Experimental Wars: 
Learning and Complexity in Counterinsurgency

by

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Abstract

How do policymakers learn to solve complex policy problems? I offer an explanation based on a plurality of policy learning processes. Policymakers learn in multiple ways, thereby grappling with the complexity of their environment. I identify three methods of learning. Learning by paradigm deploys systematic assumptions. Learning by doing employs ad-hoc experiments. Learning by simulation replicates others thoughts and intentions. The three vary in their aptitude to dealing with complexity: learning by doing is most so, and by paradigm least, with simulation falling in between. The most effective approach to complexity will involve combining methods. I apply these to learning in counterinsurgency. I take as cases manuals: documents reflecting what their authors learned. I focus on three such cases. The Hessian officer Johann Ewald served the British for eight years, in the American Revolutionary War. He subsequently wrote of the earliest manuals of irregular war in the European tradition. C. E. Callwell, a prominent Victorian military officer, was the author of the most influential British small wars manual of his generation. He served in the Boer war, among many others. David Galula, a French officer who served in East Asia and in Algeria, is perhaps the most influential counterinsurgency theorist-practitioner on record. I trace their learning processes, as documented in their autobiographical writings, explaining the learning outcomes documented in their manuals. I find those who learn in multiple ways are most adaptive to complexity. Galula was most effective at doing so, and Callwell least so, with Ewald falling in between.
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Chapter 1
The Problem of Learning

In 2006, following his return from the war in Iraq, Lieutenant General David Petraeus published a brief article in the journal Military Review, on what he had learned about counterinsurgency. While his advice is thoughtful, practical, and clear, it is also strikingly unusual in the context of irregular war. Counterinsurgents, he argues, should aim at “increasing the number of stakeholders”—above and distinct from the canonical prescription to win hearts and minds. They should “Help build institutions, not just units.” Most succinctly, “Money is ammunition” (Petraeus 2006, p.3). The approach is strange insofar as his emphasis on economic and managerial rationality lacks intuitive connection to war fighting. Indeed, it has little precedent in counterinsurgency theory. Petraeus appears to have learned a new and perhaps surprising way of thinking about a very old kind of warfare.

He is not alone historically in doing so. Other scholar-practitioners of counterinsurgency have learned to face the distinctly complex challenges of irregular wars in a strikingly wide range of ways, and with quite varied degrees of intellectual success or failure. In International Relations (IR), most research to date on insurgency has focused on explaining conflict outcomes. However, policymakers have learned and re-learned how to conduct it over and over

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1 Petraeus had commanded the 101st Airborne during the 2003 invasion, and then served in several leadership positions in Iraq (Petraeus 2006, 12). He returned later to oversee the war in its entirety. The article went on to exert significant influence over the US Army counterinsurgency manual Petraeus co-authored (U.S. Army and Marine Corps 2007).

2 Much of this previous strategic and tactical theory was as novel or strange when it was written as Petraeus’s is today. Petraeus’s officer-intellectual forbears learned myriad approaches, ranging from carefully targeting hearts and minds, to employing trenchant, expansive, and even arbitrary violence. Counterinsurgency is often referred to as a single strategic and tactical package—a fixed approach to asymmetric conflict. However, counterinsurgency has a history, over which it has changed significantly. I summarize this variety of accounts below.

again, and some have succeeded a great deal more than others in so doing. These varied learning outcomes merit explanation in and of themselves.

How, then, do policymakers learn in a complex world? The question is deceptively simple: plainly, policymakers do learn to make policy that confronts complex circumstances, well or badly, on a regular basis. They often do so under conditions of duress, with limited information about multifaceted and changeable policy problems. However, despite decades of research on policy learning at both the individual and institutional levels, International Relations scholars have remarkably little consensus as to how individual policymakers adapt or acclimate themselves to the problems they face. This is especially so as regards complex problems: those that have nonlinear, unpredictable properties, involving phenomena that are difficult or impossible to anticipate.

Learning merits investigation for several reasons. What policymakers learn shapes the policies they prescribe. In irregular warfare, it therefore presumably shapes military doctrine, and by extension conduct in the field—and with that, eventual military outcomes. Success or failure, and costs denominated in blood and treasure alike, are at stake. However, in contrast to our understandings of many substantive features of international security, the learning processes that give rise to security policy remain strikingly contested and underspecified. The area seems doubly fruitful for further inquiry because learning as such presumably shares many basic traits across issue areas. An account of learning in security policy should thus be useful in explaining other areas of foreign policy as well. Learning nonetheless seems especially important in the context of irregular warfare, since the intellectual history of counterinsurgency itself remains largely, indeed strikingly, unwritten.

Focusing empirically on counterinsurgency, this study investigates processes of policy learning as they are brought to bear on complex problems. My central contention will be that dealing with complexity calls for distinctive learning styles or methods. Policymakers, I will
show, learn in multiple ways. Some such methods or styles of learning are better adapted to complexity than others. Those who learn in more complex ways, and especially those who learn in multiple ways, will tend to learn more, better grappling with the distinctive challenges and intricacies of complexity.

I characterize such problems as complex in the technical sense, associated with complexity theory. Complexity theory (Prigogine and Stengers 1984; Holland 1992) describes systems comprising many and varied interacting parts, prone to nonlinear or unpredictable processes of change. Their systemic properties are often described as emergent: they are neither predictable not explainable with reference to their individual constituent components. They may also be adaptive, transforming in response to their environments. Many important policy problems, ranging from climate change (Homer-Dixon 1991; Hoffmann 2003) to terrorism (Bousquet 2012), can be understood by deploying complexity theory as a heuristic. Such phenomena exhibit many traits of complexity, including adaptability and unpredictability. Because they are prone to unpredictable transformations, they confront policy in new ways in each instance. I deploy complexity as a condition or constraint on learning: the distinctive features of complexity make complex problems more difficult matters about which to learn. An emphasis on learning about complexity is important, since many of the most pressing contemporary policy problems are complex: not just irregular warfare (Bousquet 2008), but also matters as wide ranging as healthcare (Zimmerman, Lindberg, and Plsek 1998) and climate change (Hoffmann 2005). Learning to address such problems presumably means understanding how learning about complexity works.

To explain how policymakers learn to contend with such complexity, I develop a pluralist theory of learning. Policymakers deploy multiple methods of learning, some more adaptable to complexity than others. They are more so again when deployed in combination. I identify three such methods: learning by paradigm, by doing, and by simulation. Learning by paradigm is top down, emphasizing existing assumptions, in the form of psychological schemata. Learning by doing is bottom up, emphasizing ad hoc experimentation, trial and error, and bricolage. Learning by simulation is interpersonal, emphasizing learning to understand, through empathy, the motivations and intentions of others. These approaches to learning vary in their ability to manage complexity—learning by doing is most complex, learning by paradigm least, with learning by
simulation falling in between. They adapt most effectively to complexity when deployed in combination.

This account of complex foreign policy learning is novel. While extant research on learning has long distinguished simple and complex variants (Nye 1987; Levy 1994; Stein 1996), it has not always developed the concept of complexity in a rigorous or technical way. I treat nonlinear, unpredictable complexity as a distinctive feature of policy problems, with which learners must contend. Policymakers learn to deal with it to the extent that their tools of learning are adaptive to nonlinear, emergent problems.

I find theoretical foundations for a complex, pluralist theory of learning in American philosophical pragmatism. I draw from Dewey and James an account of learning as both purposive—that is, geared toward problem solving—and basically pluralistic, in the sense that no single theory or method explains how learning occurs. I find a basis for learning outcomes in a Deweyan conception of “experience”: lived, practical development of knowledge that is useful and communally shared. This view of learning grounds what is learned not in a correspondence theory of truth, but instead in consensus: one learns from experience, and justifies the resulting claims by securing the agreement of one’s peers. By linking these three literatures—on learning, complexity, and pragmatism—we can make better sense of how individual policymakers innovate novel solutions to new or unanticipated policy problems.

To demonstrate this empirically, I investigate learning in the context of an especially complex, acute, and difficult policy problem: counterinsurgency. As I argue below, insurgencies exhibit many traits associated with complexity. They involve multiple, nested social structures that behave differently at the aggregate level than individually. They adapt, habitually presenting themselves to policymakers in new and unanticipated ways. Thus, as David Kilcullen (2010, 2)

7 Theoretical linkages between complexity and pragmatism have been rare. For IR and pragmatism, see Deibert (1997), Friedrichs and Kratochwil (2009), Franke and Weber (2012), and additional sources cited below. Complexity and pragmatism have little shared intellectual history. Exceptionally, Sanderson (2000; 2006; 2009) has advocated their combined use in public policy analysis, in the context of recent British public policy.

has noted, “at heart, counterinsurgency is an adaptation battle: a struggle to rapidly develop new techniques and apply them in a fast-moving, high-threat environment, bringing them to bear before the enemy can evolve in response, and rapidly changing them as the environment shifts.” In short, counterinsurgency is a struggle to compete with the dynamic and unpredictable adaptability of the insurgent opponent. In keeping with this uncertainty, counterinsurgents have drawn widely varied lessons from their experiences of irregular war. Counterinsurgency thus provides a strong context in which to explain how differing learning methods permit learners to adapt well or badly to circumstances, producing varied learning outcomes. Historically, it has been conducted in a wide range of ways, providing significant and indeed puzzling variation to be investigated.

I take as cases counterinsurgency manuals: records of what their authors learned about counterinsurgency. I pair these with the personal writings of the authors, which document the processes through which learning occurred. I assess three such cases. The first is that of Johann Ewald, a Hessian mercenary who served the British during the American Revolutionary War. The second is that of C. E. Callwell, a British imperial officer who (among many other conflicts) served in the Boer War. The third is that of David Galula, a French officer who served in Algeria. All three men wrote detailed personal records of their service, and went on to write manuals for the conduct of asymmetric war. Briefly, I find that Galula learned the most, and in the most complex ways, learning expansively by doing, and in other ways as well. Callwell learned the least, almost exclusively by paradigm. Ewald represents a middle-ground case: he learned with moderate effectiveness in more than one way, but nonetheless reached limited conclusions about how best to conduct counterinsurgency.

This chapter proceeds as follows. First, I critically review the theoretical problem of learning. I show that the conventional distinction between simple and complex learning is insufficient in its attention to complexity properly understood. Second, I sketch an account of pluralist learning under conditions of complexity, briefly setting out three models of learning (to which I will return at length in the following chapter). Third, I show how these can be used to

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9 Prominent manuals of counterinsurgency, including cognate forms of colonial warfare, include Ewald (1991; 2010), Emmerich (1789), Lyautey (1900), Callwell (1906), US Marine Corps (2005), Trinquier (1964), Galula (1964), Thompson (1966), and the current US Army Field Manual 3-24 (2007), co-written by David Petraeus (1986; 2006) and team of authors. Historically counterinsurgent strategies and tactics have varied quite widely. On the history of such manuals, see Mumford and Reis (2013).
explain varied learning outcomes among counterinsurgents. Fourth, and finally, I discuss how the dissertation proceeds empirically, and summarize findings.

1 Revisiting the Minefield

Learning presents an important theoretical challenge for IR. Policymaking necessarily involves what Heclo (1974, 305) called “puzzling”: that is, the process of adaptation or cognitive change by which policy innovation occurs. Governments, bureaucracies, and their individual agents must determine what means are best able to achieve specific ends. Indeed, while learning has long been the subject of its own literature, it is also an implicit assumption of IR theory as such. For example, as Stein (1996, 109) notes, “Almost all theories of general deterrence assume, implicitly rather than explicitly, a process of learning.” Indeed, any theory positing structural or systemic pressures that influence actor behavior, must explain (tacitly or overtly) how actors learn to behave accordingly. In Blyth’s (2007, 774) words, “Structures do not come with an instruction sheet, and as a consequence, agents do not monotonically decode the material world around them and act uniformly.”

So construed, learning should be a core concern of the discipline. Moreover, it should be especially important as regards complex policy problems, as these present themselves in nonlinear, unpredictable ways, and thus offer less clear structural constraints. In practice however, progress on learning has been curtailed by theoretical and definitional difficulties, such that Levy (1994) termed the subject a “conceptual minefield.”

Such conceptual difficulties begin with definitions. Heclo (1974, 305) defined learning as “a relatively enduring alteration in behavior that results from experience.” This basic conception of learning as a cognitive or psychological influence on policy formation has persisted. In an influential review article, Levy (1994, 283) defined learning simply as “change in beliefs (or the degree of confidence in one’s beliefs) or the development of new beliefs, skills, or procedures as

10 Learning thus has an implied role in most of IR’s canonical “grand” theories. Early liberal IR theories posit states learning to avoid conflict through collective security and economic interdependence (Angell 1910). Inverting this, Carr (1939) exhorts leaders to learn the lessons of collective security’s failure during the interwar period. Waltz (1979) offers not one, but two structural learning processes: socialization and competition. Neoliberalism is predicated on the possibility of learning from iterated rational interactions (Keohane 1984; Axelrod 1984). If, as for constructivists, “anarchy is what states make of it” (Wendt 1992), then the cognitive processes of change underlying state behavior might be understood in part as a process of learning from interactions with one’s peers. Jervis’s seminal work on misperception (1976) implies an attempt to theorize constraints on learning.

11 Waltz (1997, 915) echoes this point, noting that international structure does not directly determine states’ foreign policies: states “are free to do any fool thing they care to, but they are likely to be rewarded for behavior that is responsive to structural pressures and punished for behavior that is not.”
a result of the observation and interpretation of experience.”

