Methodologies of Informed Intuition

The Role of Informed Intuition and Intuitive Openness

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Abstract

In political science, positivist scholars often approach intuition cautiously as something best avoided or improved by methodological training. Meanwhile, interpretive scholars typically laud "hunches" as necessary guiding logics. This article introduces the novel concept of informed intuition, drawing on understandings of intuition in cognitive psychology and organizational behavior that emphasize the importance of learning and feedback in developing and using intuition. Many political scientists agree that they use intuition privately but rarely acknowledge it in published works. As such, the article argues for harnessing, acknowledging, recognizing, and legitimizing the role of informed intuition across methodological and epistemic divides. Specifically, the article demonstrates the importance of acknowledging the role of informed intuition regarding (1) the logics of research (inductive, deductive, or abductive), and (2) case selection. In doing so, the article aligns with discussions of transparency to argue that researchers should also consider demonstrating intuitive openness to enhance research integrity.

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Introduction

We often fail to write about aspects of our research that directly pertain to how we make decisions. In every cohort of students, I encounter those with direct professional experience and expertise, deep socialization in their research context, and insights that relate to such experience, expertise, and socialization. We might discuss such background information at conferences and over coffee with colleagues. But, these factors – that can prompt informed intuition and affect research choices – rarely make their way into our published work.

To date, we might assume there is little cost to not documenting the role of informed intuition. But, there are costs to presenting research that appears perfect and hides the mess; it stifles students who struggle through the research process, juxtaposing their own struggles with the smooth research processes they encounter in existing literature. Moreover, we cannot evaluate research accurately without such insights – where did our intuition about what case to choose, what hypotheses to test, what theories to work with, and what evidence to seek out really come from?

There are also costs to not recognizing the role of our backgrounds in research by suggesting we can work on all cases equally. This impulse can be unhelpful by encouraging researchers not to start

with their own skills and insights as the basis of their research choices, and to recognize the start-up costs of straying outside their expertise. In my own research, while I had background insights and a sense of a puzzle derived from prior experience in one case (Moldova), I chose to work on another case (Crimea) because it seemed another example of the concept I was working on (Knott 2022). In Crimea, I could embed myself in prior literature, but I had neither contacts, prior experience, nor socialization here. Hence, I entered Crimea with huge start-up costs, asking the wrong questions, and having to develop my expertise from scratch. Yet, as much as research is about using and tapping into our informed intuition, informed intuition is also a constant, and career-long, feedback loop of being challenged, learning, and honing.

In political science, intuition is often approached with caution as a source of unconscious bias and to be avoided (King, Keohane, and Verba 1994; Odell 2001; Gerring 2004; Kreuzer 2010), or improved by methodological training, e.g., in Bayesian reasoning (see McKeown 1999; Fairfield and Charman 2017; Bennett, Charman, and Fairfield 2022; Barrenechea and Mahoney 2019). In cognitive psychology and organizational behavior, intuition is more often viewed as something to harness. Outside of these sub-fields, examining the role of informed intuition remains confined to the shadows. Even while informed intuition might play a fundamental role in research and our decision-making processes, such as case selection, we lack insight into how we account for and report its role in publications, and we lack discussions about the value of doing so.

However, facilitating and training students and researchers to be (and be able to be) methodologically, sociologically, and politically intuitive is important, just as training researchers to design research and use specific methods is important. This moment is ripe for discussing the role of intuition. Alongside a growing emphasis on methods training, the "return" (via quantitative, if not experimental, methods) of the single-n case study (Pepinsky 2019), there are also reducing incentives for immersive and medium-long term fieldwork that can result in the devaluing of empirical knowledge and the possibilities to develop such knowledge (Helmke and Powell Jr 2015). However, without deep empirical knowledge, we are reducing the quality and relevance of social science research, especially for the contexts studied (Geddes 2015; Pepinsky 2019).²

Firstly, this article argues for acknowledging and normalizing the role of informed intuition. Secondly, this article argues that this acknowledgment should come with a stronger commitment to being (more) transparent, accountable, and reflexively open about the role of informed intuition (intuitive openness), regardless of one's epistemic and ontological approach. Overall, I argue that informed intuition plays an important role in research design but is too often ignored or unacknowledged; being more willing to discuss the role of informed intuition would lead to a more honest, transparent, and (ultimately) pedagogical dialogue. If students are not exposed to the contingencies and intuitive moments of others' research design, we are doing them a disservice by implying that the research

^{1.} I do not intend to characterize all of political science as opposing the use of intuition. Some remark on intuition as necessary for good research (Beach and Pedersen 2013; Geddes 2015; Helmke and Powell Jr 2015; Pepinsky 2019; Lerner 2023), including for honing theoretical insights via fieldwork (Htun and Jensenius 2021). Further, Zaks Zaks (2021) views intuition as part of the research process, even within a Bayesian approach. Finally, interpretive approaches in political science (1) laud the guiding role of "hunches" (Schwartz-Shea and Yanow 2012; Yanow and Schwartz-Shea 2015; Wilkinson 2015), an analogous term to intuition, and also note the comparative role of intuition for making "sense of the exotic or unfamiliar" (Boswell, Corbett, and Rhodes 2019, 6).

^{2.} Many researchers begin their academic careers with substantive prior expertise and experience in their contexts of interest, but our profession can fail to value such prior expertise.

process progressed more smoothly than it ever did in reality.

This article focuses on the role of informed intuition regarding research design rather than field-work. Others have already argued that fieldwork is a process of honing and being guided by one's intuition within the nexus of positionality and contingencies of the field (see Thaler 2021). Rather, I focus on the role of informed intuition prior to and after fieldwork, during research design, and stages of analysis.

First, I conceptualize informed intuition in the context of research design. Second, I approach the role of informed intuition by discussing the logics of research (deductive, inductive, and abductive). I show how informed intuition aligns with an abductive approach that is often sidelined in political science research design because of confirmation bias towards deductive research, or research that appears deductive. Third, I engage with the role of informed intuition through the lens of case selection. Fourth, I transform the notion of informed intuition into intuitive openness. Lastly, I offer some practical guidance on integrating these notions of intuitive openness in the reporting of research.

