Processing Time: Machine Learning and Norwegian Courts*, APSA, 2022.

³⁴ For an introduction to these methods, see Terry Hutchinson and Nigel Duncan, ‘Defining and describing what we do: doctrinal legal research’ (2012) 17 (1) *Deakin Law Review* 83-119; Tomislav Dulić, ‘Peace Research and Source Criticism: Using historical methodology to improve information gathering and analysis’, *Understanding peace research* (Routledge 2011) 35-46; Thomas N Huckin, ‘Critical discourse analysis’ (1997) *Functional approaches to written text: Classroom applications* 87-92; Ryan Whalen, ‘The emergence of computational legal studies: an introduction’, *Computational Legal Studies* (Edward Elgar Publishing 2020) 1-8. David Lazer and others, ‘Social science. Computational social science’ (2009) 323 (5915) *Science* (New York, NY) 721-3; Shawn Graham and others, *Exploring big historical data: the historian’s microscope* (World Scientific 2016).

³⁵ The definition partly draws on Hutchinson and Duncan, ‘Defining and describing what we do: doctrinal legal research’ 83.

Computational	
Quantitative text analysis	Discovery of new information or patterns by automatically extracting and/or analysing a corpus of written sources.
Network analysis	Studying the relationships (ties) between entities (nodes) in a network, and increasingly with data science software.
Machine learning	A branch of statistics and form of artificial intelligence that trains and tests algorithms on large datasets to improve accuracy in predicting an outcome.
Agent modelling	Simulating the actions and interactions of individuals or actors to understand the behaviour of a system.

Thus, a flexible approach is needed to the definition of mixed methods. The richness of methodology and demands of different fields calls for eclecticism, with a focus on the process of mixing rather than the type of methods. In this vein, a helpful definition is given by Small, who simply focuses on the mixing at the collection and analysis stages:

I define as *mixed data-collection* studies those based on at least two kinds of data (such as field notes and administrative records) or two means of collecting them (such as interviewing and controlled experimentation). I define as *mixed data-analysis* studies those that, regardless of the number of data sources, either employ more than one analytical technique or cross techniques and types of data (such as using regression to analyze interview transcripts).³⁶

To be sure, such eclecticism has its definitional limits and challenges. It presumes that different methods can always be concretely identified and distinguished – but sometimes there are no such bright lines. This is because methodological categories are constructions in themselves as much as the idea of a discipline.³⁷ For example, in philosophy, Schaffer argues that the rise of ‘political’ approaches to human rights justification are ‘mixed methods’ – as they draw on both human rights practice and first moral principles.³⁸ In comparative constitutional law, Dixon affirms Mark Tushnet’s use of ‘mixed methods’ by ‘using and citing a variety of different methods of comparison’.³⁹ These notions of mixed methods may be unfamiliar for those in the hard empirical sciences, but resonate in their respective contexts. For the most part, this terminology should be embraced, but not simply out of pragmatism. Instead, by identifying an approach as mixed methods, it allows reflection on the optimal approach to mixing and identification of the common challenges of commensurability and competence.

In summary, mixed methods can be defined as the conscious combination of two distinct methods, regardless of their nature and form and regardless of the relevant phase of the research. Thus, mixed methods might be a blend of qualitative and quantitative methods, but it might equally be a combination of legal and quantitative methods or qualitative and machine learning methods. The point is methodological pluralism.

³⁶ Small, ‘How to conduct a mixed methods study’, 60. He also justifies this approach on the basis that it ‘helps avoid some pitfalls of the standard quantitative-qualitative distinction, which is too crude’. Ibid. In his view, this distinction should be used only as ‘shorthand’ for different ‘kinds of data, or collection, or analysis’ rather than an overall methodological approach.

³⁷ Disciplines can be defined as a ‘self-contained and isolated domain of human experience which possess its own community of experts’: Nissani, ‘Ten Cheers for Interdisciplinarity: The Case for Interdisciplinary Knowledge and Research’ 203.

³⁸ Johan Karlsson Schaffer, ‘The point of the practice of human rights: International concern or domestic empowerment’ in Johan Karlsson Schaffer and Reidar Maliks (eds), *Moral and political conceptions of human rights: Implications for theory and practice* (Cambridge University Press 2017) 33-57.

³⁹ Ros Dixon, ‘How to Compare Constitutionally: An Essay in Honour of Mark Tushnet’, *UNSW Law Research Paper* (2020), 21.

3. When are Mixed Methods Needed?

The next logical question is under what circumstances is such pluralism needed. When should a researcher employ mixed methods? The simple answer would be whenever multiple perspectives or ‘dragonfly eyes’⁴⁰ are needed. However, this should be more than a felt need. Otherwise, there is a risk that methodological pluralism become a goal rather than a means, constituting yet another academic fashion. Thus, in this section, I focus on two reasons that may motivate its use in specific contexts, namely the presence of open research questions and evidential ambiguity.

3.1 Open research questions

Some research questions are so *closed* such that only one method need be meaningfully adopted. For example, consider the following question: Is there a right in the constitution of X for asylum seekers claiming persecution on the grounds of sexual orientation.⁴¹ Furthermore, assume that in the state of X that there is little legal jurisprudence to analyse, there is a strong positivist tradition, and the jurisdiction does not permit or encourage comparative analysis. In this case, doctrinal methods would be arguably sufficient. The form of the question is doctrinal (solidly within Aristotle’s revelatory category of epistemology, i.e., the meaning of text); and the circumstances limit the use of more empirical and critical approaches to identifying and analysing other legal sources. Such closed questions are relatively common. This is because they emerge from the core of a discipline, sub-discipline, or research tradition, which narrows the possibilities for methodological pluralism from the get-go.

However, research questions that are more *open* may trigger the need to consider mixed methods. Consider a slight variation of the above question: do asylum seekers claiming persecution on the grounds of sexual orientation have a constitutional right to asylum in the state of X? In this case, a plausible answer cannot be obtained with the singular use of doctrinal, quantitative, or qualitative methods. Indeed, the form of the question gives this way. The use of the verb word ‘have’ in this question, rather than ‘is’ as in the previous question, opens up immediately for empirical methods. Moreover, the use of ‘constitutional’ in an ‘adjectival’ rather than a ‘noun’ form suggests that the relevant legal context and sources may go beyond a constitution.

Turning to the palette of relevant methods for this open question, a doctrinal approach would foreground legally the grounds for asylum and permissible considerations. However, in trying to understand what rights asylum seekers actually ‘have’, this analysis could, or should, be supported by quantitative and qualitative empirical methods to understand how actors will treat these legal rights. Indeed, we know from quantitative studies that the likelihood of being granted asylum is often dependent on the political ideology of an adjudicator, particularly their express or imputed views on migration and foreign policy.⁴² Others show the importance of judicial

⁴⁰ Anthea Roberts and Nicolas Lamp, ‘Six Faces of Globalization’, *Six Faces of Globalization* (Harvard University Press 2021)

⁴¹ The importance of specifying research questions varies, of course, across disciplines. Disciplines that are primarily or exclusively in the ‘narrative’ tradition (law, anthropology, history, literature) rather than the ‘analytical’ tradition tend to regard question specification as of slightly less importance. This might be accounted by the prominence of descriptive analysis or the emphasis on style, text and exploration. One needs to be careful of stylistic or methodological imperialism! There are different traditions of knowledge production. However, in the field of law, this de-emphasis is striking. While carefully structured questions are the driving force behind judging and legal advocacy/practice (L. H. Carter and T. F. Burke, *Reason in Law* (8th edn. Longman 2010)), one often strains to find a precisely specified research question in reading legal scholarship. One is sometimes left at the end of an article trying to reconstruct what the author was setting out to achieve.

⁴² Andy J Rottman, Christopher J Fariss and Steven C Poe, ‘The Path to Asylum in the US and the Determinants for Who Gets in and Why’ (2009) 43 (1) *International Migration Review* 3-34; Dominik Hangartner, Benjamin E Lauderdale and Judith Spirig, *Inferring individual preferences from group decisions: judicial preference variation and aggregation in asylum appeals*, (2019), <https://www.zora.uzh.ch/id/eprint/207365/1/ZORA207365.pdf>;

background,⁴³ interaction effects between panel members⁴⁴, considerations of judicial reputation⁴⁵ and perhaps even a judge's blood sugar levels!⁴⁶

Yet, even this quantitative perspective is not sufficient. Qualitative methods help understand the prevailing culture and history within an asylum tribunal or court,⁴⁷ the way in which lawyers and judges frame an asylum seeker's claim,⁴⁸ and the mediating influence of tribunal appointments and structure of decision-making (e.g. sequential and concurrent decision-making in panels).⁴⁹ Such a focus on process and causal mechanisms would especially help in specifying the conditions under which individuals have a right to asylum.

Thus, taken in isolation, a single method on its own cannot answer this open research question on asylum. Even though the question can be framed sensibly within law, it is arguable that it cannot be plausibly and fully answered with the disciplinary tools of law (or for that matter political science or sociology). Its traits of interdisciplinarity are too strong. A doctrinal approach cannot capture the broader probabilistic factors called for; a quantitative approach cannot capture the nuances of the legal and cultural conditions; and a qualitative approach cannot tell us anything about the magnitude of different factors, including law and ideology. Thus, the greater the openness in a research question, the greater the need to consider mixed methods.