However, while such definitions offer basic points of entry, they tell us relatively little about who precisely learns, how learning occurs, how it may be distinguished from other cognitive change, or how it can be investigated empirically.

In practice, the IR-theoretic literature on learning peaked in the early 1990s. Canonical accounts from the period disagree on several conceptual matters, and the resulting theoretical ambiguity has largely precluded progress since. For example, on some accounts learning is strictly individual-level, while on others it is irreducibly social. For Levy (1994, 287–89), learning is a necessarily individual phenomenon. Others (Haas 1991; Knopf 2003) understand learning as occurring in groups, either collectively or interactively. However, it is not at all clear that individuals and groups adapt in the same way. Differing tools may well be required to study them. Similarly, there is no consensus on standards or measures of learning. While Levy (1994, 283) defines learning simply as “change of beliefs... or the development of new beliefs,” others call for standards of learning success. Stein (1994, 170) stipulates that “some explicit criteria” must circumscribe what cognitive change counts as learning. Similarly, Breslauer and Tetlock (1991b, 6) distinguish between knowing and believing, where the former must be “valid, or true, or justified, or realistic.” Absent standards, the category of learning is redundant to cognitive change as such, and learners lack meaningful standards for knowledge. The usual objection to standards is that no consensus on them has been forthcoming, and that standards imposed without consensus risk generating bias (Levy 1994, 292–93).

12 See also for example definitions in Haas (1991, 23) and Stein (1996, 109).

13 Ironically, a consequence of Levy’s insistence on individual-level learning, coupled with the conceptual strictures he introduced, may have been to encourage researchers to work in other areas. Most studies of learning in the twenty years since have focused on state, bureaucratic, or organizational learning instead (Reiter 1996; Farkas 1998; Bennett 1999; Leng 2000; Brown, Kenney, and Zarkin 2006; Kenney 2007). Such accounts often emphasize rational analytical frameworks or organizational dynamics over the mental mechanisms of learning itself.

14 Some have attempted to link the two—according to Heclo (1974, 305), “Social learning is created only by individuals, but alone and in interaction these individuals acquire and produce collective action.”

15 Cognate concepts to learning have received a great deal of attention as well. Some research on learning has focused more generally on the “lessons of history,” or on the use of historical analogies, rather than on how specifically learning occurs (May 1975; Jervis 1976; Neustadt and May 1988; Khong 1992). However, lessons of history, however conceived, must be learned in some defined way—it is thus learning as a process that is at issue. Elsewhere, much recent work has focused not on learning as such, but instead on diffusion, which tracks the transfer of ideas from one individual, policy community, or state, to others. For a review, see Dobbin, et al (2007, 460–62). For an application in security studies, see Horowitz (2010). However, what is at work in the development of the approaches to counterinsurgency in this study is not the transfer or spread of ideas so much as the development of them. Theorist-practitioners like Callwell or Galula devised new ways to approach an existing policy problem—sometimes borrowing ideas from other contexts, but nonetheless developing approaches that are, taken in toto,
difficulties do not reflect a lack of empirical research—rich and varied studies have been conducted on learning.\textsuperscript{16} Nor has the problem been a dearth of theory: theoretical frameworks have proliferated, with little agreement about how to resolve inconsistencies between them.\textsuperscript{17}

In this study, I define learning as “individual cognitive change that meets pragmatic standards for knowledge acquisition.”\textsuperscript{18} I thus follow Levy in treating learning as an individual phenomenon—knowledge and its acquisition are primarily properties of individuals, rather than the organizations comprising them. Ideational change at the institutional, state, or other group level, while important, represents a quite different phenomenon, to be understood on distinct terms. However, I follow Stein and others in stipulating a need for standards. Below, I define these standards pragmatically. The basic form of a pragmatic standard is twofold. First, learning must attain communal assent: a learner’s peers must recognize acquired knowledge as true or genuine. Second, knowledge must facilitate action—that is, it must aid in making policy: it must be useful.\textsuperscript{19}

Scholars have introduced subcategories of learning, commonly identifying “simple” and “complex” variants. Here again however, consensus on definitions has been lacking. Simple learning generally involves adapting means in response to new information. Core cognitive frameworks, goals, and identities remain the same (Nye 1987, 380; Levy 1994, 286; Stein 1994, 171). However, scholars are less consistent in defining complex learning. Some accounts stipulate revising ends as well as means, or reordering preferences (Nye 1987, 380; Haas 1991). Others focus on the structural complexity of the acquired knowledge itself.\textsuperscript{20} Tetlock’s summary novel. Thus, this study concerns itself not with learning as diffusion, but with learning as a form of innovation: a means of generating novel ideas and policy prescriptions.


\textsuperscript{17} For related work on learning in public policy analysis, see for example Heclo (1974), Bennett and Howlett (1992), May (1992), Hall (1993), Carstensen (2011), and a review by Grin and Loeber (2006).

\textsuperscript{18} An emphasis on individual or first image explanation is no longer as strange as it once was. While accounts of foreign policy learning have long emphasized individual policymakers (Levy 1994; Stein 1994), other areas of foreign policy analysis have recently begun to emphasize policy elites in ways once less common, ranging from accounts of US Presidential decision-making (DiCicco 2011; Nye 2013) and personalities (Gallagher and Allen 2013), to leader impact on territorial disputes (Chiozza and Choi 2003), and the role of emotions (Mercer 2006). For general arguments in favor of first image analysis, see Byman and Pollack (2001) and Hermann et al (2001).

\textsuperscript{19} Importantly, learning alone is not sufficient for policy success. An actor may learn but fail to apply what they learn, or may apply what they learn and still fail to attain their goals. Indeed, their goals may be unattainable for unforeseen or unrelated contextual reasons. Opposed actors may learn as well attaining ways to prevent them policymakers from attaining their goals.

\textsuperscript{20} Indeed, Tetlock (1991, 32–35) notes many scholars define learning itself simply as possession of increasingly complex ideas. However, this presents immediate problems: “Chamberlain would probably enjoy higher historical esteem today if had held a less evaluatively complex view of Hitler’s intentions in 1938” (Tetlock 1991, 35).
of “cognitive structural” approaches to learning alone notes three different kinds of complexity in the literature: “cognitive complexity” understood as the number of “logically distinct arguments” learned, “evaluative complexity” or the degree of consistency among them, and “cognitive integration” or mobilization of “complex rules” to manage these. At no point in these distinctions is complexity itself rigorously defined. Further muddying the waters, some scholars (Tetlock 1991, 45–47; Johnston 1996; Stein 1996, 109–10) speak instead of an analogous distinction between adaptation (simple) and learning (complex). The two dyads are related, but sometimes somewhat distinct. Haas (1991, 23–24, 33–34) distinguishes learning from simple adaptation as involving revisions not just of means and ends, but also of identities, since ends are derived from an actor’s sense of what is suitable or appropriate for it.

In sum, we have in the issue of learning complexity an additional minefield—one that has remained largely unswept. Clarifying these ambiguities is a precondition for developing a viable account of foreign policy learning as such. Simple revisions of means to match ends can be explained straightforwardly in structural or evolutionary terms. The study of learning is motivated by the need to explain the more advanced adaptations and more abstruse cognitive realignments that respond to a complex world. Uncomplex adaptations are not puzzling: it is precisely learning about complexity that motivates a distinct area of study.

IR theories of complex learning have tended to be ambiguous in two specific ways. First, they have not fully taken on the emergent, non-linear character of complexity. Second, they have been ambiguous as to where the complexity in question is located: in the mental apparatus of the learner, or in the world about which he or she learns. The first ambiguity concerns the nature of complexity. The accounts above tend to define complexity in relatively linear ways, in terms of the accumulation of ideas, reducing complexity to the sum of its (admittedly many) parts. So defined however, the whole is merely complicated, not complex in the technical sense, since it tells us little about the distinctive and irreducible properties taken on by the complex whole. Complexity in the technical sense is nonlinear, and unpredictable. It describes systems in the natural or social world that have emergent properties not traceable or reducible to their constituent parts (Prigogine and Stengers 1984; Holland 1992).\(^\text{21}\) The second ambiguity concerns

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\(^{21}\) In extant IR learning scholarship, Haas’s (1991) account comes closest to taking complexity seriously. Adler’s (1991) work on cognitive evolution is its principle intellectual descendent. However, this body of work has focused on learning by groups such as epistemic communities (Adler and Haas 1992) or communities of practice (Adler 2008), and has not developed an explicit theory of complex learning.
what precisely is complex. Some scholars treat complexity, however defined, as a feature of mental activities, rather than of the world that those mental activities describe. Minds themselves may well be complex—indeed, there is increasing evidence in the cognitive sciences that mental activity has emergent properties. However, as political rather than cognitive scientists, it is learning about complex policy problems that should concern us. The world in which policy gets made and the problems it must solve are often complex, as indicated by decades of research under the interdisciplinary rubric of complexity science. I thus define complex learning as learning adapted to addressing complex policy problems. I refer specifically to the complexity of the world to which policymakers address themselves.

The theoretical discussion thus far has focused on disagreements in the literature on learning two decades ago. Lest I be accused of focusing on a defunct theoretical problem, it will be worth noting that difficulties persist concerning political psychology and complexity. Tetlock’s (2005; 2010) work on political expertise serves as a useful example. Tetlock divides political experts into two categories, drawn from Isaiah Berlin: the fox and the hedgehog. “The Fox,” Berlin (1997, 436) tells us, “knows many things but the hedgehog knows one big thing.” For Tetlock (2005, 2), foxes “draw from an eclectic array of traditions, and accept ambiguity and contradiction as inevitable features of life”, while hedgehogs “toil devotedly within one tradition, and reach for formulaic solutions”. Foxes are typified by “integrative complexity” (Tetlock 2005, 251): the capacity to integrate or combine multiple sources of information (Suedfeld, Tetlock, and Streufert 1992, 393). They are thus “tolerant of ambiguity and dissonance, curious about other points of view, and open to the possibility they are wrong” (Tetlock 2005, 75 n6). In contrast, hedgehogs seek parsimony. They rely on preconceptions, and seek conceptual closure

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22 A growing literature in psychology and cognitive science (Bassett and Gazzaniga 2011; Guastello, Koopmans, and Pincus 2014), indicates that human minds have complex, nonlinear, emergent properties. See note 48, below.

23 On policymaking processes that are themselves complex, in the context of climate change, see Hoffmann (2005).

24 One barrier was that complexity remained a somewhat underdeveloped concept in the social sciences at the time, and had not yet been developed in any distinct way in IR. Taking seriously the consequences of complexity science remained difficult. Great strides have been made since, as I indicate below.

25 Tetlock’s focus on expert prediction instead of learning makes for some additional conceptual differences. Where Tetlock focuses on forecasting, I focus below on strategic innovation. Forecasting is neither sufficient for strategy (which must act on the world as well as anticipating it), nor necessary (since strategies may be calibrated for relatively uncertain futures). Tetlock’s focus on prediction permits a large-N study, across many experts. My focus on processes of strategic learning requires close reading and detailed analysis, necessitating a case-based approach. Nonetheless, Tetlock’s project, like most of the learning literature focuses on core questions of cognitive development and change among political experts.

26 Berlin (1997) claims to derive the distinction from the Greek poet Archilochus. The idea recurs in Erasmus.
In short, in terms of how they learn, he characterizes hedgehogs as simple, and foxes as complex. Tetlock assesses these two types of expert quantitatively, evaluating their abilities as forecasters of political events. He finds that foxes are better forecasters than hedgehogs, despite the putative coherence of hedgehog’s worldviews. Indeed, he finds that cognitive style is the single largest factor differentiating the predictive abilities of experts.

Tetlock’s finding is important in any number of ways—indeed, below, I will link his foxes and hedgehogs to specific styles of learning. Nonetheless it tells us relatively little about complexity as such. His approach to complexity is linear, focused on individual’s abilities to make predictions, and locates that complexity directly in the minds of his research subjects, saying little directly about the complexity of the problems they solve. He tests for integrative complexity by quantifying the number of “integrative cognitions” a subject introduced to assess a given issue. The study focuses on a series of discrete tasks (predictions), rather than on a sustained, and thus necessarily complex, set of interactions or activities. In so doing, it downplays complexity in the technical sense. Finally, it focuses on predicting specific events—something complexity theory largely precludes. In many respects, this approach is necessary to providing large-N analysis of political judgment. However, the effect is that complexity as such is largely absent from Tetlock’s account.

What is needed then is an account of how policymakers learn to grapple with complex phenomena. As I will argue below, assessing learning about complexity requires detailed, qualitative attention to individual cognitive processes. The next chapter develops an account in detail, linking learning about complexity to pluralism about learning methods, a position I ground in pragmatism. The remainder of this chapter summarizes the theoretical account, explains how I deploy it empirically, and briefly summarizes findings.

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27 These “cognitions” were framed to acknowledge that “Systemic thinking acknowledges the possibility of ripple effects that slowly work through networks of mediating connections or of positive or negative feedback loops that permit reciprocal causation” (Tetlock 2005, 251). They were in this respect genuinely complex. However, Tetlock’s formula combined genuine acknowledgements of complexity (ripple effects, feedback, etc.) with non-complex factors such as game-theoretic equilibria, recognition of trade-offs, and others, under the non-complex rubric of “problems of managing tensions between contradictory arguments” (Tetlock 2005, 251). These were then measured quantitatively, thus additively or linearly.