Conceptualizing Informed Intuition

Before we can understand and legitimize the role of informed intuition, we need to define informed intuition and situate the dimension of intuition within existing debates.

Cognitive psychology and organizational behavior emphasize intuition's qualities of learning and iterative development of expertise (Lieberman 2000; Salas, Rosen, and DiazGranados 2009; Tonetto and Tamminen 2015). These fields help us identify what intuition is not. Intuition is not instinct, which is innate (Hogarth 2010). Rationality and intuition are also not opposites (Sadler-Smith and Shefy 2004; Tonetto and Tamminen 2015). Dictionaries commonly define intuition as something to be trusted because of "gut feelings" (Cambridge Dictionary, n.d.). However, cognitive psychologists resist this definition by emphasizing the learning, and thus iterative, dimension of intuition. For example, Lieberman Lieberman (2000, 110) defines intuition as a "phenomenological and behavioral correlate of knowledge obtained through implicit learning", and Hogarth (2010, 339) defines it as "learned behaviour".

Definitionally, informed intuition builds on these prior definitions of intuition. Hence, I define informed intuition as a guiding logic that is iteratively based on prior knowledge and experience; intuition is *not* uninformed.³ Critically, informed intuition develops and improves over time, by developing an understanding of extant literature, tools of conceptualization, socialization, sociological imagination, and field experience. Hunches, as well as hypotheses, whether informal or formal, are all part of informed intuition. However, they are not synonymous; these dimensions are all part of informed intuition but, individually, are neither necessary nor sufficient.

Fundamental to intuition is gaining and seeking feedback (Hogarth 2010), and playing devil's advocate with oneself to identify, account for, and mitigate one's biases, whether emerging from confirmation bias, hindsight bias, or over-confidence (Sadler-Smith and Shefy 2004). Within these

^{3.} By combining informed and intuition, my intention is to highlight to a political science audience less familiar with cognitive psychology definitions of intuition the role of prior information (e.g., knowledge, experience) within intuition; i.e. to emphasize that intuition is not uninformed. My intention is not to highlight anything about the quality of one's intuitions, since these vary by person and circumstance, and iteratively develop over time.

parameters, honing informed intuition is about empowering our experience of the social world within our research.

This conceptualization might imply that senior scholars have better-informed intuition than more junior scholars. Rather, informed intuition is also highly context- and domain-specific. Someone growing up in a particular context – regardless of seniority or status – will likely have more developed informed intuitions in some domains than someone without this experience and expertise but might lack the theoretical grounding or conceptual hooks of others. Informed intuition is neither a spectrum of more or less, nor a hierarchical preference for some elements – e.g., theory – over others. Rather, it is an assemblage of different intersecting facets of expertise that can be developed and questioned by all. Fundamental to informed intuition is the ability to self-assess, account for, and reflect on how intuitions informed and transformed assumptions and the role of biases (e.g., personal, disciplinary, or methodological). Thus, acknowledging informed intuition does not emphasize that we do anything differently in how we conduct research; rather, it emphasizes that we recognize the research process more honestly for what it is: as an iterative feedback loop through which we learn, whether we are students or senior scholars.

I emphasize the need to harness informed intuition and to report, and account for, its role through the notion of intuitive openness. Informed intuition is already an implicit part of designing and conducting research; it is already part of how we choose what to research, where to research, and how to research. Indeed, it is also made explicit when we discuss its role with mentors, colleagues, or friends. This article's provocation is to make the role of informed intuition explicit for readers of our published works. In organizational behavior, Kump (2022, 635–36) examines the trade-off between reporting intuition and being viewed as "lacking in scholarly rigor", versus "downplaying" the role of intuition and being less honest when writing-up research. While researchers do acknowledge the role of intuition in informal conversations, what is "actually impairing rigor" is "downplaying" or "camouflag[ing]" its role in written-up research (635–36). What makes research more rigorous is actually reporting what was involved in the research process (641).

Moreover, the omission of intuition, when we write up research, has downstream effects by socializing graduate students to "launder out" the details of the research process that pertain to "uncertainties, contingencies" (Delamont and Atkinson 2001, 102, 88). Yet, graduate students also experience "reality shock" when their research projects do not progress as smoothly as the literature implies (102, 88). Hence, while scholars are willing to discuss the role of informed intuition in private circles, our unwillingness to do so in public or in writing is performing a disservice to the honesty and rigor of our research and to those trying to learn from us and our writing.

Most of us use informed intuition in making mundane or consequential research choices when designing, executing, and writing research. But, in failing to account for the role of intuition and intuitively open, we are being untransparent (if not dishonest and disingenuous) about the contingencies, uncertainties, and mistakes of the research process (Delamont and Atkinson 2001; Kump 2022). Just like when scholars fail to reflexively engage (Bond 2018), acknowledging the role of informed intuition does not introduce bias because such bias was already present. The decision is not whether to introduce bias or not, but whether to develop skills to identify and acknowledge such potential biases. Thus, acknowledging and accounting for informed intuition is one part of the endeavor for a more traceable, open, and honest account of what political scientists do and practice, aligning with

emergent discussions to foster transparency as reflexive openness (MacLean et al. 2019, 1).4

In the next sections, I discuss the role of informed intuition in relation to (1) the logics of research and (2) case selection.

Informed Intuition and the Logics of Research

When researchers think about their logic of research, by which I mean how they conceive of and plan for the relationship between theory and evidence, they face three options: deduction, induction, and abduction/iteration. First, a deductive approach, or theory-testing, begins by developing hypotheses from theory and tests such hypotheses by evaluating evidence (theory \rightarrow evidence). Second, an inductive approach, or theory-building, uses evidence to guide and develop theory (evidence \rightarrow theory). Third, an abductive or iterative approach combines the logics of induction and deduction in a "puzzling out" between theory and evidence (theory \rightleftharpoons evidence) with the aim of theoretical innovation (Selg and Ventsel 2020, 232; Schwartz-Shea and Yanow 2012).