With that being said, it is important to be clear that research questions themselves are a construction, and not a revelation. Subtle changes to them can make them more open or closed. It is thus important to be transparent about the creative, dialectical, and evolutionary process behind any research question. Which of the five typical grounds for a research question is driving its development.⁵⁰ Is it based on some of the potentially demanding grounds of originality, curiosity, relevance, and ethics? I.e., the research design is question-driven. Or is it simply based on feasibility – a pragmatic accommodation of a researcher's preferred method? I.e., the research design is method-driven. For example, a researcher may be interested in knowing what are the impacts of the legal recognition of a human right. However, due to their limited empirical competence, they might decide to only examine the effects within the realm of legal sources – such as jurisprudence. This is all very well and good – pragmatism is a virtue. Yet, there is a risk that this limitation is under-communicated (i.e., the research is framed effectively as general not legal impact) and one misses the opportunity of answering the question one was really interested in.

Malcolm Langford and Mikael Madsen, 'France Criminalises Research on Judges', *Verfassungsblog*, 22 June 2019, <https://verfassungsblog.de>

⁴³ Eric Posner and Miguel de Figueiredo, 'Is the International Court of Justice Biased?' (2005) *Legal Studies* 34 599.

⁴⁴ Jonathan P Kastellec, 'Racial diversity and judicial influence on appellate courts' (2013) 57 (1) *American Journal of Political Science* 167-83.

⁴⁵ Lee Epstein and Jack Knight, 'Reconsidering Judicial Preferences' (2013) 16 *Annual Review of Political Science* 11-31.

⁴⁶ See Shai Danziger, Jonathan Levav and Liora Avnaim-Pesso, 'Extraneous factors in judicial decisions' (2011) 108 (17) *Proceedings of the National Academy of Sciences* 6889-92.

⁴⁷ Keith E. Whittington, 'Once More Unto the Breach: Post-Behavioralist Approaches to Judicial Politics' (2000) 25 (2) *Law and Social Inquiry* 601-34.

⁴⁸ Anthony Good, *Anthropology and expertise in the asylum courts* (Routledge 2007).

⁴⁹ Hangartner, Lauderdale and Spirig, *Inferring individual preferences from group decisions: judicial preference variation and aggregation in asylum appeals*.

⁵⁰ See e.g., Mary P Tully, 'Articulating questions, generating hypotheses, and choosing study designs' (2014) 67 (1) *The Canadian journal of hospital pharmacy* 31, 32.

Indeed, many of the burning and important questions in human rights were and are rarely solved within a single discipline and method.⁵¹ Disciplines in particular tend to act as an incubus for both intellectual developments *and* methodological toolboxes that soon become relevant elsewhere. Whether it is parsing the contested meanings of a specific right, determining the impact of the international rights regime, measuring the general realization of human rights, assessing the legitimacy of human rights policies, proving the existence of discrimination or engaging with the challenges of biotechnology, eclecticism is crucial. Interdisciplinarity – and often by extension mixed methods or at least multimethodism – is essential for the lifeblood of human rights research. In this sense, the editor’s somewhat narrow vision of the field for human rights research – as expressed in the introduction – is worrying:⁵² It blocks off potential fresh transfusions of knowledge and method.

Put simply, important human rights research questions do not correlate neatly with disciplinary and methodological boundaries. Indeed, if we look back at the last few decades, we can see that the discursive turn has given attention to language and its underlying structural power;⁵³ new institutional theories from economics, sociology and history help us make sense of relevant political and legal institutions;⁵⁴ critical gender and race theory has deepened theories of discrimination;⁵⁵ the affective turn has allowed the study of emotion in human rights;⁵⁶ and

⁵¹ A notable example is the New Legal Realism movement which highlights how legal scholars and social scientists are dependent on each other: ‘[W]e cannot leave the empirical study of law to social scientists. Empirical studies informed of the law’s content, and imbued with a sense of law’s partial autonomy, can bring into view real-world legal dynamics social scientists might otherwise miss’. Huneeus, ‘Human rights between jurisprudence and social science’ 256.

⁵² They argue that human rights research accepts, *a priori*, the ‘internationally recognized human rights norms, institutions and procedures as the principal reference points’. Such a focus may reflect or usefully orient this book’s contents. However, it is not desirable from an interdisciplinary perspective. This is for four reasons. First, the editors’ approach represents a methodological and normative choice in itself, as it excludes competing definitions of what constitutes human rights. Second, it rejects bottom-up, domestic and subaltern conceptions of human rights which are the object of study in various disciplines, particularly critical theory, historical and political sociology, geography and anthropology, archival history and comparative law. Third, it affirms implicitly the highly problematic ‘big-bang’ definition of human rights by Samuel Moyn, *The Last Utopia: Human Rights in History* (Belknap Press of Harvard University Press 2010). In effect, it whitewashes much of human rights thinking and practice out of history. Finally, this narrow definition glosses over the symbiotic and dynamic development of international human rights law and its relationship with domestic movements and legal orders. For a longer critique, see Langford, ‘Interdisciplinarity and multimethod research’.

⁵³ Amanuel I Tewolde, ‘How Eritreans in South Africa talk about their refugee experiences: A discursive analysis’ (2017) 48 (3) *South African Review of Sociology* 3-20; Diana Camps, *An interdisciplinary research approach: A legal and discursive analysis of social rights policy in the UK* (2022), https://dspace.stir.ac.uk/retrieve/4e39d74a-9e76-4bd8-bfb3-8d1404dbea82/09_Interdisciplinary-Approach_Briefing-18MAY22.pdf (accessed 24 October 2022).

⁵⁴ Henry Farrell, ‘The shared challenges of institutional theories: Rational choice, historical institutionalism, and sociological institutionalism’ in Johannes Glückler, Roy Suddaby and Regina Lenz. (eds), *Knowledge and institutions* (Springer 2018) 23-44.

⁵⁵ Caroline Bettinger-Lopez and others, ‘Redefining human rights lawyering through the lens of critical theory: Lessons for pedagogy and practice’ (2010) 18 *Geo J on Poverty L & Pol’y* 337; Matthew Waites, ‘Critique of ‘sexual orientation’ and ‘gender identity’ in human rights discourse: Global queer politics beyond the Yogyakarta Principles’ (2009) 15 (1) *Contemporary Politics* 137-56; Alison Weir, ‘Feminist critical theory’ in Kim Hall and Åsta (eds), *The Oxford handbook of feminist philosophy* (Oxford University Press 2021) 1-14.

⁵⁶ Jack Snyder, ‘Backlash against human rights shaming: emotions in groups’ (2020) 12 (1) *International Theory* 109-32; Michalinos Zembylas and Vivienne Bozalek, ‘A critical engagement with the social and political consequences of human rights: The contribution of the affective turn and posthumanism’ (2014) 46 (4) *Acta Academica* 29-47; F. Fernando J Bosco, ‘Emotions that build networks: Geographies of human rights movements in Argentina and beyond’ (2007) 98 (5) *Tijdschrift voor economische en sociale geografie* 545-63. See also work in neuroscience: Dominique Church, ‘Neuroscience in the Courtroom: An International Concern’ (2012) 53 (5) *William and Mary Law Review* 1824-54; Owen Jones, Jeffrey Schall and Francis Shen, *Neuroscience and the Law*

developments in political philosophy and sociology have given us new frameworks to negotiate questions of legitimacy and effectiveness surrounding human rights.⁵⁷

With each area disciplinary advance, human rights research has been enriched by advances in methods. Data science has brought computational methods;⁵⁸ psychology has honed the use of experimental methods;⁵⁹ and historians have advanced and promoted archival methods.⁶⁰ If we return to the example of studying the impacts of human rights law, we find a significant body of research using qualitative, quantitative, and comparative methods,⁶¹ which enables a study of the broader material, political, symbolic and even legal effects and a deeper understanding of the necessary underlying conditions for change and transformation.⁶² One can thus only imagine the poverty of human rights research if it were isolated from these broader intellectual and methodological movements.

Bringing this all together, mixed methods are highly useful for answering open research questions. Open research questions do not privilege a particular approach and often demand more than one method. And mixed methods provide ‘different entryways’ for understanding or interpreting a phenomenon.⁶³ At the same time, it is important to be alert to the researcher’s subjective role in determining the openness of research questions. They will often set or shape the premises for whether a question is open or closed. In this dialectical process, openness to interdisciplinarity (ways of asking questions) and diverse methods (how we answer them) may encourage more open questions. The result is that human rights research, generally and within disciplinary traditions, can be less insular, and avoid being too rooted in ‘what is already known’.⁶⁴

(Aspen Publishers 2014); Christopher T Dawes and others, ‘Neural basis of egalitarian behavior’ (2012) 109 (17) *Proceedings of the National Academy of Sciences* 6479-83.