28 Indeed, Tetlock (2005, 30–32) appears to view true complexity, identified under the rubric of complexity theory, as grounds for skepticism about the very possibility of prediction or learning. I hope to show this pessimism is somewhat overstated—that we can take complexity seriously without undue defeatism.
2 Complexity and Methods of Learning

My central claim is this: when policy problems exhibit traits of complexity—where they are nonlinear, irreducible, unpredictable—successful policy learning will be attuned to managing complexity. I argue that such complex learning is plural, in the sense of following more than one mode or method, a claim that finds roots in pragmatism. I deal with complexity and pragmatism at length theoretically in the next chapter. Briefly, complexity presents a problem that policymakers can solve through pragmatically pluralist learning. Policy problems are often changeable, unpredictable, nonlinear, and emergent. Learning in more than one way increases learners’ adaptability in the face of such challenges. These multiple models share a common basis as learning in usefulness and communal consent. They can be justified in terms of their ability to produce useful, practical policy prescriptions. That utility, and the means by which prescriptions were arrived at, can be assessed communally or by consensus. As I argue below, pragmatic standards for learning are public.

Here, I briefly sketch the three models or methods. The models of learning are images or ideal types (Weber 2010): analytical constructs of rule-systems for knowledge acquisition that constitute the procedures according to which collective assessment is possible.29 They are, in short, theories of how to learn. A given policymaker may, through the lens of a given method, draw conclusions about courses of action by interpreting available data about the complex social world. I emphasize three such methods. As observers of learning processes, we can identify and assess foreign policy learning at work by identifying these methodological standards and assessing cognitive change with reference to them. These models of learning vary in their aptitude for managing complexity. They are most adept at doing so when deployed in combination. The three differ in how they frame policy problems, in what is said to be learned, in how learning itself occurs, and in what constraints govern learning as it unfolds. These models constitute three major ways in which learning occurs: top down, by imposing pre-existing assumptions on the empirical world; bottom up, by improvising and experimenting in the absence of such assumptions; and interpersonally or intersubjectively, by empathy with the thoughts and intentions of others.

29 For a useful gloss on ideal-typification in IR, see Jackson (2011, 142–46).
The first model, learning by paradigm, emphasizes the role of conceptual schemes in directing and constraining knowledge acquisition—I draw here on Kuhn (1996) and Hall (1993). This account suggests learning predicated on fixed systems of a priori assumptions, pre-existing policy and political beliefs that order knowledge. Learners apply these assumptions to empirical data in order to make sense of the complex and potentially contradictory information they receive from the world around them. Learning by paradigm will tend to yield relatively linear, cogent, systematic claims—general guidelines for action, rather than more local or specific findings. In the cases below, I show it is the least geared to complexity of the three, emphasizing narrow cognitive constraints that impose order on the complex messiness of the world.

The second, learning by doing, is bottom up, emphasizing ad hoc experimentation and adaptation to failure. I draw here on Stein (1994), and on recent accounts of policy formation as “bricolage” (Carstensen 2011; Freeman 2007). Learning becomes a trial and error process wherein policy problems are framed, goals defined, and solutions made possible through iterated improvisation. Learners proceed without foundational assumptions, treating existing ideas and new information alike as tools or building blocks—equipment to be deployed experimentally. Learning by doing yields localized, contextual knowledge, more rigorous in its specificity, but only more slowly assemblable into systematic prescriptions. I show this model is the most individually geared to complexity, embracing the detail and uncertainty of lived experience through emphasis on local knowledge, and distrust of large, systematic claims. It nonetheless faces problems in dealing with scale—in aggregating local knowledge into systematic accounts.

The third model, learning by simulation, describes individual learning about the thoughts and intentions of others. As such, it is primarily intersubjective, dealing with how individual agents assess one another’s mental activity. It thus differs from the other two in dealing chiefly with how policymakers know one another’s intentions, and with interactions between thinking agents. The account draws on simulation theory in cognitive psychology (Goldman 2002; Gallese & Goldman 1998; Cruz & Gordon 2005). Simulationists argue that individuals apprehend others’ thoughts by feeding knowledge of others’ circumstances through their own decision-making processes, thereby simulating others’ thinking. Foreign policy makers can be

30 In contrast, the other two accounts deal with the strategic and tactical practicalities of war in general, ranging from how to deploy and maneuver troops to how terrain impacts tactics. Since most aspects of warfare likely have psychological components, this model of learning emphasizes these over others.
said to learn about their interlocutors by simulating—by stepping into their shoes. Learning by simulation is thus most closely associated with knowledge of others’ thoughts and intentions, and with the social or interpersonal aspects of strategic and tactical reasoning. I find this model is intermediately complex. It emphasizes knowledge of complex objects—minds—but is relatively limited in its scope, taken into account no phenomena beyond the thoughts of others. It thus scales up only limitedly, since its objects of study are necessarily localized.

These models vary in their attentiveness to complexity. However, only when taken together do the three capture much or most of what policy learning needs to apprehend about complex phenomena. Learning by paradigm provides broad strokes and generalized claims in place of contextual specifics. Learning by doing details the fine grain and uncertainty of local, immersive experience. Learning by simulation captures the social in social life—the irreducibly interpersonal or interactional features of society and politics. These three dimensions or strata of learning are interoperable, in the sense that learners benefit from deploying more than one of them, and likely would have trouble learning effectively with one alone. In the three cases below, I show that most cognitive change, insofar as it contributed to policy prescription, can be understood in line with the three models. Indeed, linkages between them give rise to additional insights unavailable from the models individuals. The cases also document a fourth cognitive skill: interoperability across these methods, and thus a capacity for metacognition. Integrating different methods of learning is not automatic; it results from effort. It requires that one intend to do so, and have a facility for the task. It requires, in short, thinking about thinking, or learning about learning—a self-conscious effort to manage interactions between a plurality of potentially conflicting new data, thoughts, and beliefs.

3 Learning in Counterinsurgency

To evaluate these claims, I turn to learning about a policy problem exhibiting many traits of complexity: counterinsurgency. \(^{31}\) Historically, counterinsurgents have prescribed a wide range of policies for defeating irregular opponents. While some scholar-practitioners prescribe hearts and minds approaches (Galula 1964; Thompson 1966), others prescribe trenchant and

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\(^{31}\) In the next chapter, I define counterinsurgency as any attempt to defeat insurgents in warfare. I do not identify specific strategies or tactics, since to do so would prejudice the account of what is learned and how. I define insurgency in terms of three features: first, irregular armed struggle, typified by small units and mobile attacks; second, appeals for popular political support, and thus radical or revolutionary goals; and third, indirect rather than direct strategy, geared to destroying the opponent’s will to win, rather than the ability to do so.
even arbitrary violence (Callwell 1906). Others still prescribe emulating insurgents (Ewald 1991; 2010). Since these prescriptions were presumably arrived at through learning processes, this variety offers an opportunity to observe pluralist learning about complexity at work.

Learning outcomes in counterinsurgency can be observed in the form of manuals—documents that prescribe methods for counterinsurgents in the field. I thus take as cases theorist-practitioners and the manuals they wrote, in light of the wars in which they served. Manuals have an established, if perhaps surprising, history of use as empirical data in IR, including Bertelson’s (1995) genealogical account of Westphalian sovereignty, based in large part on early modern European guidebooks for statesmen, and Johnston’s (1995) account of Imperial Chinese military doctrine, which draws chiefly on the Seven Military Classics of Chinese strategic thought. Perhaps more basically, some classic texts of the IR cannon, including, Machiavelli’s *Prince* (1988) and Clausewitz’ *On War* (2007) are manuals. Military manuals specifically offer a unique window on how policymakers believe a given type of armed conflict should be conducted—that is, on what they have learned about war fighting. They show us not just how states behave, but also how their policymakers think. Ansorge and Barkawi (2013) have recently argued that military manuals belong to a distinct form of knowledge, privileged not for its ability to document social scientific facts and regularities, so much as its ability to effectively instruct readers, making possible ordered action in the theatre of war.

This study takes on three historical cases of individual authors and their manuals. These learning outcomes can be explained with reference to learning processes documented in personal writings—chiefly memoirs or diaries—that record the authors’ wartime experiences. These two categories of document thus provide evidence respectively for the puzzle—variation in how much each man learned—and the explanation: variation in learning processes. I select cases across roughly two and a half centuries—beginning from the birth of the modern state as insurgency’s chief institutional interlocutor. Prior to this, the political asymmetry between sovereign states and non-state actors was ambiguous, and manuals dealing distinctively with

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32 See also Royle (1996) on Orde Charles Wingate’s emulation of insurgents in the British Imperial context.
33 The variety or counterinsurgency continues at the tactical level. For example, while some theorists and practitioners openly endorse torturing prisoners (Trinquier 1964), others express ambivalence (Galula 1963a, 118–19), and still others foreswear it entirely (U.S. Army and Marine Corps 2007, 42–43).
34 Other classic and modern texts were not expressly manuals, but were nonetheless written to serve broadly policy-instructional purposes. They include Hobbes’ *Leviathan* (1994) and Morgenthau’s *Politics Among Nations* (1948).
35 Manuals also comprise the classics of the insurgent doctrinal literature (Lawrence 1922; Mao 1961; Guevara 1961; Marighella 1969)
insurgent or counterinsurgent strategies and tactics are necessarily difficult to identity.\textsuperscript{36} The study assesses how learning occurs within each case, more so than comparing across cases. Thus, a wide scope is desirable, permitting a demonstration of broad applicability.\textsuperscript{37}

The first case concerns the Hessian officer Johann Ewald, who served with British in the American Revolutionary War. Ewald spent eight years in America, fighting American irregulars and recording his experiences (Ewald 1979). On his return to Europe, he wrote two manuals for what he termed “small wars” \textit{(kleiner krieg)} (Ewald 1991; Ewald 2010). The manuals were influential: Clausewitz recommended them, and the British translated one for use in the Peninsular War against the Napoleonic occupation of Spain (Selig and Skaggs 1991, 3).

The second case deals with C. E. Callwell, a British officer of the late nineteenth and early twentieth centuries who served extensively in British imperial conflicts. His manual, \textit{Small Wars: Their Principles and Practice} (Callwell 1899; 1906), was based on his experiences in Europe, Africa, and South Asia, and on encyclopedic historical knowledge. It was likely the most systematic treatment of the subject by an Englishmen at the time. I address his experience of the Boer War, documented at length in his memoirs (Callwell 1923a). Since he wrote the manual before the conflict, and revised after, it reflects how his thinking did (and did not) change.\textsuperscript{38}

The third case deals with perhaps the most famous counterinsurgency theorist on record, David Galula. Galula’s experiences in France’s Algerian War are documented in an memoir of the conflict (Galula 1963a), and were the primary basis for his manual (Galula 1964). Having developed ideas about counterinsurgent warfare while serving as a French military attaché in East Asia, he set out to experimentally “test” them in Algeria. The result was a more-than-typically systematic and rigorously procedural account of how these wars are to be fought.

In each case, I consider how the authors have learned to deal with three broad policy problems. The first is intelligence gathering: how counterinsurgents learn to collect intelligence, and curtail enemy intelligence operations. The second is the use of force: how, when, against

\textsuperscript{36} Non-state actors are much more prone to irregular strategies and tactics than states. On these and related issues of actor and strategy typology, see Kalyvas and Balcells (2010).

\textsuperscript{37} I discuss criteria for case selection in the next chapter. Briefly, I look for manuals that emerged in the context of a given war (so that the in-conflict learning processes can be traced) and wherein sufficient biographical or autobiographical documentation about the learner is available. The universe of possible cases here is thus relatively narrow. Additional counterinsurgency manuals include Emmerich (1789), the early-1940s U.S. Marine Corps \textit{Small Wars Manual} (2005), Trinquier (1964), and Thompson (1966).

\textsuperscript{38} Only Callwell’s case offers this before/after “test” of learning outcomes. Importantly though, such evidence is not necessary to evaluate learning processes, since it documents only to what was learned, not how. Moreover, Callwell learned relatively little. The test thus serves to reinforce not learning (process or outcome), but the lack of it.
whom, and under what constraints to deploy violence. The third is political organization: how to create or impose sociopolitical order for the population of the theatre of war. I address each matter three times: once for each of the methods or modes of learning I assess. Because I rely on the written works of the authors in question, I deal chiefly with primary texts. I develop each account based on the manuals, the authors’ other writings, the secondary literatures on each, and the broader historiography of the wars in which they served.

The cases, and the concluding chapter of this study, explain learning outcomes at length. Here, I briefly summarize. Galula (1964) learned the most. He developed a relatively novel and detailed program for counterinsurgency, offering an elaborate process for defeating insurgents. In contrast, Callwell (1899; 1906) learned the least. He arrived in South Africa with relatively linear and narrow preconceptions about irregular war, the enemy, and how to defeat it. He relied on them extensively, and revised them little. Ewald (1991; 2010) was the liminal case—he learned, but only fitfully and imperfectly. The three cases thus represent varied degrees of learning success or failure. Table 1, above, summarizes.

The cases below link these learning outcomes to variation in learning processes. Galula (1963a) learned most by deploying all three models of learning, emphasizing the approach most adapted to complexity—learning by doing. He learned extensively by trial and error in Algeria. He also deployed a nuanced set of paradigmatic assumptions that structure what he learned. He revised it moderately along the way. Finally, he made moderate use of simulation, assessing the thoughts and intentions of others. I also find evidence that he benefited from metacognition, carefully thinking through the relationships between his preconceptions, his ad hoc experiences, and his understandings of the minds of others. This process was iterative: he learned by alternating between the methods, allowing each one the feed off the insights of the others. Galula’s learning processes were thus both most successful and most attuned to complexity in this study.