These three options – deductive, inductive, or abductive – are a choice. But they are often not presented as a choice. Across the social sciences, a "confirmation bias" towards deductive research persists, where scholars are implicitly, and sometimes explicitly, messaged that "good" (and "better") research is deductive, irrespective of the circumstances of such research (e.g., whether or not prior theories to be tested exist, Kerr 1998). This incentive structure creates perverse effects (Yom 2018). For example, researchers can be showhorned into believing there is no viable alternative to a deductive approach, encouraging research to be written-up "as if" it is deductive, and the reporting of "post hoc hypotheses [...] as if they were, in fact, a priori hypotheses" (described as 'HARKing', Kerr 1998).

To solve this problem, we need to recognize the logic of research as a research decision that should be documented and accounted for. We should also make space for more intuitive approaches, like abduction. Here, insights from qualitative sociology, Bayesian approaches to qualitative research, and machine learning (discussed below) prompt us to question the apparent hegemony of deduction, at least in political science. Not only might abductive approaches be fruitful. But, from the perspective of research integrity, they are also closer to the process that most researchers take. In turn, an abductive approach aligns with developing and challenging our intuitions in the research process.

Moving forward from a deductive hegemony (Yom 2015) to recognizing a plurality of options and the importance of transparently documenting such a choice and its influence on research (design) requires acknowledging the role of informed intuition. Breaking the firewall that separates deductive theory-testing and inductive theory-building approaches and recognizing that more work than is currently acknowledged is abductive can also help us acknowledge and harness a more open account of research design. In turn, we can recognize the role of informed intuition (as part of an abductive

^{4.} MacLean et al. (2019, 1) define reflexivity as "sustained reflection on ethical research practices", especially vis-à-vis participants, justification of such practices, and a "universal" standard for all, "regardless of subfield, methodology, topic, and empirical context". I take a broader definition of reflexivity that extends beyond ethics, as a mechanism for accountable and reportable practices by self-assessing for decisions made and assumptions held by the researcher(s), in relation to who they are and the power they hold vis-a-vis participants, the field and broader context of research, data collected and analyzed, concepts and literatures used, and audiences engaged with (for discussion, see Informed Intuition and the Logics of Research.

^{5.} Yom (2018) the costs of deviating from these norms where the current incentive structure prevents seemingly messy research from being published because it conflicts with existing norms.

research process). Thus, acknowledging the role of intuition can help us recognize that we face a choice of research logics that itself needs to be accounted for, justified, acknowledged, and documented.

The Abductive Alternative

Abduction involves "recursively moving back and forth between a set of observations and a theoretical generalization" (Tavory and Timmermans 2014, 4). Here, abduction holds the potential for both a creative and exciting research process and theoretical innovation because the researcher is driven by understanding, making sense of, and theoretically explaining "surprising research evidence" (5, 7–8). While induction and deduction rely on seeing observations and theory as "dependent or independent", abduction conceives of theory and observations as "interdependent" (Selg and Ventsel 2020, 228). In turn, abductive approaches emphasize a "puzzling" dimension to the iterative nature of the research process, "from the surprise towards its possible explanation(s)" (Schwartz-Shea and Yanow 2012, 27).

Abduction is recognized as a common logic of research among qualitative scholars and ethnographers, in particular. Hence, it is more normalized and commonly discussed in sociology than in political science. But, abduction has also been broached in discussions of machine learning in political science and more broadly. This endorsement stems from recognizing the problems of a deductive hegemony (Yom 2015), namely that relying on deduction can lead to missed opportunities to "refine [...] concepts, develop new theories, and assess new hypotheses" (Grimmer, Roberts, and Stewart 2021, 19.10). Yet, such conversations about diversifying the logics of research, or matching the logic of research to the problem and data, can prove difficult because of the deductive hegemony in positivist approaches (Grimmer, Roberts, and Stewart 2021; see also Kerr 1998; Laitin 2013). Instead, Grimmer, Roberts, and Stewart (2021, 19.10–19.11) highlight the significance of "learning" that can occur when analyzing data in more iterative ways or having a more "data-driven" approach to novel conceptual and theoretical elements, free from the strictures of a deductive approach (see also Evans 2016; Brandt and Timmermans 2021; Jensen et al. 2022).

In formalizing theory-building approaches to process tracing, Beach and Kaas (2020, 221) outline an abductive logic by describing how exploring causal processes often necessitates "a back-and-forth, abductive research strategy," such as when "one's initial theoretical ideas about how the process worked are empirically incorrect" (see also Beach and Pedersen 2013). However, Beach (2021) arguments do not stop at theory-building approaches to process tracing. Rather, they also endorse a more whole-scale abductive approach where the process of knowledge generation is located "in the nexus between 'exceptions to' and 'experience gained from' encounters between researcher and researched" (Ibid 226).

Typically, those who endorse abduction also recognize the role, position(ality), and (prior) experiences of the researcher (Schwartz-Shea and Yanow 2012). In other words, reflexivity is considered a necessary (but sometimes implicit) part of an abductive research process (Beach 2021), and iteration part of a reflexive (and reflexively open) research process (Thomson 2021, 530). Moreover, a researcher must develop an ability to recognize "unanticipated and surprising observations" that might agree or disagree with a theoretical premise, which, in turn, relies on said researcher's theoretical sensitivity (Timmermans and Tavory 2012, 173).

Taking these approaches further, if reflexivity is necessary for abduction, then so is recognizing

and accounting for the role of informed intuition. Just as informed intuition requires theoretical training and honing, immersion in and sensitivity to a research context, and methodological training, so does the logic of abduction, with both aligning well with the other. Moreover, both require reflexivity so that a researcher can both hone their intuitions and employ an abductive logic more competently.

Aligning Abduction and Informed Intuition

Having demonstrated the breadth and usefulness of abduction, we can return to how it might help normalize and legitimize the role of informed intuition and the need to account for it within how research is written up. In this section, I offer two suggestions: either (I) recognize our research process as more intuitive and abductive than most currently do, or (2) more honestly and transparently document deductive approaches (e.g., accounting more for the role of intuition, such as what was developed and learned during and as a consequence of the research process).⁶

First, the logics of research are often not presented as a choice. Instead, there is an implied hierarchy where deductive research is regarded as more rigorous, less subjective, and, hence, more scientific. Inductive and abductive approaches are sidelined as secondary or unwise for researchers to embark on (or inductive and abductive approaches are construed as analogous; see above). Take, for example, process tracing, where inductive and abductive approaches have either been discussed more briefly, if at all, or only recently codified as possible in their own right (Beach and Pedersen 2013; Falleti 2016). Demonstrating the role of intuition and the leverage that intuition provides empirically and theoretically in the process of abduction helps to provide an alternative logic of research – when deductive or inductive approaches break down and an abductive alternative is needed.