⁵⁷ Allen Buchanen and Robert Keohane, ‘The Legitimacy of Global Governance Institutions’ in Rüdiger Wolfrum and Volker Röben (eds), *Legitimacy in International Law* (Springer 2008) 25-62; César Rodríguez-Garavito, ‘Beyond the Courtroom: The Impact of Judicial Activism on Socioeconomic Rights in Latin America’ (2011) 89 *Texas Law Review* 1669-98.

⁵⁸ Masha Medvedeva, Michel Vols and Martijn Wieling, ‘Using machine learning to predict decisions of the European Court of Human Rights’ (2020) 28 *Artificial Intelligence and Law* 237-66.

⁵⁹ Katerina Linos and Kimberly Twist, ‘The Supreme Court, the media, and public opinion: Comparing experimental and observational methods’ (2016) 45 (2) *The Journal of Legal Studies* 223-54.

⁶⁰ Steven Jensen, *The Making of International Human Rights: The 1960s, Decolonization, and the Reconstruction of Global Values* (Cambridge University Press 2015).

⁶¹ See, e.g., Beth Simmons, *Mobilizing for Human Rights: International Law in Domestic Politics* (Cambridge University Press 2009); Basak Cali and Alica Wyss, *Why Do Democracies Comply with Human Rights Judgments? A Comparative Analysis of the UK, Ireland and Germany*, 2011); César Rodríguez-Garavito and Diana Rodríguez-Franco, *Courts and Social Change in the Global South: The Impact of Judicial Activism on Constitutional Innovation and Socio-Economic Rights* (Cambridge University Press 2015); Vincent Vecera, ‘The Supreme Court and the Social Conception of Abortion’ (2014) 48 (2) *Law & Society Review* 345-75; Daniel Brinks and Varun Gauri, ‘The Law’s Majestic Equality? The Distributive Impact of Judicializing Social and Economic Rights’ (2014) 12 (2) *Perspectives on Politics* 375-93D. Brinks and V. Gauri, ‘The Law’s Majestic Equality? The Distributive Impact of Judicializing Social and Economic Rights’ (2011) 12(2) *Perspectives on Politics* 375-393; Malcolm Langford and others (eds), *Socio-Economic Rights in South Africa: Symbols or Substance?* (Cambridge University Press 2014).

⁶² See Malcolm Langford, ‘The impact of public interest litigation: the case of socio-economic rights’ (2021) 27 (3) *Australian Journal of Human Rights* 505-31; Sandra Botero and Daniel Brinks, ‘A Matter of Politics: The Impact of Courts in Social and Economic Rights Cases’, in Malcolm Langford and Katherine Young (eds.), *Oxford Handbook on Economic and Social Rights* (OUP forthcoming 2023).

⁶³ Kira Tait and Whitney K Taylor, ‘The Possibility of Rights Claims-Making in Court: Looking Back on Twenty-Five Years of Social Rights Constitutionalism in South Africa’ (2022) *Law & Social Inquiry* 1-30, 24

⁶⁴ C.W. Mills, *The Sociological Imagination* (OUP, 1959) 204.

3.2 Evidential Ambiguity

The second reason for considering mixed methods is addressing concerns that arise over the strength of a particular method. This apprehension, or worry about evidential ambiguity, comes in two primary forms and requires two different justifications: confirmation and compensation.

The first concern relates to the reliable, validity, or overall soundness of a method. Additional methods may be required to *confirm* the data collection and/or findings. Returning to our impact example, a researcher may find with quantitative methods that recognition of a human right in a treaty or constitution has a strong influence on policy and practice, yet worry that their coding protocols or regression techniques overstate the magnitude of the connection. Thus, they may turn to qualitative and case-specific methods to test whether there is a plausible causal mechanism.⁶⁵

For this concern, what is important to observe is the underlying epistemological assumption. The researcher assumes that a single method is generally sufficient to give a full answer to a question, but turns to mixed methods when needed in specific cases. Thus, mixed methods are a matter of prudence. Confirmation is needed when one fears that application of a specific method may be flawed.

At the same time, such a need for confirmation might be based on simply curiosity, not just strict verification. For example, consider the question: should issues of constitutional rights be decided by referendum? The question is clearly a normative question: i.e., ‘should’. However, it is possible to construct a full and reasonable research design that is confined to a single discipline and method: a closed question. The political philosopher might examine the moral case; the lawyer might examine the arguments in light of jurisprudence; the political scientist might examine the effects of such referendums; the historian may provide the *longue duree* etc. Each discipline can provide a coherent and verifiable answer within their discipline. But given that it is possible to pursue the question in different disciplines, it might be interesting to see how the respective answers stack up alongside each other – do they confirm or conflict? In doing so, such curiosity can also support more general verification of or doubt over the results, as one parses whether different disciplines produce similar or different answers.

The second concern over evidential ambiguity begins from a different epistemological starting point. Here, a researcher is doubtful over whether a single method is adequate, given that each potential method has its strengths and weaknesses. In this case, mixed methods are employed as a form of *compensation*. For example, the researcher might be worried that quantitative methods cannot capture important aspects of explaining the reasons for why states ratify human rights treaties. Thus, qualitative, archival, or computational methods are needed to explore the processes and reasoning – which may especially assist with the specification of necessary and sufficient conditions.

Importantly though, the compensatory mixing of methods is not just useful for explanation or prediction. It can help mere description. Gerrig notes that there are five archetypes of description – ‘accounts, indicators, associations, syntheses and typologies’ –⁶⁶ and these approaches require largely different methods. As noted earlier, describing factually a potential human rights violation well usually demand a range of methods. Again, the concern rests on a particular epistemological concern. It is that no method is likely to produce sufficient knowledge,

⁶⁵ See, e.g., Simmons, *Mobilizing for Human Rights: International Law in Domestic Politics*.

⁶⁶ Gerrig, ‘Mere description’, at 725.

that ‘any given type of data can produce only a given kind of knowledge’⁶⁷. Thus, additional and compensatory methods of collection or analysis are necessary.

Mixed methods thus help tackle evidential ambiguity, whether to confirm one method or compensate for the generally recognised weaknesses in methods. As we shall see, the respective motivation often affect mixed method research design. If it is confirmation, the methods will most likely be mixed sequentially; if it is compensation, there is a greater chance that mixing will be *concurrent*. And it is to the question of research design that we now turn.

4. How is Mixed Methods Operationalised?

4.1 Data collection versus analysis

As foreshadowed, we can think about the mixing of methods occurring in either of two phases: data collection and analysis.⁶⁸ The idea of ‘data’ is clearly resonant in the social and natural sciences and to some extent the humanities. But we can more broadly think about it as information and even arguments. Research is an iterative process of gathering and analysing. However, there are many variations on these phases.

In *collecting* data, there may be two ‘kinds’ of data gathered – for example the combination of case law and interviews with judges in order to answer a question about judicial behaviour in judging human rights.⁶⁹ Or there may be two ‘means’ of collecting the same kind of data. In our example on judicial behaviour, there may be one data source – e.g., judgments – but they are both coded quantitatively and read deeply.

In the *analytical* phase, the mixing of methods involves the use of different ‘techniques’. Continuing our example of judicial behaviour, this might involve regression analysis on coded judgments⁷⁰ together with discursive analysis of judicial reasoning⁷¹ or judges’ linguistic choices.⁷² There is also a further variation. These are ‘crossover’ techniques where the method employed in the analysis differs significantly from that in the collection phase.⁷³ For example, computational analysis may be used on qualitative data collection, to analyse linguistic patterns in judgments to predict outcomes, show development of legal thinking, or explore the strategic use of citations.⁷⁴ Alternatively, and in reverse, qualitative methods may be used to construct narratives from a detailed statistical dataset or computational text corpus.⁷⁵

Thus, while mixed methods discussions tend to focus on analysis, it is important to remember that it can occur at the data collection stage or between collection and analysis.

⁶⁷ Small, ‘How to conduct a mixed methods study: Recent trends in a rapidly growing literature’ 64.

⁶⁸ Ibid.

⁶⁹ See, e.g., Erin Stiles, *An Islamic court in context: an ethnographic study of judicial reasoning* (Springer 2009).

⁷⁰ Reiertsen, *Effective Domestic Remedies and the European Court of Human Rights: Applications of the European Convention on Human Rights Article 13*. Or the combination of statistics with interviews with judges: Marlene Wind, ‘The Nordics, the EU and the reluctance towards supranational judicial review’ (2010) 48 (4) JCMS: Journal of Common Market Studies 1039-63.

⁷¹ Johanna Niemi-Kiesiläinen, Päivi Honkatukia and Minna Ruuskanen, ‘Legal Texts as Discourses1’, *Exploiting the limits of law* (Routledge 2016) 69-88.

⁷² Ntina Tzouvala, ‘Full protection and security (for racial capitalism)’ (2022) 25 (2) Journal of International Economic Law 224-41.

⁷³ Small, ‘How to conduct a mixed methods study: Recent trends in a rapidly growing literature’ 72.

⁷⁴ See discussion below in section 4.5.

⁷⁵ Burton Singer and others, ‘Linking life histories and mental health: A person-centered strategy’ (1998) 28 (1) Sociological methodology 1-51.