In contrast, Callwell (1923b; 1923a) learned almost exclusively by paradigm. He learned by doing only at the margins, and learned almost nothing by simulation. I also find that he engaged in little metacognition, rarely questioning his own assumptions, or considering how he might understand matters differently. In sum, his learning processes exhibited little complexity, and produced little meaningful innovation.
Table 1: Learning outcomes, summarized by problem

<table>
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<tr>
<th></th>
<th>Ewald</th>
<th>Callwell</th>
<th>Galula</th>
</tr>
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<tbody>
<tr>
<td><strong>Intelligence</strong></td>
<td>• Limited to moderate—Ewald’s manual offers little systematic advice for intelligence collection</td>
<td>• Limited—Callwell notes chiefly that intelligence gathering in counterinsurgency is hard</td>
<td>• Moderate—Galula learned effectively about intelligence collecting in Algeria</td>
</tr>
<tr>
<td></td>
<td>• What he does offer operates at a low level of abstraction, rarely moving above tactics</td>
<td>• He had few ideas about how to improve upon it</td>
<td>• His experiences there gave rise to a range of ideas and practices</td>
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<td></td>
<td></td>
<td></td>
<td>• However, these were often in tension with one another</td>
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<tr>
<td><strong>Use of force</strong></td>
<td>• Moderate—Ewald has more to say about <em>why</em> to fight the enemy than about how</td>
<td>• Extensive to overwhelming—Callwell’s focus on violence was so extreme it obscured almost everything else</td>
<td>• Moderate—Galula emphasized a careful, targeted approach to violence, often emphasizing whom <em>not</em> to harm</td>
</tr>
<tr>
<td></td>
<td>• Most of his advice concerning violence is tactical rather than strategic</td>
<td>• His view of violence was nonetheless somewhat one-sided—he ignored evidence it could be counterproductive</td>
<td>• This required a detailed accounting of how to deploy force, but also limited his experience of violence in the field</td>
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<tr>
<td></td>
<td>• Much of it came from imitating the American revolutionaries</td>
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<tr>
<td><strong>Political organization</strong></td>
<td>• Limited—Ewald learned little about political order</td>
<td>• Limited—Callwell believed in a certain sort of imperial political order, and believed in imposing it by force</td>
<td>• Extensive—political order was central to Galula’s conception of counterinsurgency</td>
</tr>
<tr>
<td></td>
<td>• He had strong preconceptions about early modern European political order</td>
<td>• As with the use of force, he had little time for contrary evidence or ideas</td>
<td>• This extended both to opposing insurgent political structures and creating new ones in their place</td>
</tr>
<tr>
<td></td>
<td>• He found America a very different place, and repeatedly misunderstood American political motives</td>
<td></td>
<td>• He developed or tested the elements of his approach extensively in Algeria</td>
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</tbody>
</table>
Ewald’s (1979) learning processes fall in between the other two cases, learning in a partial or incomplete combination of ways. He deployed paradigmatic assumptions, but found them singularly ill suited to the context in which he served. He largely rejected them, but arrived at no systematic replacement. He learned relatively little by doing, but proved a gifted simulator, extensively considering and reconsidering the intentions of his revolutionary interlocutors. Repeatedly questioning his assumptions, he made clear attempts to engage in metacognition, but seems to have benefited from it only partially—perhaps because his experiences provided insufficient basis for revised systematic views. His learning processes were, thus, only partially or unevenly attuned to complexity. His attempts at policy innovation were concomitantly real, but limited. His manual offered detailed tactical advice, but no general strategy.

While this study is concerned primarily with learning processes, it is worth noting that what these men learned was useful in the field. Thus, as we might expect, their success in the field correlates with their success at learning. None of these three men had general authority over the wars they fought, and thus cannot be held accountable for overall conflict outcomes. However, within their individual areas of responsibility, they succeeded or failed in ways closely linked to their capacities for cognitive change. Galula flourished in his sous-quartier, gradually purging the Algerian guerrillas from the area. Indeed, while this assessment is Galula’s own, local guerrilla cadres agreed with him, treating his area of responsibility as a lost cause (Galula 1963a, 133). In contrast, Callwell experienced quite limited success in South Africa. He chiefly followed extant British Imperial military doctrine. His tour of duty in the South African bush was largely ineffectual—he and his men pursued Boer guerrillas at length, but rarely captured or killed them. Tellingly, while he flourished as an officer in his later career, he did so largely in a bureaucratic capacity: he was never again entrusted with a major field command (Gray 1996). Ewald falls between. While his field effectiveness is more difficult to assess—he served in a range of contexts, over eight years in America—it is clear from his diaries that he made frequent mistakes, and also enjoyed recurring successes. By his own account, he did so with greater frequency than his British superiors (Ewald 1979).

In sum, I find that, at least in these three cases, policymakers who learn in more complex ways, and in the most complex combinations of ways, are best able to grapple with the vicissitudes of complex policy problems. The cases describe these findings in depth. Beforehand, the next chapter develops a more detailed theoretical account.
Chapter 2
Learning, Complexity, and Pragmatism

The previous chapter argued that learning about complexity presents a distinctive problem for policymakers. Explaining it has proven theoretically intractable in IR because complexity as such has not been taken seriously enough as a problem learners face. Those instances of policy learning that are most complex are also those most in need of theoretical explanation, since structure underdetermines them. While relatively simple learning can be explained as straightforward adaptation to changing circumstances, more complex problems require complex solutions, and thus also processes attuned to learning them.

This chapter develops a theoretical framework for analysis of complex foreign policy learning. Below, I first turn to complexity theory itself, drawing from it an account of the complex, nonlinear, emergent nature of the policy environments learners must confront. I emphasize organizations as sites of complexity, and as interlocutors for policymakers. Second, I link learning and complexity by appealing to philosophical pragmatism, showing that a pragmatically pluralist and experiential account of learning can provide theoretical groundwork for an account of how foreign policy learning works in a complex world. Third, since the account is pluralist, I set out three models or methods of learning: learning by paradigm, by doing, and by simulation. Fourth, I set out the study’s research design, explaining how the cases in the subsequent chapters proceed. I argue that insurgency is an especially complex policy problem, and identify three cases of counterinsurgent policy learning for empirical exploration.

1 The Problem of Complexity

This study proceeds by analogizing insurgencies to complex systems. Complexity theory originated in the natural sciences (Nicolis and Prigogine 1977; Prigogine and Stengers 1984), and has since been taken up in the social sciences.\(^{39}\) It posits the existence of complex systems:

\(^{39}\) Useful introductions, accessible to social scientists, abound. See Holland (1992), Zimmerman et al (1998), Hoffman (2003). This section is brief, with a mind to the ready availability of alternative points of entry.
aggregate entities possessing qualities greater than the sum of their parts. Complex systems are nonlinear, and thus exhibit distinctive behavior at scale (such as threshold effects). Changes in complex systems often amount to adaptation to environmental conditions. In some contexts, these may amount to what is termed emergence.

Complex systems comprise many densely interconnected and often diverse constituent units (Zimmerman, Lindberg, and Plsek 1998, 8). However, they are distinct from merely complicated phenomena in that they are nonlinear, and thus often unpredictable. The whole acquires properties arising from the interactions of the parts, rather than from the parts themselves. Connectivity generates aggregate properties not observably reducible to mechanical interactions between parts (Holland 1992). The unpredictability of such change is linked to differences in behavior across scales. Unit-level interactions cannot be monotonically linked to outcomes, and changes in the system can only be explained with reference to the system itself. Small adjustments may have outsized consequences; large ones may have little at all. This is sometimes described in terms of “threshold effects” (e.g., Homer-Dixon 1991; 1996). A common and very simple example is a pile of sand, built up as one grain at a time is dropped onto it. The pile accumulates linearly until it does not—one grain too many disrupts the pile, and it cascades (Bak 1999).

Complex systems may additionally be adaptive: their unpredictable transformations represent adaptations to their surroundings. While not all complex systems are adaptive (clearly the sand pile is not), most social ones are. Hofstadter (1979, 316–17) offers the quasi-social example of an ant colony: “Despite the rather limited repertoire of the individual agents—the ants—the colony exhibits a remarkable flexibility in probing and exploiting its surroundings” (Holland 1999, 5). None of the ants individually carries a plan for the colony. Indeed, given the need to adapt to conditions on the ground, too much advance planning would be undesirable. The aggregate capacity to adapt is found nowhere in the individual components of the system. Instead, the colony taken as a whole adapts in complex ways, taking on new aggregate features in response to its environment. While not all complex systems are adaptive, most complex human or biological systems likely are.

40 Threshold effects are the subject of several literatures in the social and natural sciences (see reviews in Homer-Dixon 1991; Hansen 1999).

41 For example, the human immune system comprises many types of cells, designed to repel or destroy foreign entities in the body. “Because the invaders come in an almost infinite variety of forms, the immune system cannot
Taken together, these nonlinear and unpredictable properties, irreducible to the sum of their parts, are sometimes described as emergent:

Emergence… refers to the arising of novel and coherent structures, patterns, and properties during the process of self-organization in complex systems. Emergent phenomena are conceptualized as occurring on the macro level, in contrast to the micro-level components and processes out of which they arise. (Goldstein 1999, 49)

More pithily, emergence is “much coming from little” (Holland 1999, 1): interactions of relatively small and simple things making relatively large and complex things, where no previous such scale and complexity existed. While not all accounts of complexity emphasize emergence, the concept comprises many important features of complexity as such. Heuristically speaking, a phenomenon can be thought of as emergent to the extent that it exhibits nonlinear, unpredictable behaviors at higher orders of aggregation that are irreducible to lower ones, and that these behaviors are novel in ways adaptive to the phenomenon’s surroundings. In short, if it increases its fit to its environment in irreducible and unanticipated ways, it is useful to think of it in terms of emergence.42

Interest in complexity theory in the social sciences has transcended disciplinary barriers, taking in economists (Arthur 1999; Tesfatsion 2002) and anthropologists (Lansing 2003; Agar 2004a; 2004b) alike. IR theorists have made extensive use of complexity on an abstract, theoretical level, including Jervis’s (1998) work on “system effects,” and Axelrod’s (1997) work on complex adaptation in cooperation, and a proliferation of others (Homer-Dixon 1996; Hoffmann 2003; Bousquet and Curtis 2011). However, empirical applications have proven difficult. As Gunitsky (2013, 36) notes, “To say that international politics are complex is trivially true, and does not offer any particular insight into international processes.” Complexity theory offers few specific predictions, embracing instead the very volume of detail and nuance that much conventional social science aims to elide. Perhaps as a result, IR has to date had more calls

simply develop a list of all possible invaders” (Holland 1992, 18). It must instead adapt, developing new capacities to defend the body. In so doing, it must differentiate the body’s own components from foreign elements. The exceptions are autoimmune diseases, wherein the system attacks the body itself, mistaking it for a foreign contamination. Such ailments are, however, comparatively rare: they are exceptions, serving to indicate how remarkable the rule truly is (Hoffmann 2003, 19).

42 Originating in the natural sciences, complexity is often linked with positivist philosophy of science. However, it need not necessarily be. It has also, for example, been linked with postmodernism (Cilliers 1998) and with sociological approaches (Eve, Horsfall, and Lee 1997). Its uses in IR have been similarly eclectic—see for example Bousquet and Curtis (2011). See also discussion below of the heuristic use of “weak” emergence.
for the use of complexity theory than empirical applications.43 Part of the difficulty with deploying it in IR may be the scale and variety of the subject matter—accounts of just how precisely world politics as such are complex have proven difficult to formulate.

In this study, complexity serves as not an explanatory framework, so much as a condition of the world with which policymakers must contend. I deploy it primarily not to explain how certain features of the social world works, but instead to describe those features as they present themselves to individual practitioners. Thus, in these cases, complexity is a condition under which learning succeeds or fails. Put differently, I argue complexity theory can most straightforwardly be made analytically useful if we refocus away from the systemic features of world politics itself, and toward the actors or subsystems within it, theorizing and observing complexity at work within them. These actors or subsystems confront policymakers as complex problems or challenges. Policymakers must thus learn or adapt to dealing with these nonlinear, emergent circumstances. Insurgencies, understood as instances of organizational complexity, offer especially complex policy problems. This approach offers a way to take complexity seriously without reducing it to triviality.

I adopt the framework of complexity as a heuristic. Indeed, heuristics have an entrenched history as a component of complexity theory. For example, emergence, when construed as weak emergence, is heuristic: it describes aggregate properties that are undiscoverable merely as a practical matter.44 So construed, emergence refers not to the ontological irreducibility of the world—a claim many philosophers of complexity would find difficult to defend—but instead to the practical impossibility of making sense of the sum total relationships between aggregate parts as the present themselves in an integrated totality. Similarly, no one contends that the cascading pile of sand is in principle impossible to predict, only that the precise timing of the cascade will be unexpected for the casual observer. An ant colony’s aggregate traits may be causally linked to its component parts in specific ways, but it is heuristically more useful to think of it as a complex system with traits occurring only at the aggregate level, when we are concerned with the colony itself, rather than the ants that built it. Put differently again, for the purposes of this study,

43 The chief exceptions are theoretical, as in agent-based modeling (Axelrod 1997; Cederman 1997) and Gunitsky’s (2013) revision of neorealism. Homer-Dixon’s (1991; 2006) and Hoffmann’s (2005) respective work on environmental politics is almost alone in using complexity empirically.
44 In contrast, strong emergence describes such properties that are ontologically or in principle irreducible to the sum of their parts. It is, perhaps unsurprisingly, philosophically controversial. For a critical assessment see Bedau (1997). For a mathematical defense, see Bar-Yam (2004).
complexity is an epistemic trait rather than an ontological one. It describes things as we understand them, and can understand them, rather than as they are in some absolute sense. Since this is a study of learning, we need concern ourselves only with the knowable world.