Second, and more problematic, is that excellent substantive research is often methodologically 'written up' as deductive when it is not,⁸ shoehorned into a deductive frame when it is not, or hypotheses developed and post-hoc reported "as if" they were a prior (Kerr 1998). Recognizing the role of intuition can help us push deductive approaches further to bring more out of the shadows by requiring more transparent discussions, documenting, and accounting for aspects. When we look for examples of such practices, we can see glimpses of more concretely iterative approaches. Cheng (2018), for example, traces us through her research journey, its messiness, the decisions, and tangents from PhD proposal to the completed book manuscript in the book's methodological 'Coda'. I tried to do the same in my book manuscript: laying out the undulations that took me to the findings and argument way (Knott 2022, see methodological appendix,). Finding such examples, however, is much harder in deductive work because of the problem of writing up research in ways that hides the messy journey of discovery.

We need scholars, therefore, to assume this mantle by providing their own examples in work yet to be written up. Such examples might answer some or all of these questions:

- Where do our hypotheses come from? (e.g., from existing literature, our prior experiences in a

^{6.} For a follow-up discussion see section, What Does Intuitive Openness Look Like in Practice?

^{7.} Beach and Pedersen (2013) highlight two reasons for deciding to work inductively: (1) the absence of prior work/theories, or (2) when deductive work breaks down. Here, the second reason (deductive work breaks down) precisely aligns with an abductive logic of fruitfully combining inductive and deductive logics.

^{8.} In part, this issue arises because approaches to writing – theory first, evidence second – reproduce norms that legitimize deductive research where abductive and inductive research must produce publications in the same order, even if this is not reflective of the research process.

case/context/field site, and/or our assumptions)

- At what point in the research process do we develop our hypotheses? (e.g., some hypotheses might be developed at the beginning while others might come during the research process, but we often document as if all our hypotheses originated at the beginning.)
- How does our understanding of hypotheses develop during and as a consequence of the research process?
- What do we learn during, and as a consequence of, the research process?
- What were our assumptions and intuitions going into the research? How were these honed, changed, and challenged by the research process?
- What did we learn at different stages of the research process?

I lay out these questions to be precise about what acknowledging the role of informed intuition might look like, especially for deductive research. By answering these questions, we can begin to document more transparently the potentially messier (and more intuitive) nature of our research process. From here, we can more honestly report a deductive research process, question if our approach is really deductive, or adopt abduction as an alternative. The usefulness of such questions is unlikely to end with enhancing the transparency and rigor of our work from the readers' perspective. It is possible that engaging with such questions may yield theoretical and analytical benefits also for us as researchers. Engaging with the questions above may encourage us, for example, to recap our process in ways that are illuminating. They prompt us to develop further and deepen our theoretical insights, or to question and challenge ourselves theoretically and empirically. Furthermore, they help hone our perspectives, for example, by returning to what we are taking for granted and what this might be inhibiting, analytically and theoretically. Doing this self-investigative questioning might, in turn, offer us more nuanced and attuned arguments and engagements. In other words, this is not introspection for the sake of it, but a process with few downsides that is relatively easy to implement. At worst, we are already asking ourselves these questions; we are just not letting our readers know.

I do not have a definitive answer on whether research that develops hypotheses during the research process (i.e., as a consequence of intuitions or empirical material) can actually be considered deductive research and if we should, in these instances, switch to clarifying our research is, in fact, more abductive. But, these insights are important for readers to discern in terms of honesty and research integrity. Others can learn from our research process and the less-than-perfect research processes that we all experience. Moreover, many researchers can likely align with a reality of research processes that are abductive (and intuitive), where some parts of the research process might be more inductive, and others might be more deductive.

Exposing what others might imagine as a 'fusion' of approaches (rather than a third way in its own right) might come with potential costs (Yom 2018); but there are costs to the status quo. Pedagogically, we cannot learn from others through a lack of transparency and accountability, and methodologically, we can also not assess the rigor of empirical work without such transparency and accountability. Informed intuition is about recognizing the choices we make. Recognizing and documenting these choices exposes the necessary "scaffolding" of the research process (Pachirat 2015), which is often not laid out. While Pachirat (2015) makes this argument in relation to how and why ethnographic methods are themselves already transparent, the same can be said methodologically. We need

^{9.} Pachirat (2015) argues that maintaining the "scaffolding" of ethnography is already a norm and necessary for good

scaffolding, for example, by documenting research choices that pertain to our logic of research logics so that we can learn and assess as a research community.

Informed Intuition and Case Selection

Not all political science research faces the question of case selection. However, the rationale and justification of case selection concerns ethnographers and experimentalists alike and, thus, cuts across methodological and epistemic divides.¹⁰ Whether we are working with a single case (n=1), a comparative study of a handful of cases (n>1), or even a cross-national quantitative analysis where we select cases to include or not, we both select cases and must justify case selection.

Exploring the role of informed intuition in case selection, I argue that purposive selection is also intuitively informed. Here, I understand purposive selection as the choices used to select and justify cases non-randomly based on their theoretic merit: cases might be selected for their extremities or deviance, their crucial nature as most or least likely cases for a theory being examined, their typicality, their paradigmatic nature, or their variation on a key variable of interest to compare via mill's methods (see Flyvbjerg 2006; Small 2009; Gerring 2016). Such choices are clearly theoretical; they are both theoretically informed and have strong theoretical implications because how we select and justify cases affects the theoretical implications of such work.