4.2 Research designs for Mixed Methods

Moving beyond the research phases, we turn to the core of research design for mixed methods. Unsurprisingly, there are a range of techniques and many ways to conceptualise them. In this chapter, we will discuss three predominant approaches: sequential, concurrent, and the crossover. These approaches are illustrated in Table 2. They are also subdivided according to (1) their modal form, the order of mixing and (2) the stage at which the methods are integrated and brought into conversation with each other. The framework draws on Creswell and colleagues but has been substantially amended and expanded.⁷⁶

Table 3. Mixed Methods Research Design

Type	Form	Common Order	Integration stage	Typical Examples
Sequential	Explanatory	Quantitative then Qualitative	Interpretation	<i>Regression analysis followed by case studies</i>
	Exploratory	Qualitative then Quantitative	Interpretation	<i>Fieldwork followed by network analysis</i>
	Eclecticism	Flexible Quantitative-Quantitative Qualitative-Qualitative Quantitative-Hermeneutic Hermeneutic-Qual/Quant	Concepts, Data, Analysis	<i>Automated data collection followed by regression or textual analysis Analysis of costs, effectiveness, or acceptability of a legal proposal</i>
Concurrent	Triangulation	Concurrent collection of data	Interpretation or analysis phase	<i>Survey plus focus groups OR Caselaw analysis plus expert survey OR Experiment plus content analysis</i>
	Nested	Concurrent collection of data	Analysis	<i>Survey with closed & open questions Survey with experimental treatments</i>
Crossover	Computational	Computational analysis of text/legal data	Data and/or Analysis	<i>Topic modelling Case prediction Network analysis of legal data</i>
	Quantitative	Quantitative analysis of text/legal data	Analysis	<i>Sequence analysis of text data Regression analysis of small-N data</i>
	Qualitative	Qualitative analysis of quantitative/legal data	Analysis	<i>Narrative analysis of large-N data</i>

4.3 Sequential approaches

At their core, sequential approaches involve the successive use of methods to answer a single research question. The two common or archetypal forms of sequentialism draw on the quantitative-qualitative divide. The researcher begins with one method and adopts a second, often to confirm the findings. However, the use of sequential approaches may also be highly intentional and guided by a need for one method to compensate another.

⁷⁶ J.W. Creswell and others, 'Advanced mixed methods research design', *Handbook of mixed methods in social and behavioural research*, vol Reprinted in the Mixed Method Reader pp. 159-196 (Sage 2003) 209-40. Cross-over is taken from Small, 'How to conduct a mixed methods study', although I categorise somewhat differently.

The first sequential approach is *explanatory-driven*. A researcher might begin with quantitative regression analysis followed by individual case studies in order to test casual findings or underlying assumptions. And the methods are integrated at the stage of interpretation – or potentially during the qualitative analysis. Moreover, data collection and analysis for each method is usually conducted separately.

A good example of this comes from scholarship on the impact of rights recognition. Hafner-Burton had observed the paradox that qualitative and quantitative researchers came to radically divergent conclusions over the effects of human rights treaties.⁷⁷ The former were more positive, and the latter mostly negative.⁷⁸ However, through an explanatory-driven mixed methods approach, Beth Simmons was able to cut partly through this paradox.⁷⁹ Using regression analysis and then country case studies, she provided evidence for a more nuanced perspective and a framework for ongoing research: that human rights treaties work most by affecting domestic politics and that this effect is most significant in transitional middle-income countries.

The reverse approach is *exploratory-driven*. A researcher may begin with qualitative methods and develop subsequently certain hypotheses or parameters for quantitative testing. Data collection and analysis is often conducted separately, but there is a possibility that the qualitative material provides a basis for quantitative data collection: e.g., coding of text. However, it is important to recognise that much qualitative research may be explanatory-driven with very careful selection of cases, research objects. The boundary is not always clear, and much qualitative research in human rights is explanatory and seeks to test various hypotheses.⁸⁰

A pertinent example of exploratory sequentialism is Gauri and Brinks' edited collection *Courting Social Justice*, which analyses the impact of social rights judgments in Nigeria, India, Brazil, South Africa and Indonesia.⁸¹ The analysis by the participating authors is largely of a qualitative nature, but it was sufficient for the project leaders to develop a database for comparative quantitative analysis. This allowed them to estimate more precisely the numbers of people who benefitted from judgments; and in a later paper the distribution of such benefits amongst different income classes.⁸²

However, sequentialism could also embrace different types of successive methods in an *eclectic* manner. It may be 'qual-qual', 'quant-quant', 'quant-hermeneutic', or 'hermeneutic-empirical', and in an exploratory or explanatory manner. Let us take three examples.

First, a 'qual-qual' approach might be used when the means of confirmation does not need to be quantitative. For example, in a study of the impact of the well-known *Grootboom v South Africa* judgment on constitutional housing rights,⁸³ I began with a range of largely qualitative methods:

⁷⁷ Emilie Hafner Burton and James Ron, 'Human Rights Institutions: Rhetoric and Efficacy' (2007) 4 (4) Journal of Peace Research 379-83.

⁷⁸ See also: Eric Neumayer, 'Do International Human Rights Treaties Improve Respect for Human Rights?' (2005) 49 (6) Journal of Conflict Resolution 925-53.

⁷⁹ Simmons, *Mobilizing for Human Rights: International Law in Domestic Politics*.

⁸⁰ See, e.g., Terence Halliday and Lucien Karpik (eds), *Lawyers and the Rise of Western Political Liberalism: Europe and North America from the Eighteenth to Twentieth Centuries* (Oxford University Press 1998); Roberto Gargarella, Pilar Domingo and Theunis Roux, *Courts and Social Transformation in New Democracies: An Institutional Voice for the Poor?* (Ashgate 2006); Langford and others (eds), *Socio-Economic Rights in South Africa: Symbols or Substance?*

⁸¹ Varun Gauri and Daniel Brinks, *Courting Social Justice: Judicial Enforcement of Social and Economic Rights in the Developing World* (Cambridge University Press 2008).

⁸² Ibid.

⁸³ Malcolm Langford, 'Housing Rights Litigation: *Grootboom* and Beyond' in Malcolm Langford and others (eds), *Symbols or Substance? The Role and Impact of Socio-Economic Rights Strategies in South Africa* (Cambridge University Press 2014) 187-225. For a qual-quant-quant approach, see Malcolm Langford and Cosette Creamer,

interviews, fieldwork, process tracing, descriptive statistics, and legal jurisprudence. The results suggested that existing literature, based principally on a newspaper article, was mistaken. It was possible to identify remarkable local and national material impacts, though limited political and symbolic impacts. In a second phase, and in order to confirm the surprisingly positive findings, a comparative case approach was conducted with qualitative examination of the impact of seven housing rights cases that had emerged in similar circumstances. This phase confirmed but also nuanced the findings, by pointing to the conditions under which positive impacts might emerge.

Second, a ‘quant-doctrinal’ approach might be a promising model for many legal scholars. Mixed methods could help at the data collection phase. Basic statistical techniques can help identify a representative or appropriate sample of judgments or laws for doctrinal analysis. As Linos and Carlson note:⁸⁴

Concerns about case selection and sampling are widespread among legal scholars, particularly the worry of cherry-picking cases that best fit an argument. What is less well-known is how to create representative samples and select cases to make credible, generalizable causal claims.⁸⁵

A more ambitious approach is to extend this quant-doctrinal approach to the analytical phases. For example, Molbæk-Steensig examined critically the claim that the increased usage of the ‘margin of appreciation’ language by the European Court of Human Rights indicates higher levels of judicial deference to states over the past decade.⁸⁶ After coding decisions, she applied regression analysis to a historical dataset that estimated the influence of the presence of margin appreciation language on case outcomes. In the next phase, Molbæk-Steensig examined more deeply selected decisions. She found that the invocation of margin of appreciation is not a sign of a general move to deference (the statistical analysis showed that its usage peaked much earlier) and that governments are not the most frequent invokers. Indeed, even where the term is present in judgments, states are no more likely to win – thus leading her to conclude that it may be used as a ‘marker of complexity for so-called hard cases’ rather than deference.⁸⁷

Third, such eclecticism might work in reverse. For example, a common move in legal (and some social scientific) work is from ‘analysis’ to ‘recommendation’. In a doctrinal manner, a researcher might find a flaw in legislation, or determine that there has been a violation of human rights, and simply make a legal reform proposal. However, this shift to proposing policy or legal reform often involves a change in the research question, with verbs like ‘should/must’ instead of ‘is/are/have’; and often without the recognition that different methods might be then required. Yet, in much crafting of recommendations, the same method from the analysis is simply carried over or the process is simply method-free. This is problematic, and it is at this stage, that additional methods should be considered – especially if the recommendations are to be solidly grounded and widely accepted.

Why might this be necessary? Consider the common elements that should be identified in any standard policy (or legislative) proposal: problem definition, clarification of the underlying goal/values (morality, efficiency, feasibility, coherence), consideration of the proposal’s efficacy

‘The Toonen Decision: Domestic and International Impact’ in Siri Gloppen and Malcolm Langford (eds), *International Sexual and Reproductive Rights Lawfare* (Cambridge University Press 2024) .

⁸⁴ See discussion and approaches in Katerina Linos and Melissa Carlson, ‘Qualitative methods for law review writing’ (2017) 84 U Chi L Rev 213.