To understand complex policy interlocutors, I turn to the complexity literature in organizational science. Organizations are increasingly seen as complex adaptive systems, evolving and co-evolving emergently (Anderson 1999). Such analyses treat organizations as emergent and adaptive: “self-organizing networks” comprising “agents with schemata” that co-evolve “at the edge of chaos” and engage in “recombination and system evolution” (Anderson 1999, 219–20). These stipulations are worth taking briefly in turn. Complex, adaptive organizations are made up of agents (individuals or sub-organizations) that adapt autonomously to their environment. The system as a whole may thus appear chaotic, as parts change heterogeneously. In some respects it is, since complex adaptive systems often operate without equilibrium, or with multiple possible equilibria. However, being near chaotic serves an adaptive purpose. As units adapt differently to internal and external pressures, they proliferate adaptations at the local level, increasing complexity. When successful local adaptations are adopted organization-wide, the effect proliferates, crossing scales: localized change has systemic effects. Organizations loosely structured enough to permit or facilitate such chaotic adaptation thus have an adaptive advantage (Brown and Eisenhardt 1998). Such adaptive processes never quite spill over into disorder, instead facilitating adaptation to their surroundings. “At this point of dynamic tension, truly novel emergent behavior can occur” (Lewin, Long, and Carroll 1999, 541).

Organizations construed as complex adaptive systems present themselves here as policy problems, and thus as interlocutors for individual policy learners. As I argue below (chapter 2, section 4), insurgencies tend to have many core characteristics of complexity. Foreign policymakers generally deal in interactions with organizations: rival states, intergovernmental organizations, social movements, multinational firms, terrorist networks, and revolutionary uprisings all present themselves as ordered or quasi-ordered social units, with which policymakers must contend. While they differ in many respects, to varying degrees they can all

45 Organizational theorists had already regarded organizations as complex in a nontechnical, linear sense—that is as complicated, comprising many interacting parts (Thompson 1967).
46 Such accounts have proven especially fruitful in the analysis of healthcare organizations (Zimmerman, Lindberg, and Plsek 1998; Anderson and McDaniel 2000).
47 Complexity theory construes successful adaptation in terms of fitness, in the evolutionary sense: ability to respond to the surrounding environment effectively, so as to ensure survival and biological or institutional reproduction.
be regarded heuristically as complex adaptive systems. If policymakers’ interlocutors are complex, policymakers’ means of learning must be adapted to the task of managing complexity. Specifically, I am concerned with military policymakers as learners, whose policy problems are adaptive organizations—insurgent movements. Section four, below, details an account of insurgency as especially complex.

2 Pragmatic Learning about Complexity

First however, I turn to the theoretical problem of learning itself. This section develops a pluralist theory of learning based on American pragmatism. A pluralist account makes sense of policy learning about complexity by appeal to multiple methods or tools of adaptation or innovation. Pragmatism provides standards for pluralist learning based on usefulness and consensus. This section proceeds as follows. First, I introduce a distinction between pragmatic “theories of practice” and “practices of theory,” drawn from Franke and Weber (2012), which I link to practitioner theory-building or learning. Second, I introduce a pragmatist conception of pluralism, arguing that pragmatism offers a basis for a theory of multiple forms or methods of learning. Third, I link this to a conception of experiential learning, providing a basis for pluralism as social or intersubjective. I conclude by linking this to the account of complexity in the previous chapter.

Pragmatism has received an increasingly wide range of applications in IR. To differentiate the multiple ways IR has used pragmatism, Franke and Weber (2012) distinguish between “theories of practice” and “practices of theory.” The former refers to specific pragmatist explanations or theoretical tools: either as a method of analysis or a substantive explanatory toolkit. Such accounts might include a pragmatist theory of action (Hellmann 2009) or power (Pratt 2014), an account of habituation as a source of behavior (Rytövuori-Apunen 2009), or a focus on practice as locus of social activity (Adler and Pouliot 2011). In contrast, the “practice of theory” provides a philosophy of social science, explaining how the process of theorization works. Examples include pragmatist appeals for eclectic social science (Sil and Katzenstein 2002), as a “therapeutic” tool for dissolving the field’s “blinders” (Deibert 1997), as a means for dissolving or end-running inter-paradigmatic debates (Sil and Katzenstein 2010), as a basis for a socially-grounded philosophy of science (Friedrichs and Kratochwil 2009), or as a distinctive set of ontological “wagers” for IR research (Jackson 2009). This literature has grown broad enough that its purpose is somewhat ambiguous. See also an edited volume (Bauer and Brighi 2009), and two journal special issues (Journal of International Relations and Development 2007; International Studies Review 2009). For an unusually gripping intellectual history, see Menand (2002).
2010), or efforts to situate social science within the social world it examines (Friedrichs and Kratochwil 2009). This pragmatism recognizes multiple ways of knowing, unified by a common task: “to enable orientation in the social world” (Friedrichs and Kratochwil 2009, 702). Theories of practice study the actions constituting world politics. Analysis of the practice of theory explains the tools with which we study them.49

However, IR scholars are not alone in theorizing: policymakers, too, have ideas about the political world, engage with it intellectually, and learn, or try to learn, about how politics as such work. What has been absent thus far from pragmatism in IR is an account of the practices of theory undertaken by policymakers themselves—that is, a pragmatist theory of foreign policy learning. To develop one, I turn to the American pragmatists themselves. My claim is that a pluralist conception of knowledge linked to an emphasis on the sociality of lived experience offers a basis for an account of learning in a complex, dynamic, and emergent world. In so doing, it adopts a pragmatist anti-foundationalism about learning methods, locating knowledge in usefulness and consensus, rather than in verification or correspondence theories of truth.50 To provide the account, I draw on Dewey, supplemented with insights from James.

I begin with Dewey’s conception of experience. For Dewey, as previously for James, knowledge is experiential, in the sense of being linked to usefulness or action. He develops a conception of knowledge that emphasizes

the continuity of knowing with an activity which purposely modifies the environment.... Only that which has been organized into our disposition so as to enable us to adapt the environment to our needs and to adapt our aims and desires to the situation in which we live is really knowledge. (Dewey 1997, 217)

Thus, Dewey emphasized learning and knowing as things done—that is, as actions. This is the basis for his somewhat famous assertion that “Mind is primarily a verb. It denotes all the ways in which we deal consciously and expressly with the situations in which we find ourselves” (Dewey 2004a, 263–64). So understood, mind—thought, mental activity, cognition—is an activity necessarily located in lived experience. Thinking and learning happen not in an isolated mental context, but in immediate and persistent interaction with the world. Learning in this sense is purposive, insofar as it aims to interact with, and change, the world around it. Similarly, the

49 Scholars occasionally conflate the two roles of pragmatism. Friedrichs and Kratochwil (2009) claim to find in pragmatism both a remit for methodological pluralism and a substantive method (abduction) which they advocate. The two roles are complimentary, but nonetheless distinct.

50 See alternately Flyvberg on practical or useful social science as phronesis (2001; 2006).
central contention of James’s pragmatism is that “thoughts are instrumental, and mental modes of adaptation to reality” (James 1949, 194, emphasis original). Put differently, knowledge is always and originally purposive: something done, which serves to orient the knower in the world.51 Useful ideas are those that allow us to relate elements of our experience to one another (James 1949, 54–55). Since a tool’s use is conceptually, spatially, or chronologically localized where, when, and how it is deployed, it is necessarily not universal. So understood, theories should not be evaluated based on their generalized correspondence to a mind-independent reality. They should be judged instead by their usefulness, and more than one theory maybe useful. For James, “no theory is absolutely a transcript of reality… any one of them may from some point of view be useful” (James 1949, 57).52

If utility is what matters, then different means or methods of learning will likely prove valuable. Theories for James (1949, 57) are “conceptual shorthand… in which we write our reports of nature”.53 Such conceptual tools are claims about how we should learn about the world: what we commonly call methods. Methods of learning will be differentiated procedurally, in terms of how they select, interpret, and interrelate data. They become useful only when we have specific goals in mind. The consequence is that no single methodological toolkit—no one method of learning—is uniquely correct. The validity of a given tool or set of tools for acquiring knowledge depends on what it is we aim to know. Different problems or purposes may call for different methods, that is, different ways of learning.54

Pluralism of this sort can sound like a dangerously relativistic proposition. However, the purpose is precisely to deflate the risks to knowledge associated with a more traditional Cartesian

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51 James went on to call the formulation “radical empiricism”: an emphasis on lived experience so extreme as to reject the category of intellectual preconception as such. Taken to this extent, it ceased to be empiricism in the sense of Locke and Hume, for whom it had indicated a philosophy emphasizing a mind receiving sense data. On this account, no such metaphysical categories as sense data and or preconceived subjective mind could be presumed: only lived experience remained. Pragmatism thus has strong parallels with German phenomenology (Husserl 2010) and Wittgenstein’s (2001) “dissolution” of philosophical problems.

52 According to James, “No one point of view or attitude commands everything at once in a synthetic scheme” (quoted in Menand 2002, 378). Instead, “the substance of reality may never get totally collected… some of it may remain outside the largest combination of it ever made” (James 1996, 35). James was, especially in his later works pluralist about many things, including substantive ethical and religious worldviews. According to Ferguson (2007, xxii), “James found the rationalization and systematization of the modern world profoundly destructive of humanity.”


54 So understood, the plurality is of knowledge acquisition (scientific) methods, not philosophical methods. On this account, there are multiple tools for understanding the world empirically. For Dewey and James, the correct tools for understanding the world philosophically are those (and only those) of pragmatism.
dualist epistemology. On a pragmatist account, what we know is localized. Varied claims, theories, or knowledges are not so much contradictory as differently distributed, contextually and purposively. They link up to one another, and can be linked by their users, to the extent that they can be made useful to a given end in a given context. In short, pragmatism holds that there is no one effective or useful way to learn. This does not mean that any and all learning outcomes are acceptable—it means simply that judging between them requires judging their effectiveness in context. Dewey (1960, 9) would go on to refer to “warranted assertability”: the view that what one learns, however justified, is nonetheless permanently provisional, and thus subject to later review by one’s intellectual peers. Put differently, learning is necessarily public, insofar as it make what cognitive change that counts as learning subject to the judgment of others.

Pragmatism’s conceptual bulwark against relativism is thus found not in metaphysical foundations, but instead in the fundamentally social and contextual nature of mental activity. Mind “never denotes anything self-contained, isolated from the world of persons and things, but is always used with respect to situations, events, objects, persons and groups” (Dewey 2004a, 263–64). Individual experience, and by extension learning, is primarily social: “That character of everyday experience… is saturated with the results of social intercourse and communication.… Mind is… a function of social interactions” (Dewey 1929, vi). Social interaction structures experience all the way down, such that

the non-social individual is an abstraction arrived at by imagining what man would be if all his human qualities were taken away. Put differently, individuals are individual only in the context of a shared social context. Society, as a real whole, is the normal order, and the mass as an aggregate of isolated units is the fiction. (Dewey 1969, 232)

Experience is not something one has or does alone. It is always, originally shaped by the social conditions under which it occurs. Isolated Cartesian subjectivity is replaced by collectivity, wherein subjects share experience through what Davidson (1982; 1991) would later call “triangulation”: a structure of knowledge whereby individual subjectivity becomes identifiably true because more than one individual shares in it, providing two (or more) points of reference

55 This is not the place for extended metaphysical analysis of the attendant philosophical issues. For an extended and useful discussion, from a pluralist but not wholly pragmatist perspective, see Jackson (2011, 115–141).
56 Thus, the underlying philosophical implication is not that “anything goes” or that, in Richard Rorty’s formulation, “every belief… is as good as every other.” As Rorty notes, “No one holds this view… [those] who get called ‘relativists’ are those who say that the grounds for choosing between such opinions are less algorithmic than had been thought” (Rorty 1980, 727).
converging on a third: the shared facts or interpretations at hand. However, triangulation does not verify an external reality so much as provide consensus—a social fact—as to its content.57

For Dewey, this position had wide-ranging consequences, for example, providing philosophical foundations for a moral belief in social solidarity. For our purposes, it is enough to note that individual learning is irreducibly social. Learning is something that happens in interaction with others. Since the test of knowledge lies in its utility, what one learns is subject to evaluation by others, since they too will use it, or attempt to use it, to understand and act upon the world. What one learns can never be wholly relative to individual mental life, since it is subject to communal standards. Dewey thus links a pluralist anti-foundationalism—the belief that no one theory or method is correct—to a strong intersubjectivity: the belief that lived experience is something fundamentally shared.