But, case selection is not only theoretical; our prior experience and expertise in said cases are also paramount (Flyvbjerg 2006). Hence, informed intuition regularly plays a guiding but unacknowledged role. As Bates Bates (1998, 13) has argued, often "our cases selected us, rather than the other way around". Typically, such experience and expertise might be direct (e.g., via prior socialization or immersion in a particular context), where such direct experience and expertise will likely be informative and paramount. Indirect experience and expertise might also be derived from existing literature or (seemingly) analogous cases, especially when a researcher is working on a new or emerging case of something. Our prior case experience, knowledge, insight, or interest – whether professional or personal – can expose what ought to be explained in the first place. For example, our prior experience might enable us to theorize a case for its extreme or deviant characteristics vis-a-vis theoretical expectations (Small 2009). Meanwhile, informed intuition prompts us to realize that prior experience and expertise are important; we cannot work on all cases that pertain to an issue but often only a subset or a single case. ¹¹

That our cases might select us, rather than us making an active choice (by virtue of prior experience, expertise, and knowledge), is something we rarely prioritize in terms of articulating or justifying case selection. If anything, we might not feel proud of such prior experiences or deem them worthy of informing readers. Instead, we might feel shame by the fact of having to create and articulate a logic of case selection and justification post hoc (Gisselquist 2014) or pressured to "distort the reporting" of case selection such that it "conforms" to what we conceive as disciplinary norms (Soss 2021, 88). We might, for example, simply de-prioritize or edit out the role of informed intuition in case selection in

work, thus there is no need for opening up transcripts or fieldnotes to scrutinu.

^{10.} E.g., Hainmueller and Hangartner (2013) make great efforts to explain of what Switzerland is a case within a universe of restrictive citizenship regimes when they use a natural experiment to investigate who receives Swiss citizenship.

^{11.} Linguistic skills and social connections/networks are separate from informed intuition but also play a meaningful role in case selection; or rather, in excluding cases that a researcher cannot work on.

favor of theoretical reasons that appear more worthy of reporting. Nevertheless, as long as theoretical, practical, and intuitive logics can be aligned, post hoc justifications building on prior intuitions are not problematic. Our job is theoretically to transform our cases and to recognize and represent them as an "analytical construct" (Soss 2021, 89), rather than pre-given geographical entities (Riofrancos 2021), so we can understand them as cases of something conceptually (Lund 2014).

The implication for recognizing the role of informed intuitions in selecting cases is not that we replace anything in what we are already doing. Implicitly, we already use such informed intuitions when we rationalize to ourselves why we select a case or why a case makes sense. We often make these rationalizations explicit to others in private. I argue that we should, at the very least, acknowledge the crucial role that informed intuitions have played in case selection. In turn, I am not arguing that a theoretical justification of case selection should be de-prioritized or replaced; this justification remains important for understanding the relationship between our case(s) and theory. Instead, I am arguing that we supplement this theoretical justification with any informed intuitions that played a role in case selection. In short, being socialized, having lived, or worked in a particular context, having worked previously in a profession or proximate field to that which we are studying, having specific prior political or cultural insights, or even speaking a language are all important dimensions to inform a reader, where relevant; just as the absence of such dimensions is also important to inform the reader.

When selecting cases, a key – but problematic – assumption is that researchers know "ex-ante" about the universe of cases and can select cases systematically from a known population (Gisselquist 2014, 477). Such assumptions are especially problematic in research contexts where some kinds of prior data are less available, such as in sub-Saharan Africa. Instead, the researcher's initial job might be to compile data that does not yet exist and where the dependent variable might, at the time of research design, be "unknown" or unclear (481). Here, we can profitably use and rely on informed intuition and prior research, professional or experience, whether in this research context or others, to make reasonable selections and justifications that can be shored up after data collection and analysis. Failure to do so, and failure to allow or encourage students to do so, can create and reproduce incentive structures that would prohibit such important research in the first place.

Thus, negating the importance of prior experience and existing expertise diminishes and ignores the role of informed intuition. Furthermore, it constructs a false logic that we might have equal expertise – professional, social, cultural, political, and linguistic – and networks and contacts in every case we might end up selecting. For example, I am a researcher with expertise in Moldova and Crimea; I have neither the expertise (e.g., language), networks, nor frankly, the interest to work on a case like Georgia that is similar in many ways to those cases on which I have expertise. Indeed, I deliberately avoid doing so – working on Georgia, in any case, should be the purview of experts in this case. But, as Riofrancos (2021) observes, PhD students can often be encouraged or pressured to include "superficial shadow cases" beyond the researcher's expertise, or intuitive capacity, simply for the purpose of privileging breadth over depth. Yet, and relatedly, when we purposively select cases, we ought to be working within a narrow universe of cases. And, we ought to show "modesty" from the scope of what can be externally learned "from a single paired comparison, however elegantly it

^{12.} Even Geddes (1990, 144) acknowledges this problem, not from the perspective of case selection, but from constructing the universe of cases that would "require extensive knowledge about every country in the world from the French Revolution to the present".

is constructed" (Gisselquist 2014, 482).

In turn, while case selection is often framed as an individual source of bias (Geddes 1990),¹³ there are more concerning collective biases at a macro-level that stem from collective convenience, disciplinary biases, and privilege and affect the creation of knowledge systemically within political science. For example, discipline-wide biases determine which countries are studied more than others, with the US and the UK dominating political science's top "generalist" journals – partly due to the dominance of American Politics as a subfield (Wilson and Knutsen 2022; on IR see also Hendrix and Vreede 2019). Even if political science, and comparative politics in particular, have become more regionally diverse over time, the bulk of research is still conducted on "richer and more democratic contexts", controlling for population size, language, region, and time, at the expense of "poorer and more autocratic" (Wilson and Knutsen 2022, 1025; see also Briggs 2017). This bias of coverage has a profound impact on the knowledge generated, leaving politics in autocratic contexts and the global south "under-theorized" (Wilson and Knutsen 2022, 1037). Given the dominance of larger, wealthier, more populous countries, for example, in the study of African politics (Briggs 2017), case selection is likely driven by our collective participation in incentive structures, not least publishing incentive structures.