⁸⁵ Ibid. 220.

⁸⁶ Helga Molbæk-Steensig, ‘Subsidiarity does not win cases: A mixed methods study of the relationship between margin of appreciation language and deference at the European Court of Human Rights’ (2023) 36 (1) Leiden Journal of International Law 83-107.

⁸⁷ Ibid.

(including feasibility, available alternatives, political acceptability, and/or unintended consequences), formulation of the policy, and planning for adoption, implementation, and monitoring.⁸⁸ To be sure, not all elements may be needed in any particular proposal, and not all require active use of different methods. However, this blind spot in human rights research, and the degree of consideration over the relevance and reception of their recommendations (including amongst the public, officials, judges) has come under increasing scrutiny.⁸⁹ A stronger methodological base for recommendations may help.

4.4 Concurrent approaches

Constituting often a more conscious and planned use of mixed methods approaches, concurrent approaches have become increasingly conspicuous. These approaches usually emerge at the data collection phase – with two or more different forms of data or means of gathering, and then require parallel analysis before integration. They are most useful when sequentialism is ‘impractical’, the ordering of data collection is ‘irrelevant’, or time is ‘pressing’.⁹⁰

Triangulated models are the most common concurrent form, and the means of gathering data can vary spatially, temporally, and methodologically. A popular approach to triangulation is the combination of medium-N survey analysis (circa 50-300 respondents), followed by separate interviews with some of these respondents or others – or the reverse. The advantage of such triangulation is that a partial aggregative picture is combined iteratively with a deeper descriptive and casual analysis. An example is a measurement of the health impact of human rights violations related to Australian asylum policies and practices. A cross-sectional survey was conducted with 71 Iraqi *Temporary* Protection Visa (TPV) refugees and 60 Iraqi *Permanent* Humanitarian Visa (PHV) refugees; and these quantitative results were triangulated with semi-structured interviews with TPV refugees and service providers.⁹¹ Other forms of triangulation studies involve combining large-N infoscience and experimental methods with qualitative methods: see Box 1.

Box 1 Concurrent methods: geographic info science and qualitative methods

In this project by Madden and Ross, the authors combined qualitative data of personal narratives with geographic information science (GIScience) technologies to explore the potential for critical cartography in the study of mass atrocity.⁹² The place was northern

⁸⁸ H. D Lasswell, *Power and personality* (Transaction Press 1948); Christopher Weible and others, ‘Understanding and Influencing the Policy Process’ (2012) 45 Policy Sci 1–21.

⁸⁹ Hendrix Burke, ‘Political theorists as dangerous actors’ (2010) 15 (1) Critical Review of International Social and Political Philosophy 41-61; Philip Alston, ‘The Challenges of Responding to Extrajudicial Executions: Interview with Philip Alston’ (2010) 2 (3) Journal of Human Rights Practice 355-73; Vanessa Baird and Debra Javeline, ‘The Persuasive Power of Russian Courts’ (2007) 60 (3) Political Research Quarterly 429-42.

⁹⁰ Small, ‘How to conduct a mixed methods study: Recent trends in a rapidly growing literature’ 68.

⁹¹ The results found that 46% of TPV refugees compared with 25% of PHV refugees reported symptoms consistent with a diagnosis of clinical depression (statistically significant at the 1 per cent level). The qualitative data revealed that TPV refugees generally felt socially isolated and lacking in control over their life circumstances, which was due to both their experiences of detention and the temporary nature of their visa. A similar study was conducted in in Eastern Democratic Republic of Congo on experiences of female survivors of sexual violence. A non-random sample of 255 women attending a referral hospital and two local NGOs were surveyed, which was followed by focus groups of 48 women survivors. Jocelyn T Kelly and others, ‘Experiences of female survivors of sexual violence in eastern Democratic Republic of the Congo: a mixed-methods study’ (2011) 5 (1) Conflict and health 1-8.

⁹² Marguerite Madden and Amy Ross, ‘Genocide and GIScience: Integrating personal narratives and geographic information science to study human rights’ (2009) 61 (4) The Professional Geographer 508-26.

Uganda, where millions have been affected by physical violence, hardship, displacement and fear. Web-based virtual globes provided a ready source of imagery for remote areas and derived spatial data imported to geographic information systems (GIS) provided quantified data that complemented testimonials and other qualitative data from the field. Cartographic functions, geovisualization, and spatial analyses available in GIS were used to extract information from high-resolution remote sensing images, enabling documentation of internally displaced persons camps and quantifying evidence of crimes against humanity. These techniques explored spatial relationships and communicated results on the extent and impact of the atrocities.

Nested approaches are less common. They require a single research technique or instrument which mixes two or more methods. For example, Linos and Twist combine two different quantitative methods in a single collection design: embedding experimental design in a standard panel survey instrument on the effects on public opinion of two US Supreme Court decisions.⁹³ Another example is a recent comparative constitutional law project led by Tom Keck on freedom of expression. Case law from ten countries have been coded quantitatively and summarised/stored qualitatively in order to enable more integrated data collection and nuanced qualitative, descriptive, and doctrinal analysis.⁹⁴

Another example is the investigation of criminalisation of homelessness in Oslo, Norway.⁹⁵ The Norwegian Centre for Human Rights team began with a doctrinal analysis of the proportionality, discrimination and cruel and degrading treatment law in light of European, international and comparative constitutional law, which was followed by a nested mixed methods survey of 81 persons living on the streets of Oslo. Amongst the quantitative findings, the report found that non-Norwegians were more than twice as likely to be evicted by police, while persons of Roma and African descent were three times more likely to report property confiscation. Qualitatively, the open answers in the survey uncovered the varying relations between police and homeless persons, including the significant divergences in behaviour between individual police officers.

4.5 Crossover Approaches

Finally, newer mixed methods approaches have increasingly challenged the sequential-concurrent divide. Crossover approaches (as foreshadowed in section 4.1) often involve different techniques at the collection and analysis phase. They are often innovative in one of two ways.

The first are those approaches that break up the use of similar methods at the collection and analysis phases. For example, computational methods may be employed to identify a dataset for doctrinal or quantitative analysis; or qualitative or doctrinal analysis may provide the space for network or small-N quantitative analysis. For example, Cosette Creamer used automated content analysis of thousands of documents to create a mood indicator of states in the WTO, which became the central independent variable in a regression analysis of possible reflexive behaviour by adjudicators in the WTO Dispute Settlement Body.⁹⁶ Or, in reverse, Katz, Bommarito, and

⁹³ Linos and Twist, 'The Supreme Court, the media, and public opinion: Comparing experimental and observational methods' 226.

⁹⁴ Thomas M Keck, *The Distinctive Pathologies of US and European Approaches to Free Speech* (Available at SSRN 4227976, 2022).

⁹⁵ NCHR, *Criminalisation of Homelessness in Oslo: An Investigation* (Norwegian National Institution for Human Rights 2015).

⁹⁶ Cosette D Creamer, *Between the Letter of the Law and the Demands of Politics: The Judicial Balancing of Trade Authority within the WTO* (2015); with results published also in Malcolm Langford, Cosette Creamer and Daniel Behn, 'Regime Responsiveness in International Economic Disputes' in Szilárd Gáspár-Szilágyi, Daniel Behn and Malcolm Langford (eds), *Adjudicating Trade and Investment Disputes: Convergence or Divergence?* (Cambridge University Press 2022) 244-84.

Blackman construct a model designed to predict the voting behavior of the Supreme Court of the United States. It uses a traditional quantitative dataset but deploys machine learning techniques to predict more than sixty years of decisions by the Supreme Court of the United States (1953-2013).⁹⁷

The second crossover approach is application of methods that dissolve rather than simply bridge the divide between quantitative and qualitative approaches.⁹⁸ These are especially computational methods – such as automated content analysis, machine learning, artificial intelligence, and large-scale network analysis – that may be used at both the collection and analytical phases. These methods also build new connections with traditionally peripheral disciplines such as linguistics, law and computer science.

Formally, the use of computational methods at both phases might disqualify them as mixed methods. However, as these methods treat unstructured data (text) as appropriate for statistical analysis (as if it were structured data) it has many of the hallmarks of crossover analysis. Machine learning involves the detection of probabilistic relationships between legal or other texts (a quantitative logic), but when neural networks are involved the mathematical logics of necessary and sufficient conditions within texts are effectively introduced through highly complex algorithms (a qualitative logic). For example, machine learning research that seeks to predict the likelihood that a court will find that state acts constitute a violation of the protection of torture, requires both calculation of the general probabilities that certain facts produce certain judicial outcomes as well as the conditions under which certain facts will lead to those outcomes.⁹⁹ To be sure, unravelling these conditions involves the complex, difficult, and emergent methods of explainable AI, but it is field under development.¹⁰⁰

Some of the most notable computational research concern the prediction of different features and outcomes of cases based on the facts of the cases – many involving constitutional courts and human rights law. This has included judgment outcomes in a wide range of countries,¹⁰¹ judicial

⁹⁷ Daniel Martin Katz, Michael J Bommarito II and Josh Blackman, 'Predicting the behavior of the supreme court of the united states: A general approach' (2014) arXiv preprint arXiv:14076333 .