Recent developments in the cognitive sciences are largely consistent with this account, suggesting much mental activity is geared not toward individual cognition, but instead toward social or intersubjective experience. Mercier and Sperber (2011), for example, show that conscious reasoning likely evolved primarily not to facilitate individual problem solving, but instead to permit individuals to convince others of specific claims—that is, to engage in argument. As such, the evolutionary function of reasoning is linked to collective rather than individual knowledge. Similarly, Baumeister (2005; Baumeister and Masicampo 2010) has argued the evolutionary function of consciousness more generally is to facilitate social or cultural order: “Inner processes serve interpersonal functions. What goes on inside the person is there to facilitate the types of relationships we have… The human psyche is thus designed by natural selection to enable us to belong to a culture” (Baumeister 2005, viii–ix). If such arguments are true, human knowledge and experience does not occur in groups incidentally or secondarily. Rather, groups—societies or cultures—are a precondition for the emergence of the higher order cognitive function that makes modern humans distinct. We are social or cultural animals all the way down.

In sum, if multiple valid means of learning are available, then there is no one right method or way to learn. Nonetheless, we can distinguish learning from other cognitive change by

57 Davidson’s position differs both from strict positivism, since it links truth to intersubjectivity rather than mechanistic verificationism, and from philosophical realism, since it posits no metaphysically mind-independent world. It is, instead, silent on these matters, linking truth to what experiencers can immediately know.
the usefulness of the information or knowledge it generates. Shared experience provides multiple methods of learning, each procedurally distinct, with a common basis in usefulness and consensus. Understood pragmatically, policy learning is the process of apprehending the social world from within it, in ways that allow the learner to act in it. The usefulness of that action can be assessed communally. Since what is learned is shared, it is subject to communal standards of usefulness.

Pragmatist stipulations about knowledge—pluralism, usefulness, and intersubjectivity or consensus—allow us to link complex policy learning to a basis in pragmatism. Methods or modes of learning can be expected to vary in terms of their ability to make sense of complexity. Some methods of learning will be more attuned or adaptive to complexity than others. Combinations of them will likely do so especially well, providing multiple ways to make sense of a complex, uncertain, unpredictable world. This study posits three models or methods of learning: pragmatic tools for grappling with the problems policymakers (and others) face. I address their differing in their approaches to complexity below, in the context of explaining each.  

3 Three Models of Learning

Talk of multiple modes or methods of learning itself becomes analytically useful only once we specify such models substantively. This section details three. In each instance, I explain what the model claims can be learned and how, showing what each version of learning can and cannot be expected to tell policymakers about the world in which they operate. I illustrate each with examples from history and from the cases below, as introduced in the first chapter.

The models are heuristics or ideal types (Weber 2010; Jackson 2011, 114–15). Their purpose is to usefully simplify complicated (and indeed complex) cognitive activity such that it can be explained systematically, with reference to specific empirical cases. Below as above, I offer a range of behavioral, psychological, and neurological evidence from the cognitive sciences that may aid us in making sense of these constructs. Nonetheless, the three models remain idealizations—analytical constructs, rather than demonstrable realities with clear material

58 Sanderson (2009) also links complexity to pragmatism and learning, but does so rather differently, aiming to critique “evidence-based” policymaking, and emphasizing only one method of learning (by doing).

59 Jackson specifies that ideal-typical explanations are necessarily case specific. While these models are generalized, the explanations of each learner to which they give rise below are case specific, rather than general.
(neurological) grounds. In this respect, they are broadly analogous to the two systems of judgment described by Kahneman (2003; 2011). In that instance, regardless of their basis in the structures of the brain, “There is considerable agreement on the characteristics that distinguish the two types of cognitive processes” (Kahneman 2003, 698). Similarly, my purpose is to establish analytically useful distinctions, which can then be used to explain differing individual learning processes. Rather than explaining the models themselves, I aim to deploy them in explaining instances of complex learning empirically. The relationship between them is configurational (Jackson 2011, 115), insofar as explanations of individual learning outcomes are to be constructed by assembling (configuring) the ideal-types in varied ways relative to the empirical record, to account for the variation in success or failure at learning. Configurational analysis consists in assessing “which factors, in what combination and sequence, in which context” produce the observed outcome Jackson (2014, 5).

3.1 Learning by Paradigm

Learning by paradigm occurs with reference to fixed or schematic worldviews. Knowledge accumulates around schemes of foundational assumptions, without reference to which it would lack coherence. Such accounts of learning date at least to Gestalt psychology (e.g., Koffka 1955). In political science, Hall’s (1993) account of policy paradigms derives chiefly from Kuhn’s (1996) seminal work on scientific revolutions. Kuhn’s central claim is that scientific knowledge accumulates within conceptual schemes he terms paradigms. These schemes provide foundational assumptions and organizational frameworks within which “normal” science occurs. Without them, organized knowledge would be impossible. In consequence, transformational moments in the natural sciences like the Copernican revolution are not leaps forward so much as radical breaks: epistemic conversion experiences so complete

60 System one comprises quick, intuitive judgments. System two comprises slower and more consciously deliberative reasoning—the linked above to argumentation. Kahneman draws the distinction, commonly called “dual process theory,” from Stanovich and West (2000); see also Evans (2003). My purpose is simply to indicate that analytical constructs of this sort are of use in assessing potentially complex cognitive activity.

61 “It is the configuration as a whole that is causally responsible for the case-specific outcome” (Jackson 2014, 5). Empirical analysis then consists in delineating the differences between the ideal-type and the reality: “historical research has the task of determining in each individual case how near or how far reality stands from this ideal structure” (Weber, quoted in Jackson 2014, 4). In this study, the purpose is to deploy ideal-type accounts of learning, in the context of the three individuals’ lived experience, to explain the variation in learning outcome.

they disrupt the central assumptions of their disciplines. Since old and new dispensations share no common assumptions, there is no basis for rational selection between the two: Kuhn terms them “incommensurable”. 63

In political science, Hall’s (1993) account applies Kuhn’s framework to the study of public policy. Policy change, he claims, occurs on three levels or orders. First order change is diagnostic, driven by a range of assumptions about available options and their consequences, and consists in calibrating established policy tools. Policy goals and instruments remain unchanged. Second order change revises the instruments through which they are to be achieved. Goals remain the same. Periodically however, the central assumptions of policymakers may be discredited by unexpected outcomes. When this happens, policymakers’ foundational assumptions may be discredited as well. Goals, means, and their calibrations will be thrown out and replaced. Such third order changes are rare, but important: they involve wholesale reimagining of a given policy area. 64

In foreign policymaking, such shifts are often the result of external events that render the existing paradigm untenable. British and Allied defense policy in 1939 provides a useful example. Existing policy was to operate within the residual League of Nations collective security system, appeasing the rising Nazi German state. The goal was to maintain peace in Europe. In this context, first order change would have involved adjusting the means and amount of appeasement: ceding territory, permitting further German rearmament, and so on. Second order change might have involved finding another instrument with which to maintain peace—deterrence, perhaps, had it been possible. Third order change, however, involved the wholesale replacement of the goal: instead of a peaceful equilibrium, the goal became absolute military victory. Once Chamberlain’s paradigm of “peace in our time” was discredited, an alternative had to be found. The new paradigm, which stipulated no settlement, no separate peace, and no outcome but total German surrender, broke radically with the previous one. Such changes are, of course, relatively rare in foreign and defense policy. They often accompany bellwether events

63 Revolutions render science not progressive, but cyclical. It must always begin again, under new assumptions. For Kuhn this indicates not that scientific knowledge is baseless, but that the criteria for it are, occasionally, less systematic than they appear to be. It is this underlying consensus or shared dogma that makes Kuhn’s paradigms different from Lakatos’s (1980) research programmes or Laudan’s (1978) research traditions.
64 Hall offers us the domestic example of the British shift from Keynesian to neoclassical market-driven economic policy in late 1970s and early 1980s Britain.
like the end of the Cold War or the September 11th attacks: existing paradigms are most easily discredited by large events they cannot foresee or accommodate.

Like the other two models in this study, learning by paradigm will tend to yield certain kinds of learning outcomes. Derived from within a paradigm, these will tend to be relatively linear and systematic: they will reflect broad generalizations and the deductive outputs of a systematic worldview. In counterinsurgency, it will tend to yield prescriptions to, for example, systematically protect the civilian population, or to systematically prey upon them. In each case, the finding is arrived at deductively, based on a pre-existing configuration of knowledge, with only secondary reference to practical experience. Strategies and tactics adopted are drawn from constraining assumptions about what constitutes insurgency and counterinsurgency, what goals are to be pursued, and what means are available. Cumulative learning becomes possible only within these constraints. For example, the theorist-practitioners addressed in this study varied widely in their paradigmatic commitments. Ewald (1991; 2010) viewed insurgency and counterinsurgency through the lens of the social hierarchies and honor codes of early modern absolutist politics. Later, Callwell (1906) viewed insurgency through the lens of British colonial thinking. Still later, Galula (1964) understood counterinsurgency in the context of Cold War anticommunism and Maoist insurgent doctrine. Each is paradigmatically distinct—ruptures in the basic policy thinking of states having intervened between them.65

In the cases below, I find learning by paradigm is only minimally adapted to learning about complex problems. Paradigms are essentially linear, deploying static conceptions of the world, and thus capturing little if any emergent complexity. In Berlin’s (1997) or Tetlock’s (2005) terms, learners by paradigm are hedgehogs: they have “one big idea,” rather than many small ones. A relatively absence of complex detail limits learning of this kind to fixed generalizations. While doing so elides complexity, it nonetheless has some advantages, permitting rapid generalizations across contexts and systematic inferences based on limited data. However, it does not capture local detail, or processes of nonlinear change.

Studying a case of learning by paradigm begins with identifying the paradigm itself: the assumptions at work. Since these assumptions are often tacit or unthinking (it is the act of

65 Or alternately, each state came to its own policy paradigm independently. Either way, the paradigmatic context of the goals, means, and calibration of counterinsurgency policy differs radically across cases. Since this study is concerned with continuity and change in learning within each case, rather than across them, paradigm shifts occurring between them historically are outside its scope.
learning that is necessarily conscious, not the details of the process), they will often be more implied than overt. Once these are identified, one can then determine how the paradigm guides and constrains learning. In counterinsurgency, as elsewhere in political and military life, assumptions can be identified by investigating the political beliefs of a given theorist, as well as the sociocultural context in which they operated. This, in turn, allows the identification of limits, conceptual constraints, and failures to deal with unexpected policy outcomes—the possible seeds of a paradigm shift.

However, under normal conditions, learning by paradigm is narrowly linear, involving the replication of application of existing abstractions to new data, or the expansion of frameworks using existing underlying logics. This is what Kuhn (1996, 23–42) calls “normal science”: the empirical application of existing basic ideas to empirical “puzzle solving.” This application of basic ideas usually occurs to the exception of overturning of them. In this respect, learning by paradigm is the least self-reflexive of the three models, and the least prone to producing deep revisions of belief.

Kuhnian accounts of science have sometimes been accused of relativism. Importantly, Kuhn’s position was not that science fails to measure up to a universal or complete notion of truth. Rather, his response to accusations of relativism was pragmatic, claiming that there is simply no unadulterated truth about which to relativize: “There is, I think, no theory-independent way to reconstruct phrases like ‘really there’” (Kuhn 1996, 206). The problem is not that there are truths that science fails to access because of paradigm dependence. Rather, paradigms permit science to arrive at pragmatically useful accounts of the world. When they cease to be useful they are set aside: Aristotelian physics is replaced by Newtonian, and it by Einsteinian. We need not construe this as progress toward some right view. We should instead view paradigms as lenses with which we can make the world comprehensible.  

A moderated view of paradigms is supported by evidence in psychology. Psychologists, and IR scholars drawing on them, have long recognized a role for schemas, or ordering mental

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66 For a sympathetic account in IR drawing on Weber, see Jackson (2011, 114–16).
67 For a recent defense of schema theory’s continued analytical utility, see McVee et al (2005). Schemas have been applied outside cognitive science to explain phenomena in organizational science (Harris 1994), communication (Nishida 2005), education (Cooley, Trigueros, and Baker 2007), and political psychology (Duncan 2005).
frameworks. However, they generally recognize that they offer no complete explanation (Heit 2006; Stein 1994, 163–66). Psychological schemas, unlike strictly defined Kuhnian paradigms, are subject to ongoing revision: they may distort our worldviews by way of selective perception, and thus constrain our pool of possible actions, but the constraint is not absolute. Carstensen has recently glossed the issue nicely: “Schemas are not tightly structured… There is evidence that long term memory involves not so much storing a tape of an event, but a network of ideas.” (Carstensen 2011, 152; see also: Martin 2010). Thus, paradigms—schemas—can be ideally-typically construed as important determinants of learning. Nonetheless, a more bottom-up, rather than top-down, view is called for as well.