The broader implications of this collective, rather than individual, bias relate to the scope of generalizations. As Briggs (2017, 566) explains "[l]f we fail to study certain kinds of [sub-Saharan] African countries, then we have no business claiming general knowledge of African politics" (see also Wilson and Knutsen 2022). We also have no business suggesting that our findings from a well-studied case generalize the entirety of a continent. Instead, collective efforts must be made to diversify which cases are studied and incentivize such diversification (Briggs 2017, 570).

Altering incentive structures to diversify the cases studied aligns with the goal of facilitating research on cases where prior knowledge and intuitions regarding the precise manifestation of the dependent variable might be hard to determine fieldwork (Gisselquist's argument). We should not be devaluing such work because it either relies on informed intuition and/or incomplete information at the design stage. Diversifying cases is an important endeavor for knowledge production. Hence, we should be enabling researchers to acknowledge the role of informed intuition, harness their prior experience and expertise, and document its role transparently with intuitive and reflexive openness as the goals (elaborated below). Doing so might help level the playing field between researchers in the global north, who might begin graduate training more likely lacking substantive knowledge, experience, and expertise in the research context that they might wish to study, and researchers in the global south who begin graduate training replete with necessary experience and expertise to inform their intuitions in beginning their research careers.

There might be a problem within existing incentive structures: we might find it difficult, be short of space, or feel this articulation infused with a sense of shame that we seek to hide. But, so long as informed intuition and convenience are paired with a theoretical logic and the role of such informed intuitions is exposed and acknowledged, then we are doing our job of transparently and honestly accounting for research choices for readers to evaluate. Ultimately, a bigger problem than post hoc justification of case selection is the untransparent, unaccounted, and unacknowledged use of informed

^{13.} In recent decades, political science has moved somewhat away from viewing case selection on the dependent variable as such a "sin" (Seawright and Gerring 2008; Small 2009), as Geddes (1990) originally suggested.

intuition (Kump 2022).

We have a responsibility to account more honestly for how we ended up making the choices we did. We also have a responsibility to expose the mess (Cheng 2018), or at least the contingencies of the process, to our readers and peers (to inform their understanding more fully). As importantly, we have a responsibility to write more openly and honestly for graduate students. The status quo leaves them in a state of "reality-shock" when completing research for the first time (Delamont and Atkinson 2001, 88), as if they are doing things wrong when their research does not go as smoothly as published authors indicated.

From Informed Intuition to Intuitive Openness

Throughout this article, I have referenced the idea of reflexive openness in acknowledging the role of informed intuition. As a practice, reflexive openness encourages researchers to self-assess and account for their assumptions, positionality, and power in (co-)producing knowledge (see also footnote 4). Here, the goal is not only to be reflexive through the research process but to expose one's research choices and practices of reflexivity more generally to readers in published work. This article aligns with important discussions of reflexive openness. It also adds a layer to such discussions by emphasizing that openness should pertain not only to the ethics of engaging with participants but also to the entirety of the research process itself. Hence, I pivot from reflexive openness to intuitive openness.

This pivot is not a critique of reflexive openness. Such discussions have rightly emphasized the need for (1) more reflexivity and positionality (Sædirgo and Glas 2020; Thomson 2021), and (2) the need for more openness about these dimensions in writing up (Pachirat 2015; MacLean et al. 2019; Jacobs et al. 2021). These discussions position reflexivity as broadly applicable – regardless of methodology, topic, epistemic position, etc. – and as challenging the often but mistaken equivalence of reflexivity with "introducing bias where it previously did not exist" (Bond 2018; Alejandro 2021). Whether for qualitative or quantitative scholars, reflexivity is a mechanism of self-assessment (Thomson 2021, 530) that helps us monitor, recognize, and counter "pre-existing bias" to make deeper, broader, and more rigorous inferences (Bond 2018, 45), and enables a more traceable, accountable, and rigorous approach for readers. In turn, "reflexive openness" has rightly emerged as a norm of practice for ethical and rigorous research, regardless of methodology (MacLean et al. 2019). This norm positioned participants as the primary objective of ethical reflection, but where rigor and peer evaluation of research (whether by book/journal reviewers or readers) are also improved by such practices and commitments (MacLean et al. 2019).

But, these discussions of reflexive openness and the subsequent literature they have inspired (Thaler 2021; Shesterinina 2021; Kapiszewski and Wood 2022), remain rooted in ethical discussions concerning commitments to human participants, where rigor stems from ethical commitments to reflexive openness. My point is not to dispute such a grounding; ethics is the foremost concern of all social and political researchers (or should be). But, the need for reflexive openness does not end with engagement with human participants, nor the need to retain scaffolding of data production and analysis. We also need to include ideas of intuitive openness by integrating concerns of honesty and integrity. Ethical concerns are important and integral but are only one dimension of our responsibility

to be more open and honest in accounting for and reporting research choices (i.e., intuitive openness).

A commitment to reflexive openness begins with the research process itself. Here, reflexive openness should also encompass intuitive openness by exposing the contingencies, uncertainties, and iterations of knowledge (co-)production (Thomson 2021). Namely, intuitive openness (within the umbrella of reflexive openness) directly includes self-assessing and reporting the role of informed intuitions during the research process.

Political scientists need the prompt and opportunity to acknowledge, reflexively and openly, the role of informed intuition in making research choices. More broadly, the discipline needs an incentive structure that not only permits acknowledging the role of informed intuition but champions intuitive openness. Without such an opportunity, too much of what is behind the research process remains in the shadows: unaccounted for and undocumented, unable to help future researchers make their own research choices, and unable to help readers understand the basis on which work was conducted, and evaluate the rigor and integrity of research accordingly.

I am not arguing that informed intuition becomes a logic to justify research choices (since we have ample extant literature on case selection, for example). But we have to permit greater intuitive openness to allow researchers to expose more of the uncertainties, contingencies, and behind-thescenes guiding logics, including acknowledging the role of informed intuition. These dynamics are often in play across the research process but formally and publicly, at least in publications, remain under-acknowledged, under-accounted for, and unreported. Exposing such logics, alongside research choices, helps other researchers. There is nothing less scientific in learning abductively as you 'go along'. Indeed, abductive logics – engaging with and challenging informed intuitions and assumptions (including one's own) – can be fruitful for the research process and further our contribution to knowledge. Reflexively and openly documenting these processes is both useful for researchers to know how others learned as they went along (Htun and Jensenius 2021), and for evaluating the fuller and more honest picture of a research project, in terms of rigor and integrity.