⁹⁸ Wolfgang Alschner, Joost Pauwelyn and Sergio Puig, 'The data-driven future of international economic law' (2017) 20 (2) Journal of International Economic Law 217-31.

⁹⁹ For an attempt but which prioritized too much the probabilistic, see Nikolaos Aletras and others, 'Predicting judicial decisions of the European Court of Human Rights: A natural language processing perspective' (2016) 2 PeerJ Computer Science e93. For a more sophisticated attempt in relation to the drafting of international investment treaties with the use of neural networks, see: Wolfgang Alschner and Dmitriy Skougarevskiy, 'Can robots write treaties? using recurrent neural networks to draft international investment agreements' (2016) .

¹⁰⁰ Ribana Roscher and others, 'Explainable machine learning for scientific insights and discoveries' (2020) 8 IEEE Access 42200-16; Pantelis Linardatos, Vasilis Papastefanopoulos and Sotiris Kotsiantis, 'Explainable AI: A review of machine learning interpretability methods' (2020) 23 (1) Entropy 18: 1-45. In other words, the algorithm provides no human readable explanation of what patterns it has used to make its predictions. Explainable AI methods include feature analysis, where one examines which features in a particular input vector contribute most strongly to a neural network's output. An alternative is to make glass-box models which would examine and make transparent the different paths behind each output.

¹⁰¹ Kevin D Ashley, *Artificial intelligence and legal analytics: new tools for law practice in the digital age* (Cambridge University Press 2017); Daniel Martin Katz, Michael J Bommarito and Josh Blackman, 'A general approach for predicting the behavior of the Supreme Court of the United States' (2017) 12 (4) PloS one e0174698; Ilias Chalkidis, Ion Androutsopoulos and Nikolaos Aletras, 'Neural legal judgment prediction in English' (2019) arXiv preprint arXiv:190602059 ; Alexandre Quemy, 'European court of human right open data project' (arXiv preprint arXiv:181003115); Arshdeep Kaur and Bojan Bozic, *Convolutional Neural Network-based Automatic Prediction of Judgments of the European Court of Human Rights* (2019); Aletras and others, 'Predicting judicial decisions of the European Court of Human Rights: A natural language processing perspective' Kankawin Kowsrihawat, Peerapon Vateekul and Prachya Boonkwan, *Predicting judicial decisions of criminal cases from Thai Supreme Court using bi-directional GRU with attention mechanism* (IEEE 2018); André Lage-Freitas and others, 'Predicting Brazilian court decisions' (2022) 8 PeerJ Computer Science e904; Medvedeva, Vols and Wieling,

positions,¹⁰² judicial authorship,¹⁰³ which lawyers are likely to win cases,¹⁰⁴ and relevant cases and areas of law,¹⁰⁵ influence of public opinion¹⁰⁶ – with most studies using natural language processing.

Others have analysed constitutional texts. David Law examined what influenced the drafting of constitutions by analysing texts at the linguistic level.¹⁰⁷ Using topic modelling techniques, he analysed over two centuries worth of national constitutions, together with a selection of international human rights treaties. It suggested that certain ‘hegemonic forces have left a profound impact on constitutional texts’, namely highly prevalent British, French, and Spanish colonialism, and socialism. In a related paper, he finds two types of human rights ‘dialects’ in constitutions: ‘the universalist dialect and the positive-rights dialect’.¹⁰⁸

In the years ahead, the turn to such crossover methods (as well as eclectic sequential approaches) is likely to only increase. This is due to both supply and demand. On the supply-side, computational methods are increasingly being taught in the social sciences, humanities, and law – making these methods a more standard part of the disciplinary apparatus.¹⁰⁹ On the demand-side, the rise of complexity in social behaviour and legal systems, often called complex adaptive systems,¹¹⁰ requires deep methodological sensitivity. All methods (quantitative, qualitative, hermeneutic, and computational) are helpful in understanding how these systems operate – particular the stability and volatility that emerge from the dynamic interdependence of their elements; as well as providing recommendations on how to improve them.¹¹¹

‘Using machine learning to predict decisions of the European Court of Human Rights’; Conor O’Sullivan and Joeran Beel, ‘Predicting the outcome of judicial decisions made by the european court of human rights’ (2019) arXiv preprint arXiv:1912.10819 ; Michael Benedict L Virtucio and others, *Predicting decisions of the philippine supreme court using natural language processing and machine learning* (IEEE 2018); and Haoxi Zhong and others, *Iteratively questioning and answering for interpretable legal judgment prediction* (2020).

¹⁰² Kevin D Ashley, ‘A brief history of the changing roles of case prediction in AI and law’ (2019) 36 Law Context: A Socio-Legal J 93.

¹⁰³ Malcolm Langford, Daniel Behn and Runar Lie, ‘Computational stylometry: predicting the authorship of investment arbitration awards’, *Computational Legal Studies* (Edward Elgar Publishing 2020) 53-76.

¹⁰⁴ E.g., Mihai Surdeanu and others, ‘Risk analysis for intellectual property litigation’ (Proceedings of the 13th International Conference on Artificial Intelligence and Law) 116–20.

¹⁰⁵ O-M. Sulea, M. Zampieri, M. Vela, and J. van Genabith, ‘Predicting the Law Area and Decisions of French Supreme Court Cases’ (2017); Howe, Khang, and Chai (2019); Quemy, ‘European court of human right open data project’.

¹⁰⁶ Sebastian Sternberg, *No public, no power? Analyzing the importance of public support for constitutional review with novel data and machine learning methods* (Doctoral dissertation - University of Mannheim 2019).

¹⁰⁷ David S Law, ‘Constitutional dialects: the language of transnational legal orders’ (2019) *Constitution-Making and Transnational Legal Order* 110-55.

¹⁰⁸ Law, ‘The global language of human rights: a computational linguistic analysis’ 111.

¹⁰⁹ See, e.g., Graham and others, *Exploring big historical data: the historian’s macroscope* 226.

¹¹⁰ Scott E Page, ‘What sociologists should know about complexity’ (2015) 41 *Annual Review of Sociology* 21-41; JB Ruhl, Daniel Martin Katz and Michael J Bommarito, ‘Harnessing legal complexity’ (2017) 355 (6332) *Science* 1377-8.

¹¹¹ Bernard Burnes, ‘Complexity theories and organizational change’ (2005) 7 (2) *International journal of management reviews* 73-90; Anthea Roberts and Taylor St John, ‘Complex designers and emergent design: reforming the investment treaty system’ (2022) 116 (1) *American Journal of International Law* 96-149; José Quesada, Walter Kintsch and Emilio Gomez, *A computational theory of complex problem solving using Latent Semantic Analysis* (Routledge 2019).

5. Challenges

5.1 Commensurability

We now turn to the limitations of mixed methods. The principal theoretical challenge to the conduct of mixed methods is commensurability.¹¹² As Oberheim and Hoyningen-Huene put it,

Methodological incommensurability is the idea that there are no shared, objective standards of scientific theory appraisal, so that there are no external or neutral standards that univocally determine the comparative evaluation of competing theories.¹¹³

Thus, the approaches may be so different that integration at any stage is not meaningful or feasible. These differences have an ontological, normative, and epistemological character.¹¹⁴

Ontologically, the content of each method varies considerably, in its research object, its approach, and its focus. While the categorisation of methods can be done in different ways, Beach and Kaas summarise nicely the ontological divide behind three distinct approaches. These also map roughly onto the quantitative, qualitative, and legal/textual methods discussed in this chapter:

Drawing on recent developments in the philosophy of science and within social science methodology, we claim that there are three fundamentally different methodologies within the social sciences: (1) variance-based methodology, where counterfactual causal claims act as the shared ontological bases that are studied with cross-case evidence of difference-making; (2) case-based methodology, which focuses on causal mechanisms or processes as the fundamental ontological claims that are evidenced using observational traces (aka mechanistic evidence), often supplemented with bounded cross-case comparisons; and (3) interpretivist methodology, which is focused on meaning-making within particular social contexts. Case-based and interpretivist methodologies are sometimes termed “qualitative,” but this is an unhelpful term that tends to conflate two approaches with fundamentally different ontological and epistemological foundations.

Normatively, within each methodological tradition, there are different hierarchies of method within each tradition, concerning both data collection and analytical techniques. If we take the three traditions discussed by Beach and Kaas, we find respective ‘gold standards’ for methodological excellence within each: ‘experiments’ for variance-based; ‘process tracing’ for case-based; and ‘trustworthy thick description’ for interpretivism.¹¹⁵

Epistemologically, each tradition has a different conception of social reality. Within the quantitative/variance-based approach, positivism is often prevalent: there is an inherent belief in the ‘existence of an independent social reality’ and pursuit of ‘objective truth’.¹¹⁶ As we move further along the other two approaches, qualitative and especially hermeneutic, the ‘existence of

¹¹²Abhishek Chatterjee, ‘Ontology, epistemology, and multimethod research in political science’ (2013) 43 (1) *Philosophy of the Social Sciences* 73-99; Small, ‘How to conduct a mixed methods study: Recent trends in a rapidly growing literature’ 77-79.