3.2 Learning by Doing

Instead of proceeding from pre-existing assumptions, learning by doing begins with relatively little foregoing knowledge or belief and develops theoretical constraints ad hoc as it goes. Learners must thus define questions as well as answers along the way. Theories of learning as primarily practical or experiential date at least to Aristotle, and find pragmatic articulation in Dewey (1899; 1929). This bottom-up approach entered the IR literature through Stein’s (1994) account of learning by doing. She acknowledges first that “Generally, problems in foreign policy are ill-structured. Goals are often multiple and vaguely defined, one or more constraints are open, information is ambiguous and incomplete, and little may be known about the solution to the problem.” Learning must thus proceed by trial and error: it occurs through failure, ruling out options and interpretations by way of ad hoc experiments. It is thus “messy, dynamic, interactive” (Stein 1994, 172–73). Learning through failure helps to determine what courses of action, and thus what outcomes, are possible. It informs how we understand policy problems, and thereby limits policy goals by first determining what counts as a valid policy problem—that is,
one that can be solved. Put differently, by learning what is possible, policymakers learn what
rank ordered preferences they can reasonably hold.\textsuperscript{73}

Similar accounts in the study of public policy and public administration (Carstensen
2011; Freeman 2007), argue policymakers engage in a process of “bricolage” (Lévi-Strauss
1996): creative, ad hoc policy formulation based on ideas and policy tools already at hand.
Bricolage is:

“an innovating recombination of elements that constitutes a new way of configuring
organizations, social movements, institutions and other forms of social activity”, which
entails “the rearrangement of elements that are already at hand, but it may also entail the
blending in of new elements that have diffused from elsewhere”. [Carstensen (2011,
154), quoting Campbell (2005, 56)]

Put differently, bricolage consists in creatively cobbled together ideas and beliefs, both new and
old, to form novel policy solutions. Learners-by-doing then apply these experimentally, either
solving the problem or learning from the failure to do so. Failure permits new reassembly of
available ideas, and new experiments. While for learners by paradigm ideas are mental
guidelines, for learners by doing ideas are tools: objects that may be used, abused, revised,
combined, broken up, and rebuilt largely at will.\textsuperscript{74} Inside a paradigm, ideas are dogmas. For the
bricoleur, ideas are equipment. We can think of this pool of ideas as a toolkit: a selection of
available intellectual materials for solving problems.\textsuperscript{75}

This does not mean anything goes. What constrains an idea’s scope of possible use is “the
previous application of the idea. That is, since new ideas must be hooked on to older ideas,
ideational path dependence in practice limits the possible combination of ideas” (Carstensen
2011, 157). Tools have roles—their designs limit their scope of use. They are thus flexible only
within limits: one can use a hammer to tear down a wall as well as to pound in a nail, but not to
fix broken china. A toolkit constrains not because it imposes blinders on one’s perceptions, but
because its contents limit one’s options when interpreting and acting upon the world.

\textsuperscript{73} Callander (2011) has recently proposed a formal model for a similar process.
\textsuperscript{74} Similarly, Laffey and Weldes (1997, 209) frame ideas as “symbolic technologies”: “intersubjective systems of
representations and representation-producing practices”, means of representation that allow agents to frame and
reframe the world, discovering and revising as they go. Laffey and Weldes draw the term from Greenblatt (1992),
revising his usage. They do not use the term “tool”, preferring a Marxian metaphor of ideas as capital.
\textsuperscript{75} Carstensen derives the term from Swidler’s alternative sociological account of culture as skills, habits, practices,
and means of understanding with which we encounter the world. Thus, “Action is not determined by one’s values.
Rather action and values are organized to take advantage of cultural competences” (Swidler 1986, 275, emphasis
original). Culture is not simply a system of ideational constraints or blinders. Instead, it is a way of actively
managing one’s encounter with the world.
We should expect learning by doing to be more sensitive to complexity than the other two models. In Berlin’s (1997) or Tetlock’s (2005) terms, learners by doing are archetypal foxes: they have multiple, changeable ideas, none of which are systematic or all-encompassing. This cognitive flexibility permits learners to capture nonlinear changes and emergent properties, facilitating greater adaptation. However, since it is focused on the local, it is less adept at capturing aggregate, system-level phenomena. Learning by doing will tend to yield results of a more localized and piecemeal character than those offered by paradigms. Generalization happens only gradually here. This is what we see in the cases below. The concomitant advantage lies in flexibility, and in better access to the local and the practical. What is learned will tend to be specific, concrete, and doable. In counterinsurgency, this will tend to mean specific, context-dependent knowledge about strategies and tactics, generalizable only after long experience.

Since this approach is relatively unsystematic in its approach to learning, it emphasizes detail over systematic description. It is thus most closely linked to forms of local knowledge—what Scott (1998, 313) has termed *metis*: “practical skills and acquired intelligence in responding to a constantly changing natural and human environment.” *Metis* refers to the unspoken, highly specific knowledge that permits many everyday activities—riding a bicycle, for example, or traditional culinary activities—that can only be mastered in the doing. Learning by doing also parallels Michael Polyani’s (1966, 4) conception of “tacit knowledge,” predicated on the claim that “we know more than we can tell.” Among pragmatists, this approach to knowledge or learning finds parallels especially in Dewey’s (2004b; 2007) conception of education through practice. In each instance, the emphasis is on learning through ad hoc, informal, and partially unconscious mechanisms. Learning by doing is about local knowledge, which in turn is governed as much by intuition as by formal rules of inference.

Learning by doing has a strong, but still limited relationship with complexity. Complexity theory combines detail at the local level with effects derived from it that that occur only at scale. Learning by doing grants access to that detail, but offers few tools for scaling up from it. Learning by paradigm attempts to move directly to the aggregate level, describing scale in the absence of detail. This tells us little at all about complexity. In contrast, learning by doing scales up little on its own, but offers essential groundwork for eventually doing so. As I conclude below, dealing systematically with complexity requires learning in multiple ways.
Learning by doing is empirically observable largely as trial and error. It appears first in the form of mistakes. Where actions lead to unexpected outcomes, we should expect learners by doing to adapt their representations, expectations, and courses of action, accordingly. Thus, in her study of Gorbachev’s learning processes, Stein (1994) finds him conducting ad hoc policy experiments, adjusting Soviet foreign policy in response to them. The hypotheses of these ad hoc experiments came chiefly from ideas available to hand. Elsewhere, in a study of health policy, Freeman (2007) finds policymakers tinkering with a wide range of cobbled together practices and research findings, arriving incidentally at solutions. This yields not a systematic and rigorous picture of the world, but rather novel ways of grappling with it in action. In the cases of counterinsurgent learning below, this approach offers an image of practitioners and policymakers coping with policy problems on the fly. In revolutionary America, Ewald (1991; 2010) continually adjusted his representations of the emerging phenomenon of unconventional warfare. Galula (1964) arrived in Algeria with pre-formed ideas, intending to “test” them, but nonetheless spent much of his time coping and adjusting as best he could.

3.3 Learning by Simulation

Learning by doing and learning by paradigm can be construed as contrasting phenomena. One is top down, the other bottom up. One emphasizes constructive constraint, the other unstructured, ad hoc exploration. A third account differs in terms of its object of learning, dealing with the individual experience of interpersonal interaction—that is, of intersubjectivity. Simulation theory (ST) departs from the philosophical problem of other minds—of how individuals recognize and assess one another’s mental states. While it begins with individuals, it derives its account of learning from interactions between agents. Learning occurs by mental simulation, whereby individuals apprehend the intentions, perceptions, and beliefs of others by replicating their mental processes. This is learning by empathy, wherein learners apply their own mental apparatuses to their knowledge of others’ circumstances. Since much of foreign

76 Samantha Power (2002) has described the learning process experienced by the US in responding to genocide in the 1990s as a similar ad hoc process.

77 “Simulation” in this sense differs from agent-based modeling, or comparably simulation-oriented methodologies, in being derived from cognitive science and in being focused specifically on a specific set of mental activities.
policymaking requires understanding the intentions of others, simulation constitutes a potentially important mode of foreign policy learning.\(^{78}\)

ST differs from learning by paradigm not only in what is learned (here limited to the content of other minds), but also in that it posits no theoretical frameworks as guides to learning. However, ST differs sharply from learning by doing as well. Those who learn by doing learn about a wider range of phenomena, and may produce general theories as a result. Those who simulate learn primarily by mentally replicating others’ psychological states—a relatively theory-free activity. This is a mode of learning predicated on what might be termed thought experiments: Individuals model one another’s positions, learning by stepping into one another’s shoes. Since individual leaders and other policymakers must make judgments about the consequences of their states’ actions in the international system, they must often assess the thoughts and intentions of others. Simulation explains how they might be said to learn about one another’s mental states and decision-making processes.\(^{79}\) ST is not without its critics.\(^{80}\) There is nonetheless neurological and experimental evidence in its favor.\(^{81}\)

Simulation can be construed to include a range of mental activity.\(^{82}\) Knowledge of other minds is a prerequisite for a wide range of mental activities, including assessing the strategic interests of others, assessing their trustworthiness, and assessing possible outcomes on this basis, all of which are useful if not essential for foreign policymaking. When foreign policymakers deal with foreign counterparts, they must assess their interlocutors’ intentions in detail, and update their simulations as new data becomes available. Their work would otherwise be impossible.

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\(^{78}\) ST originated in cognitive science (Cruz and Gordon 2005) as a rival to so-called “theory theory” (TT). Both aim to explain how we assess other minds. TT stipulates that individuals assess others’ thoughts by deploying ad hoc theoretical accounts of their mental states. Simulationists claim that individuals instead simulate the experiences of others (Davies and Stone 1995). For a general introduction to the debate, see Carruthers and Smith (1996).

\(^{79}\) See also Mead (2009, 73, 89, 153) on “taking the role of the other”.

\(^{80}\) Gallagher (2007, 358) notes that simulation is counterintuitive insofar as we are not usually aware of simulating: if the process is endemic, it must also be frequently subconscious. The most radical developmental critiques of ST posit an innate capacity for abstract thought (Fodor 1987, 133), making theorization central to developmental cognition. There is also talk of a possible ST/TT hybrid account (Heal 1996; Perner 1996; Dokic and Proust 2002).

\(^{81}\) The neurological process of simulation finds may be conducted by so-called “mirror neurons,” which fire both when an experimental subject performs a particular action and when they observe others doing the same (Gallese and Goldman 1998). Mirror neurons have recently attracted attention in IR, as a way of assessing the value of face-to-face diplomacy (Holmes 2013). Further evidence is found under the rubric of “embodied emotion”: the claim that emotions are mental interpretations of sensory experience of bodily conditions (Niedenthal and Maringer 2009). This implies a counterintuitive causal arrow—from the expression to the emotional state, rather than the other way (Niedenthal 2007). For example, a recent study finds that Botox treatments, because they limit facial expression of emotion, may inhibit one’s ability to empathize with others (Neal and Chartrand 2011).

\(^{82}\) Debate continues about whether ST should be thought of as a heuristic or an empirically ‘true’ foundational theory. For an anti-heuristic account, see Gordon (1996).
A recent study of the late Cold War offers an example (DiCicco 2011). Ronald Reagan famously spent much of his early presidency attributing to Soviet policymakers implacable hostility toward the West. DiCicco finds that a single incident—the Able Archer 83 NATO military exercises—inadvertently helped changed this. Officials in Moscow perceived the exercises as potential preparations for an imminent nuclear first strike. American officials intended nothing of the kind. Advised of this misperception, Reagan revised his perceptions of Soviet intentions. Where he had previously viewed them as hostile and NATO as accommodating, he now saw that Moscow held similar but reversed views, seeing itself as accommodating and the West as hostile. Resolving this mirrored distortion required that both parties adjust their perceptions, stepping into one another’s shoes. New information allowed each leader to correct his mental simulations of one another. Soviet-American rapprochement in the mid- and late-1980s would otherwise have been more difficult.83

The cases below show that simulation is moderately or intermediately geared to managing complexity, dealing with one form of complexity but not others, and offering few tools for scaling up. It undertakes knowledge of extremely complex systems—the minds of others—but assesses those systems only, offering rigorous knowledge of little else. It focuses on complexity, but only of one kind. Like learning by doing, it offers access to local complexity, but tells the learner little about how to generalize from it. To the extent it permits generalization, it does so with reference to other minds only. Since minds are necessarily localized, scaling up remains difficult. Among pragmatists, it is linked to the pragmatic emphasis on knowledge residing in consensus. A consensus-based conception of knowledge presumes knowledge of other minds—knowers or learners could not otherwise make sense of the intersubjective basis for their beliefs. So construed, a pragmatic theory of learning both permits simulation, in the sense of providing a philosophical basis for it among other ways of learning, and requires it.

Simulation should be empirically visible in a number of ways. First, individuals may justify their decisions by referencing what they take to be the judgments of others. Statements of the form, “If I were him, I would…” strongly imply a process of simulation at work. Second, however, judgments lacking this explicit grounding in simulation may still exhibit counterfactual

83 Similar errors recurred before and during WWII: successive misperceptions of Hitler’s aggressive intentions by Chamberlain and Stalin can be understood as failures to of simulation. In both cases, failures to usefully simulate become failures to learn.
traces of it. Individual assessments and decisions may in some cases have been impossible without a nuanced understanding of an interlocutor’s thoughts and intentions, and thus simulation. For example, analysts who understood Khrushchev’s peasant roots had little difficulty accounting for his pounding a lectern with his shoe at the UN, in 1960. Western observers who could not accurately see things from his point of view found his actions puzzling or frightening. Third, and inversely, we may look for simulation in errors of judgment. Failures lay processes bare, allowing us to see them at work and diagnosing their strengths and weaknesses. By analyzing errors of interpersonal judgment, we can identify cases of failed simulation and thus failed foreign policy learning (as in the cases of the Cold War or WWII, above). Finally however, and perhaps most straightforwardly, simulation is visible in emulation. When one policymaker emulates the policies of another, he or she discloses that he understands their intentions—that is, the effect their policy is intended to have, and which the emulator intends to replicate. Emulation, however, is not reducible to mimicry. Instead, emulation involves mental simulation as causal reasoning. The emulator must understand that the person he or she is imitating not only takes an action and produces an effect, but also how they intend to bring about that effect. The emulator must stand in the shoes of the person imitated and understand their causal reasoning. Emulation is not parroting: it is imitation with intent. We see this when simulators are able to deploy the emulated actions in new contexts, or in combination with other actions.