The status quo is letting down researchers by maintaining existing incentive structures that privilege one mode of doing research over another and underplay one's expertise, experience, and informed intuitions vis-à-vis a case or set of cases. Moreover, such incentive structures privilege technique and approach over contribution to knowledge (Bateman and Teele 2020). If we actually believe in a problem-guided approach to research, we have to allow researchers to make choices that are freer from such incentive structures to enable them actually to align research design with the research problem.

A parallel, related, but often contrasting discussion within transparency debates in political science concerns the growth of pre-registration/pre-analysis plans ("PAPs"), which publicly register researchers' research designs, particularly hypotheses and analysis plans (Ofosu and Posner 2023). Such plans are more common in experimental methods but have also been discussed by researchers working with and generating qualitative data (Kern and Gleditsch 2017; Jacobs et al. 2021). PAPs encourage prior reporting of hypotheses to discourage "HARKing" and, while aligning more with deductive approaches to research, also encourage researchers to differentiate more clearly between whether their research is actually deductive or not (Ofosu and Posner 2023). In turn, a small but growing number (again primarily experimental research) of article appendices refer to their PAPs not only in reporting terms but in terms of how, why, and where the research deviated from the PAP,

and a smaller but more impressive number document this in the body of their article (Laterzo 2024; Hewitt et al. 2024; Pengl, Ræssler, and Rueda 2022). While PAPs have many positives in relation to transparency, they also largely reproduce the status quo. For example, they provide mechanisms to discourage and disincentivize "HARKing" but still incentivize an almost one-size-fits-all approach to research that reinforces the confirmation basis that favors deductive approaches (Laitin 2013).

Hence, in approaching intuitive openness and pushing beyond discussions of PAPSs and reflexive openness, we must lay out a way forward that retains the same commitment to honesty and openness. Equally, such actions ought to be (1) (more) inclusive with regards to what we are open about and (2) (more) inclusive with regards to the intended audience. First, we need to foster more explicit acknowledgment of the role of informed intuitions within the research process, as well as the uncertainty, contingency, and learning process of the research process, pushing beyond reflexive openness' primary emphasis on ethics and PAPs' emphasis on hypothesis registration. Second, we need to broaden the audience, be more open-minded as to what proposals look like, and be less conservative as to the status quo they maintain and/or reproduce. In particular, we need to push beyond the fissures within current suggestions as to what openness, rigor, and honesty look like, that propose either one-size-fits-all approaches or are content with discussions occurring within specific sub-fields, methods, or approaches.

What Does Intuitive Openness Look Like in Practice?

In lieu of a conclusion, I provide some suggestions of what engaging in intuitive openness and acknowledging the role of intuition might look like in practice. These suggestions, matching the article's intervention and intention, are not intended to delineate or restrict where informed intuition could appear in the research process, given that approaches to research are varied. Instead, these suggestions provide options for acknowledging and accounting for the role of informed intuition, regardless of a researcher's methodology, ontology, or epistemology.

First, I offer suggestions in the form of prompt questions according to the different stages of the research. For example, when reflecting on research design vs research execution, those testing hypotheses, whether when using an experiment, survey data, or process tracing, among other approaches, could report the origin, inspiration, motivation, and trajectory of their hypotheses. Such an approach would not look radically different from how PAPs encourage reporting of deviation from hypotheses but would be supplemented by a more candid or frank discussion as to the uncertainties and contingencies of the process. For those conducting more inductive or abductive work, e.g., qualitative interviews, ethnography, and machine learning, these suggestions for intuitive openness do not require pre-registration of an uncertain and contingent process. Rather, the prompt questions for intuitive openness are designed to encourage reflection on (a) these contingencies and uncertainties, (b) the trajectory of the process, and (c) their assumptions, hunches, or expectations that guided the process, as well as how these developed across the research. In turn, such an approach does not require delineating a more finite or "formal beginning" to the iterative process, as PAPs often do (Piñeiro and Rosenblatt 2016), since the emphasis is more on retrospective reflection than pre-emptive speculation.

Second, I segment between maximalist and minimalist approaches to intuitive openness (Table 1).

By maximalist, I mean a whole-scale commitment to engaging in an intuitively open practice of tracing the reader through the research process in a way that exposes the role of informed intuition and the uncertainties and contingencies of the research process. ¹⁴ A more practical version of a maximalist approach would resemble writing up in a way that reflects and exposes the intuitively open stages of the research process. Examples of this practice could entail discussing and unpacking how informed intuition entered and played a role in the research process when (1) selecting cases or (2) by unpacking the recursive logic within which assumptions and expectations arrive in a project, are acknowledged, affect choices, and are contested, dismissed, challenged, and/or refined. We could be explicit about our journey to the puzzle, the steps of its iterative development (Cheng 2018), and how we came to select and work on these cases, as well as how such work might be bolstered by our prior and ongoing expertise and experiences. Such articulations might note the contingency of such choices and preferences, such as wanting to avoid an "active warzone" in selecting a case (Cheng 2018), or the period and process through which such experiences, insights, and connections were developed that made such research possible (see Lake 2022).

More concretely, examples of discussing informed intuition in a maximalist approach could resemble a critical reflection on instances in the research process of revelation, revolution, and resolution:

- Eureka moments (e.g., moments of revelation via inspiration/realization and their consequences),
- Blind spot moments (e.g., moments of revelation that shone a light on things you overlooked/could not see, and their consequences/resolution), and
- Devil's advocate moments (e.g., moments of being challenged, scepticism, considering alternatives, and their consequences/resolution).