¹¹³Eric Oberheim and Paul Hoyningen-Huene, ‘The incommensurability of scientific theories’ in Edward N. Zalta (ed), *Encyclopedia of Philosophy* (Stanford University 2013) available at <http://plato.stanford.edu/archives/spr2013/entries/incommensurability/>, p. 1

¹¹⁴Derek Beach and Jonas Gejl Kaas, ‘The great divides: incommensurability, the impossibility of mixed-methodology, and what to do about it’ (2020) 22 (2) *International Studies Review* 214-35. See also Derek Beach and Rasmus Brun Pedersen, *Causal case study methods: Foundations and guidelines for comparing, matching, and tracing* (University of Michigan Press 2016).

¹¹⁵Beach and Kaas, ‘The great divides: incommensurability, the impossibility of mixed-methodology, and what to do about it’ 227.

¹¹⁶Small, ‘How to conduct a mixed methods study: Recent trends in a rapidly growing literature’ 77.

a (knowable) social reality’ is questioned and research seeks to take seriously ‘subjective experiences’.¹¹⁷

In the case of legal interpretivism though, it is a curious combination of both. There is often a positivist presumption that there is an objectively knowable legal interpretation, but an acceptance that law is ultimately an abstract construction, which must be subjectively determined in a time and place. This means that in ‘hard cases’ leading theorists argue that interpretation can only be resolved ultimately by authoritative judicial decisionism¹¹⁸ or superhuman perseverance and skill.¹¹⁹ To be sure, others reject strong versions of positivism for even easier cases¹²⁰ or turn to various institutional techniques to deal with hard cases.¹²¹

The ways to resolve these three challenges to commensurability is as much art as science. We can articulate briefly three general approaches. The first is *rigorous triangulation*. Here, the researcher seeks to make the results as commensurate as possible. For instance, Kern analysed the current and preferred political power of traditional leaders in Uganda and Tanzania using three sources: constitutional-legal texts; the Afrobarometer survey; and in-depth interviews.¹²² In order to triangulate, he first put the descriptive and normative results from these sources in ordinal-like commensurate units of scales: ‘none’, ‘none+’, ‘small-’, ‘small’, ‘small+’, ‘some-’, ‘some’, ‘some+’, and ‘large-’.

Table 4. Summary of Scalings by Source.

Sources	Uganda		Tanzania	
	Status quo	Preferred	Status quo	Preferred
Constitutional-legal texts	some	—	none	—
Afrobarometer	some—	large—	small—	small +
Interviews				
<i>state actors</i>	some	small	small—	none
<i>traditional actors</i>	small +	some +	small	small—
<i>experts/civil society</i>	some +	some	none +	none +

These are shown in Table 4. Five different strategies were then used to assess the overall direction of these ranked findings within each method: (1) random selection (2) arithmetic mean (3) majority of scores (4) weighted averages and (5) winner-takes-it-all.¹²³ If the researcher is

¹¹⁷ Ibid.

¹¹⁸ H.L.A. Hart, *The Concept of Law* (Oxford University Press 1961).

¹¹⁹ Ronald Dworkin, ‘Hard cases’ (1974) 88 Harv L Rev 1057.

¹²⁰ See, e.g., Stanley Fish, ‘Working on the chain gang: Interpretation in the law and in literary criticism’ (1982) 9 (1) Critical Inquiry 201-16

¹²¹ For example, legal categories that provide pre-set answers (formalism), re-allocation of interpretive authority to government or private actors (deferentialism), privileging of certain substantive values (vigilance) or creative use of process and remedies to create consensus on interpretation (experimentalism/responsiveness). See overview in Malcolm Langford, ‘Climate Change in Courts: A Responsive Approach’ (Annual Lecture, Centre for Environmental Law, Macquarie University). See also Katherine Young, *Constituting Economic and Social Rights* (Oxford University Press 2012).

¹²² Florian G Kern, ‘The trials and tribulations of applied triangulation: Weighing different data sources’ (2018) 12 (2) Journal of Mixed Methods Research 166-81.

¹²³ Note that I have slightly changed the order from the original article.

convinced that the measure from each method is of equal quality, then one might choose one of the first three strategies: random choice of method, calculating the arithmetic mean (summing the the scalings and dividing them by the number of sources), or determining which scores have a majority (which is ‘some’). The last two strategies can be relevant if there is a clear differences in the quality of the sources of information and analytic method. For example, one might weight or privilege the Afrobarometer given its large sample size or some of the experts given their detailed knowledge and long experience.¹²⁴

Other versions of such triangulation are more behaviourist, preferring the method that best predicts a sub-sample or future outcomes is preferred. These approaches clearly provide a new and promising methodology for overcoming the epistemological, normative, and ontological divides for empirical-centric research. However, there is a risk that it privileges quantitative and computational approaches, which are often designed with this in mind. Use of this method would also need to ensure that qualitative methods are designed to also capture and measure future behaviour. It is thus challenging to implement, and is not appropriate for all mixed method projects.

The second response is *pragmatism* or post-positivism. Drawing on philosophers such as Rorty, mixed methods scholars advocate often ‘what works’ to answer research questions, empirical puzzles, or policy (and arguably legal) questions.¹²⁵ Judgment is suspended about the existence and nature of true reality in order to find ways to improve and communicate knowledge. This ‘dialogical approach’¹²⁶ is perhaps the most consistent with the overall mixed methods agenda, seeking to tone down the paradigmatic wars. As Tait and Taylor state, ‘we do not treat our data as “like units” that we simply add to one another to obtain an output.’¹²⁷ Rather each set of data is considered on its ‘own terms’ and put subsequently into a conversation with the other.¹²⁸

While pragmatism can be somewhat messy, the emphasis is on the transparent, careful, and humble treatment of the respective findings/methods. Unity is not achieved by mere rational analysis of phenomena, but by observing with ‘care’ the ‘relation’ between them.¹²⁹ Caution is needed nevertheless. Excessive or misplaced pragmatism can also lead to a situation where scholars ‘avoid, rather than address, important questions’.¹³⁰

The third and final approach is *bricolage*. Instead of worrying over epistemological, normative, and ontological differences, methods are instead embraced in a more relativistic manner:

[B]ricolage has been used to describe the process of undertaking research that brings together a range of multidisciplinary theories and approaches...The notion of bricolage being advocated recognises the dialectical nature of ontological, epistemological and methodological relationships.¹³¹

Such an approach can be useful for fields which are either deeply interdisciplinary, emergent, or in deep crisis. The mere bringing together of different forms of knowledge can help prompt dialogue, understanding, and new research. At the same time, such an approach may be

¹²⁴ Kern, ‘The trials and tribulations of applied triangulation: Weighing different data sources’ 176-7.

¹²⁵ Johnson and Omwuegbuzie, ‘Mixed Methods Research: A Research Paradigm Whose Time has Come’.

¹²⁶ Tait and Taylor, ‘The Possibility of Rights Claims-Making in Court: Looking Back on Twenty-Five Years of Social Rights Constitutionalism in South Africa’ 11.

¹²⁷ Ibid.

¹²⁸ Ibid.

¹²⁹ Robert M Pirsig, *Zen and the art of motorcycle maintenance: An inquiry into values* (Anniversary edn, Random House 2004) 279, 252.

¹³⁰ Small, ‘How to conduct a mixed methods study: Recent trends in a rapidly growing literature’, 63.

¹³¹ Tony Warne and Sue McAndrew, ‘Constructing a bricolage of nursing research, education and practice’ (2009) 29 (8) *Nurse Education Today* 855-8, 855.

unsuitable in fields in which these conditions are not present. Of course, bricolage is only a short journey from resignation in seeking to make commensurable different methods. As Small states, ‘some analytical techniques are incommensurable, because their techniques are tightly coupled with conflicting epistemological perspectives’.¹³² This stance may be prudent, and highly appropriate for some projects. Yet, resignation should not lead to prejudgement as to the closeness of the epistemologies in any concrete research – especially when there are ‘shared beliefs’ within or across paradigms.¹³³

5.2 Practical Challenges

We now turn to a more practical challenge. A burning issue for most considering multimethodism is simply how to master, technically and ethically, new methods; as well as engage with the broader literatures behind them.¹³⁴ Most graduate researchers have mastered only a limited set of methods, even if their undergraduate training was pluralistic. The challenge in the legal research community, and fields like history and philosophy, is even more acute: methodological singularity reigns supreme from the bachelor level, and onwards. Thus, one risks ‘dilettantism’, seeking to rise above a single method yet failing to master multiple methods.¹³⁵ A jack of all trades, a master of none.

The practical challenge does not stop there. Even if one can master multiple methods at a point in time, can the expertise be sustained? Given the ongoing and accelerating specialisation in all disciplines, maintaining mixed methods competence can be demanding,¹³⁶ for individuals and organisations. A risk with interdisciplinary endeavours is that they solidify in silos; just think of the many human rights centres and institutes. While such amalgams may concentrate expertise, they risk their research becoming stale and naïve, especially if it is ‘cut off from fresh infusions of disciplinary knowledge’.¹³⁷ To be sure, not all may wish to sustain mixed methods competence – it may be for a single project, or season of research. But it requires, nonetheless, reflection, particularly if there is significant investment in achieving an acceptable degree of expertise in another method.

In facing these practical challenges, there are four possible responses. The first is to *moderate ambition* according to capacity and context. A commitment to genuine multimethodism often means a willingness to learn and use another method at some level. But it does not necessarily require full mastery of all the nuances of a method. Instead, basic literacy, general familiarity, or mastery of specific areas/methods may be sufficient for the task at hand. Descriptive statistics, basic network analysis, qualitative cluster analysis of answers to a survey, are all methods that most researchers can learn. One can start with small steps.

The second is a *full-blooded commitment* to learn sufficiently a new method. An individual researcher or organisation may undertake the necessary training and finds a community in which to test ideas and receive advice. For example, a legal Ph.D scholar, based at a South African university in South Africa, recently used some of the time in her doctoral degree to learn the R-statistics package and quantitative content analysis.¹³⁸ She did this by joining an online scholarly

¹³² Small, ‘How to conduct a mixed methods study: Recent trends in a rapidly growing literature’ 78.

¹³³ John A Brierley, ‘The role of a pragmatist paradigm when adopting mixed methods in behavioural accounting research’ (2017) 6 (2) International Journal of Behavioural Accounting and Finance 140-54.

¹³⁴ Beach and Kaas, ‘The great divides: incommensurability, the impossibility of mixed-methodology, and what to do about it’ 230-1.

¹³⁵ Nissani, ‘Ten Cheers for Interdisciplinarity: The Case for Interdisciplinary Knowledge and Research’ 212, 212.

¹³⁶ Small, ‘How to conduct a mixed methods study: Recent trends in a rapidly growing literature’ 79.

¹³⁷ Grant and Reisman, *Perpetual Dream* 35.

¹³⁸ Biandri Joubert, *Sanitary and phytosanitary measures as barriers to trade: A South African perspective* (PhD Dissertation, University of Oslo and North-Western University 2022).

collective. To be sure, this approach can be challenging and it requires humility, especially for academics and researchers that are used to mastering or perfecting their existing craft. However, it is often deeply rewarding. Not only does it assist with answering research questions, it often provides new perspectives and cognitive distance from one's existing paradigms. Moreover, the literature on creativity and engagement with complex tasks, suggest that it can improve well-being. Kashdan and Silvia conclude:

People who are regularly curious and willing to embrace the novelty, uncertainty, and challenges that are inevitable as we navigate the shoals of everyday life are at an advantage in creating a fulfilling existence compared with their less curious peers.¹³⁹

The third approach is to *collaborate* with others who have acquired the requisite expertise. Such strategies tend to be the most common in projects that require quantitative and computational methods.¹⁴⁰ But it is equally needed in projects that cross the law-social science divide. In the words of Huneus, social scientists 'need to lawyer up' – and vice-versa.¹⁴¹ A good example is the analysis by Helfer (a lawyer) and Voeten (a political scientist) of the material impact of the LGBT judgments of the European Court of Human Rights.¹⁴² With the relevant competences, they be *question-driven*. They demonstrate first legal sensitivity in handling the relevant jurisprudence and identifying legislative reforms at the national level, and then construct a somewhat complex quantitative model to operationalise different hypotheses and control for confounding causal factors. The result is that the authors then offer a convincing story of the specific conditions under which the Court has engendered legal transformation, such as being an ally (or excuse) for pro-LGBT governments facing down hostile and sceptical publics.

It is important to remember though that expertise is not just a function of methodological competence; it also a question of access to and familiarity with data and different domains more generally. For example, in a triangulation-based mixed methods study of South Africans perspectives on rights and courts Tait and Taylor combined their respective data collections: interviews of 77 respondents and a 551-person survey.¹⁴³ As both methods targeted disadvantaged South Africans and required considerable on-the-ground organisation, this allocation of different data collection roles (planned or not) was clearly efficacious.

The final approach is systemic. It is to improve undergraduate and postgraduate education. Such reforms can range from ensuring training in the 'basic workings and underlying foundations' of all key methodologies through to providing greater in-depth training in a wider range at a graduate stage (on a mandatory or voluntary basis).¹⁴⁴ Notable examples of the latter include the Jurisprudence and Social Policy Ph.D at the University of California (Berkeley), in which graduates acquire a wide range of competences across all disciplines and methodologies relevant to law.¹⁴⁵ However, it is somewhat difficult to be too hopeful. In the past decade, there has been little progress across many disciplines in better balancing the quantitative-qualitative divide; and a general resistance to interdisciplinarity persists in most legal and humanities programmes. While Justice Oliver Wendell Holmes predicted in 1897 that 'For the rational study of the law

¹³⁹ Todd B Kashdan and Paul J Silvia, 'Curiosity and interest: The benefits of thriving on novelty and challenge' (2009) 2 Oxford handbook of positive psychology 367-74.

¹⁴⁰ See, e.g., Laurence Helfer and Erik Voeten, 'International Courts as Agents of Legal Change: Evidence from LGBT Rights in Europe' (2014) 68 (1) International Organization 77-110.

¹⁴¹ Huneus, 'Human rights between jurisprudence and social science' 265.

¹⁴² Helfer and Voeten, 'International Courts as Agents of Legal Change: Evidence from LGBT Rights in Europe'

¹⁴³ Tait and Taylor, 'The Possibility of Rights Claims-Making in Court: Looking Back on Twenty-Five Years of Social Rights Constitutionalism in South Africa'.

¹⁴⁴ Beach and Pedersen, *Causal case study methods: Foundations and guidelines for comparing, matching, and tracing* 230, 230.

¹⁴⁵ Tracey E George, 'An empirical study of empirical legal scholarship: the top law schools' (2006) 81 Ind LJ 141.

... the man of the future is the man of statistics and the master of economics.’¹⁴⁶ That future man (and woman) is yet to arrive.

However, the recent computational turn provides some cause for hope. It has triggered a stronger response across the academy, and partly within the human rights research community. In the last five years, we have seen the development of computational methods training in undergraduate courses, such as the rise of digital humanities, programming for lawyers courses, and machine learning and quantitative text analysis in the social sciences. The increasing use of computational methods by human rights organisations¹⁴⁷ will also trigger a demand for changes to educational pathways into human rights practice.

6. Conclusion

Human rights constitutes a natural field for methodological heterogeneity. While it has been subject to waves of disciplinary hegemony in recent years (philosophy and then law¹⁴⁸), the recent turn to interdisciplinarity and methodological pluralism has found some acceptance. Not only does this turn allow researchers the opportunity to reconceive, reimagine and refine research questions, it provides access to the smorgasbord of methods. With a mixture of quantitative, qualitative, computational, archival, and even philosophical methods, researchers are able to better answer more ambitious questions and address latent evidential ambiguity.

This chapter has attempted to provide a systematic introduction to the use of mixed methods in human rights research. It has focused in large part on what is this approach, when should it be used, and how can it be operationalised. Mixed methods can be understood as the combination of two different methods in the collection and/or analysis of data or other information. It is particularly useful when confronted with open research questions, in which a single method cannot do justice to the inquiry at hand. It is likewise helpful when there is a need to confirm the findings of one method or compensate for its acknowledged weaknesses. Mixed methods can be operationalised in different ways in research designs, whether sequentially, concurrently, or through various cross-over techniques, such as computational analysis.

However, as this chapter has argued, there are many challenges in embracing mixed methods. This includes making results sufficiently commensurable and obtaining sufficient competence. Improving commensurability will require greater experimentation with triangulation and a pragmatic wisdom in integration, while bettering competence requires a deep rethink of the scaffolding for human rights research. There is a need to enhance cross-disciplinary institutional collaboration,¹⁴⁹ develop interdisciplinary literacy and new forms of educational instruction,¹⁵⁰ and foster the courage and humility to subject work to multidisciplinary peer review. In the face of methodological uncertainty, the scholarly temptation is to retreat instinctively to well-worn paths. However, new paths may be more rewarding, even if they are demanding. It increases the likelihood of finding more plausible answers to our questions and, ultimately perhaps, improving accountability for human rights and the quality of human rights advocacy.¹⁵¹

¹⁴⁶ Oliver Wendell Holmes, ‘The Path of the Law’ (1897) 10 Harv L Rev 457, 469.

¹⁴⁷ See, e.g., Patrick Ball and Megan Price, ‘Using statistics to assess lethal violence in civil and inter-state war’ (2019) 6 Annual review of statistics and its application 63-84.

¹⁴⁸ ‘In the legal literature, a hundred papers parsing human rights doctrine to ever finer degrees are written for every paper that takes an empirical approach’ Eric Posner, *The Twilight of Human Rights Law* (Oxford University Press 2014) 143.

¹⁴⁹ Braithwaite, ‘In Praise of Tents: Regulatory Studies and Transformative Social Science’.

¹⁵⁰ Nissani, ‘Ten Cheers for Interdisciplinarity: The Case for Interdisciplinary Knowledge and Research’.

¹⁵¹ On the latter, see Malcolm Langford, ‘Critiques of human rights’ (2018) 14 Annual Review of Law and Social Science 69-89.