For example, in Knott (2022), I note how I had to reconcile a blind spot in my misunderstanding of and assumptions about the nature of ethnic Russian identity, the force of pro-Russian nationalism, and engagement in Russian citizenship in Crimea, prior to Russian annexation and occupation in 2014. I engage the notion of intuitive openness by first documenting what this blind spot prevented me from seeing and understanding (that the meaning and content of Russian identity were contested and fractured). Second, I document where this blind spot was coming from (existing literature, lack of experience in the field), its implications (asking the wrong questions, asking leading questions, and making misguided and ill-informed assumptions), and how I navigated this blind spot (learning to listen more, be more open, and allowing my assumptions to be challenged). Third, I document how navigating this blind spot enabled me to unpack and relay a more nuanced understanding of these issues and use this understanding in a more theoretically rich way (see methodological appendix, Knott 2022).

Not all scholars will see even this maximalist operationalization as practicable, meaningful, or possible within existing constraints – whether word counts or incentive structures (Yom 2018). Furthermore, I am not suggesting that junior scholars commit to a norm shift that might disbenefit them.

In turn, minimalist examples are aimed at being practicable for all scholars, regardless of approach, methods, or space constraints (Table 1). Prompt questions within the minimalist approach offer the opportunity to delve efficiently into and expose the role of informed intuition behind the research choices without committing – or needing to commit – whole-scale. Examples might include short

^{14.} The most maximalist approach would entail reconfiguring how we write entirely; for example, by ordering the write-up according to the research process, and including a more puzzling and recursive engagement between empirics and theory.

notes, from 1-2 sentences to half a paragraph, which reflect on:

- The moments of contingency or uncertainty (e.g., what unexpected things happened and their consequences on the research/project/findings/design),
- The moments of change (e.g., when research design pivoted away from pre-registration plans and why),
- The evolution and performance of hypotheses, and
- What was learned during the research process, and how were ideas and arguments refined during the research process?

Even identifying that hypotheses were developed at different stages of the research, or were refined from how they were originally conceived, would go some way towards intuitive openness and help be franker (and more honest) about the messier way in which deductive work does or can unfold.

However, neither of the examples offered here nor my categorization of maximalist vs minimalist and different research stages should be taken as exhaustive or restrictive. Just as some research stages may be more important and more redundant for some researchers than others, so might suggestions for intuitive openness in relation to these research stages. Instead, these prompt questions are intended as an inspiration or provocation for researchers to tailor to their own specific needs. After all, a researcher might have a more intuitive sense of what informed intuition and practicing informed intuition means for them, and they should have free reign to engage with that accordingly for the reader. Indeed, this provocation is only the first stage. Once more researchers across different approaches demonstrate intuitive openness, we will have a fuller picture and grasp of its scope and usefulness.

Equally, the space we devote to such endeavors differs depending on the topic we are writing about, the method we use, and the format (e.g., journal article or monograph). Regardless, methodological appendices are becoming more normalized for documenting further methodological choices, explaining more about methods and data used, or documenting reflexive engagement or openness (for monograph examples, see Cheng 2018; for journal examples, see Gade 2020; Barnes 2022). These appendices, as well as the body of journal articles/monographs, can also be used to engage in intuitive openness. Some of these examples already implicitly align with an approach of intuitive openness. My call, therefore, is to go further with such endeavors, to see as meaningful and important discussions of intuitive openness (as well as reflexive openness more broadly), and to celebrate those who commit to more intuitive openness as adhering to the important standard of rigor and honesty.

These suggestions on how to practice intuitive openness are a starting point for prompting broader discussion as to the role of informed intuition in our research decisions and experience of research. I do not conceive of informed intuition as confined to the article's two emphases on the logics of research and case selection. Instead, I hope this argument provokes others to explore the role of informed intuitions in other aspects beyond the article's scope, such as in data analysis and collaboration.

Table 1: Examples of Intuitive Openness

Research Stage	Dimensions of Stage	Prompt Questions by Research Stage
Designing the Research	Hypotheses (where relevant)	 Where did the hypotheses come from? (e.g., prior insights in cases, existing literature, informal hunches) Why these hypotheses?
	Assumptions / expectations / hunches (where relevant)	 Did some hypotheses get dropped or added? Why? What were your expectations/assumptions/hunches in designing the research and prior to collecting data? Where did these originate from? How did these expectations/assumptions/hunches affect
	Case Selection	the choices made in research design? Which choices did they affect? • What was your prior expertise or connection vis-à-vis
		these cases? What was the role of such expertise in shaping case selection?What did you think you knew about these cases prior to
	Research process	 collecting data? Did some cases require building more expertise vs. others? What did the order and sequencing of the research process look like?
		 ♦ How and why did the research deviate, develop, and change from how it was designed? (e.g., between pre- registration plans and write-up) ♦ What came first? What proceeded what and why?
Doing the Research	Data Collection Data Analysis Producing Findings	 How did the data collection or data analysis procedures deviate from the research design plan/intentions? Were there any poignant or relevant examples of uncer-
	Troubeing Findings	tainty or contingency in the research process? How did you navigate these? How did the project evolve as a result? Were there any imperfections in the plan that needed to be ironed out when doing the research? What did you learn as a consequence?
	Hypotheses / assumptions/ hunches vs findings	 Where did the stated hypotheses work or break down? What did you learn during the research process? What did you learn that was contrary to your expectations, assumptions, or hypotheses?
		 What emerged that was surprising versus your prior assumptions? How do your findings differ from your expecta-
		tions/assumptions? What did you learn as a result of this deviation from, or alignment with, your expectations/assumptions? Eureka moments: what was the moment of revelation?
		What did it entail? What effect did it have on the research? Blind spot moments: how did you identify them? How did you navigate and resolve them? What changes did they result in – professionally, personally, and in terms of research design?
		Obevil's advocate moments (with yourself or peers): What feedback was received? How was it mediated? How did you act upon it as a result? What did you change, or how
Writing-Up the Research	How to address informed intuition in writing-up	 did you alter your path as a result? Minimalist approach: A sentence here or there noting the role of informed intuition and learning, e.g., by answering some of the questions above Maximalist approach: An extended discussion answering
		these questions (prioritizing those that are most relevant) These questions could variously be answered in the body of the publication or in methodological appendices

NB: ♦ Denotes a potentially relevant question to answer within a minimalist approach.

 $[\]Diamond$ Denotes more of a potential question/prompt for a maximalist approach, where relevant.

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