In counterinsurgency, learning by simulation will consist in replicating the beliefs, intentions, and decision-making processes of one’s opponents in asymmetric war. In historical counterinsurgency manuals, simulation is perhaps most visible in errors. Ewald (1991) failed to recognize the tectonic shift in America toward popular, patriotic revolutionary war, thereby misreading the intentions of the American revolutionaries. However, Ewald gradually came to recognize the intent and effect of revolutionary irregular strategies and tactics. He set out to emulate them, and to teach others to do the same. Galula, having internalized the strategic and political thinking of East Asian communist guerrillas, persisted in this reading of his opponents’ interests and beliefs where it no longer applied. That said, successes are visible in the historical record as well. In South Africa, Callwell (1906, 31) recognized that the Boers, who were

84 Counterfactuals are, inevitably, controversial. For a canonical assessment, see Fearon (1991).
85 The incident is well known. For discussion from the Soviet perspective, see Kalugin (2009, 36–38).
culturally European, were different from other colonial opponents (although this little impacted his actions). In Algeria, Galula inferred that the relatively oppressed women of his district were potential allies (Galula 1963a, 105). In each instance, empathy was a precondition for learning.

4 Complex Learning in Counterinsurgency

My claim above has been that some foreign policy problems present themselves as complex: nonlinear, emergent, and adaptive. Such problems require that policymakers have distinct learning abilities. I argue that individuals learn in multiple, procedurally distinct ways. I have detailed three. Different ways of learning will vary in their capacity to deal with complexity. They will be most capable of doing so when combined.

These claims call for empirical evaluation. I offer it in the context of individual learning in counterinsurgency. Irregular warfare provides an especially complex policymaking environment, in which adaptations by policymakers must be swift and flexible. Insurgents are unpredictable opponents, who leverage surprise as a basis for tactical advantage, and who adopt decentered organizational structures, in order to maximize flexibility and adaptability. Counterinsurgency offers an especially strong opportunity to evaluate learning, since historical scholar-practitioners of counterinsurgency learned to conduct irregular wars in a strikingly wide variety of ways. Counterinsurgency is often referred to as if it was and is a single strategic and tactical package—a fixed and unified approach to asymmetric conflict. However, counterinsurgency has a history, over which it changed significantly. Historical approaches range from carefully targeting “hearts and minds” (Thompson 1966; Galula 1964) to employing trenchant, expansive, and even arbitrary violence (Callwell 1906; Downes 2007). In IR, most research to date on insurgency has focused on explaining conflict outcomes. However, the approaches taken to counterinsurgency are so widely varied as to themselves be puzzling.

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86 The extant IR literature on asymmetric war focuses chiefly on what drives outcomes in asymmetric conflicts, rather than why they are fought as they have been. See especially Mack (1975), Merom (2003), Arregui-Toft (2005a), Lyall and Wilson (2009), and MacDonald (2013). While large part of the broader recent literature on the practice of counterinsurgency is concerned with learning (see for example: Nagl 2005; Ucko 2009; Russell 2010; Serena 2011), it tends to address itself to institutional learning or “learning organizations,” and to determining degrees of learning effectiveness. It thus addresses group rather than individual learning, and matters of why rather than how learning occurs. The recent policy and doctrinal literature is already too large to readily review. For points of entry, see: Rid and Keaney (2010), Ucko (2009), Rich and Duyvesteyn (2012a). For various skeptical views, see Der Derian (2008), Porch (2011; 2013), Gentile (2013).
Policymakers have learned and re-learned how to conduct it over and over again, in many different ways.  

Explaining the variety of learning outcomes in counterinsurgency nonetheless requires a ground in conceptual commonality—that is, basic definitions of counterinsurgency, and thus of insurgency itself. I adopt a tripartite definition of insurgent or guerrilla warfare (terms I use interchangeably). First, insurgency emphasizes small, mobile attacks over direct and conventional battlefield engagement. Since their opponents generally having greater resources, insurgents adopt strategies and tactics that minimize disadvantages in material strength. Second, it involves appeal to popular support. Insurgents generally identify themselves as freedom fighters: defenders of the working class, of a specific ethno-national group, or the like. As such, insurgency is a political act. While its political content may vary, some such appeal is necessary. Third, its strategic objective is not to win outright, but instead to undermine an opponent’s willingness to do so. In Arreguín-Toft’s useful phrase, they aim not at “destroying or capturing the adversary’s physical capacity to fight” so much as to “destroy an adversary’s will to resist” (Arreguín-Toft 2005a, 34). Insurgents aim to make the cost of fighting too great to bear for their enemies. As a consequence, insurgents are generally non-state actors. States generally

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87 While the policy literature on counterinsurgency is now large, little theoretical attention has been directed at the sheer fact of its variety. The history of British counterinsurgency theory and practice usefully illustrates. At the end of the nineteenth century, Callwell developed an account that emphasized a resolutely and trenchantly violent response to insurgency, endorsing village burning and generally “committing havoc which the laws of regular warfare do not sanction” (Callwell 1906, 42). The British took broadly this approach in the Boer War. Half a century later, they abandoned this approach, adopting a less violent, population-centric “hearts and minds” strategy in Malaya (Thompson 1966; Stubbs 1989), only to revert to their previous elevated levels of violence in suppressing the Mau Mau Uprising in Kenya (Branch 2009; Bennett 2013). The effect is in no way unique to the British experience. French operations in Algeria gave rise to two competing counterinsurgency manuals, both classics. Galula (1964) endorsed a methodical, stepwise approach, coupling a largely hearts and minds logic with targeted violence against insurgents. Roger Trinquier (1964) endorsed much more strenuous violence, despite having served in the same war. Since the conflicts themselves seem to underdetermine policy prescriptions, any explanation of these varied outcomes requires recourse to the learning processes by which they were arrived at.

88 This definition follows components of usages in the existing literature. See especially Arreguín-Toft (2005b, 32–33) and Lyall and Wilson (2009, 70).

89 This is borne out by practitioners of guerrilla warfare; for example, Mao’s analogy wherein the population is the ocean in which guerrillas—fish—swim (Mao 1961, 93).

90 Possibilities range from Enlightenment liberal or populist appeal to individual liberty (as in the American Revolutionary War), to appeals to class inequality (as in communist revolutionary war), to national liberation (in anti-colonial warfare), to religious extremism (as in militant Islamism). These variants do not differ in linking irregular armed struggle to the popular pursuit of these political agendas.

91 These costs may take a variety of forms, from depriving the counterinsurgent side of political support to imposing a semi-constant threat of ambush, surprise attack, sabotage, and other unconventional threats. Insurgency thus implies both political and military operations. Major guerrilla warfare manuals (Lawrence 1922; Mao 1961; Guevara 1961; Marighella 1969) are broadly consistent on this.
put to field large, regular, conventionally structured armies, aimed at conventionally direct strategic goals. Inversely, counterinsurgency consists of any and all strategies and tactics directed at opposing insurgency. It is any assembly of techniques used by the stronger and more conventional side, usually a state, to counter guerrilla warfare. I do not stipulate a specific approach, since a broad range of approaches has been used historically. The terms “asymmetric war” or “irregular war” capture the resulting conflict itself, combining the two.

Some extant accounts already treat armed conflict as complex, including both irregular war (Fellman, Bar-Yam, and Minai 2015), and warfare more generally (Beyerchen 1992; Sandole 1999). Indeed, such conceits are central to so-called network-centric warfare (Alberts, Garstka, and Stein 1999; Moffat 2003), and the “revolution in military affairs”. While such strategic innovation attempts to bring the insights of complexity to states’ armed forces, Bousquet (2008, 916) notes that “the actors that have truly excelled at adopting loose, decentralized organizational structures are the jihadist networks and insurgent movements that have tied down the net-enabled US army in Afghanistan and Iraq.”

I contend that insurgencies are complex in three respects: they are decentralized and thus nonlinear, adaptive, and (consequently) unpredictable. First, they are decentralized, employing diffuse organizational structures. An absence of central authority, and consequent hierarchy, is typical of complex systems. Insurgent groups typically operate in cells. Their larger organizational structures are more horizontal than vertical, more closely resembling networks than hierarchies. Small, autonomous units may share long-term objectives, but nonetheless operate relatively freely, choosing tactics and even strategies on their own. Such decentralization is linked to nonlinearity, as organizational structures and behaviors at scale do not reflect behaviors at unit level. Thus, second, and consequently, they are adaptive. Adaptation occurs from the bottom up, being built by individuals and cells that adapt locally. Strategies and tactics that succeed thus proliferate across the network. Autonomy permits experimentation, which in term permits organizational learning “at the edge of chaos” (Anderson 1999, 219). Third, as a consequence of decentralization and adaptability, insurgents are unpredictable. The absence of a planning center and the development of strategies locally makes their behavior emergent at the aggregate level. Counterinsurgents face a steep adaptive challenge in anticipating and opposing

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92 For a sympathetic assessment, see Bousquet (2008; 2009). For historically minded criticism, see Gray (2004).
their actions. Such features need not be understood as ontologically or absolutely complex. Rather, they constitute a heuristic understanding of insurgency as a complex phenomenon. Since we are concerned with the practical epistemology of the phenomenon—how policymakers learn about it—a heuristic is sufficient.

So construed, complexity is not unique to irregular war. However, in traditional, regular warfare, large armies, standardized through discipline and drill, minimize the unpredictably and nonlinearity of combat (Bousquet 2008, 920). In irregular war, one side (the insurgents) aims to leverage complexity to their advantage, taking the flexibility of small-scale operations as an opportunity to act unpredictably. Thus, while complexity may be a feature of warfare as such, in conventional wars, both sides seek to minimize it, so as to leverage scale and organization to their advantage. In irregular war, complexity becomes a feature not just of armed force as such, but also of the strategic and tactical choices of one side. The other, less equipped by circumstance to make use of complexity, must struggle to keep up.

These elements of complexity—decentralization, adaptability, and unpredictability—are longstanding features of insurgency. While the recent literature on insurgency has sometimes treated these features of contemporary insurgency as novel, they are in fact well trod: there is relatively little new in the recent experience of insurgency. While scholars and practitioners have noted its recent globalized linkages (Kilcullen 2005; 2009) and technological advantages (Hoffman 2013, 197), the core strategies and tactics of insurgency are centuries old. Making irregular war against the state is a longstanding, and long successful, mode of organized violence. Thus, to the extent that it can be characterized as complex, it has been so for a very long time. We should expect insurgency to exhibit these qualities across a wide range of historical contexts. Below, I find such insurgencies operating across the last two and a half centuries.

Nonetheless, while this study focuses chiefly on strategies adopted and texts written decades or centuries ago, the question of how counterinsurgents learn is of more than antiquarian interest. Since differing approaches inform wartime policy decisions, human lives and conflict outcomes are at stake. Given that insurgent victories appear to have trended up over the last

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93 Complexity has also proven useful in analysis of terrorism. Analysts have long regarded terrorist organizations as decentralized networks (Deibert and Stein 2002; Sageman 2004; Sageman 2008). Bousquet (2012) has shown that Islamist terrorist networks can be usefully described as complex adaptive systems.
century (Lyall and Wilson 2009, 69), explaining these conflict outcomes is becoming more pressing, not less—and since policy choices likely contribute to these outcomes, understanding how these policies were learned is presumably no less necessary. Additionally, many past accounts of how to conduct counterinsurgency remain influential. The current American manual (2007, 391) cites as influences both Callwell and Galula— theorists with starkly different views. While both men dealt with the problem of defeating insurgents, they brought to it different assumptions, and reached starkly different conclusions. Counterinsurgency thus offers an especially acute and pressing empirical point of entry to the broader theoretical issue of learning.

5 Research Design and Cases

My empirical task, then, is to make sense of how learners arrived at this variety of policy learning outcomes, some significantly better adapted to complexity than others. Since this is a case-based, qualitative study, its methodological specifications are relatively straightforward. The purpose is necessarily explanatory rather than predictive (Bernstein et al. 2000). I aim to understand how individual policymakers learned, rather than to anticipate what might be learned in a given context. Interactions between individual and complex policy problems are themselves too complex to permit meaningful predictions. I adopt a qualitative approach for two reasons. First, as I note in the previous chapter, the task of exploring complexity involves variety and detail to a degree not readily captured by large-N analysis. Second, evaluating learning in a detailed and nuanced way involves inferring the beliefs and intentions of learners and their interlocutors. Only close, quasi-ethnographic analysis permits the necessary elucidation of beliefs, intents, meanings, interpersonal understandings, and the like.94

I trace the three methods of learning across three cases, showing how they impacted learning outcomes. A case is an instance of individual foreign policy learning in the context of an asymmetric conflict. As such, I take as cases manuals of counterinsurgency, each written in connection with a major asymmetric war. These cases represent instances in which an individual or group of individuals learned. The manuals document learning outcomes—they are records of what the authors have learned from and through the conflict in which they served. Learning processes are documented by the histories of their emergence and writing. Two major sources of

94 On historical ethnography and its application in IR, see MacKay and Levin (2015). My approach here is not ideally historical-ethnographic in that it emphasizes individual before collective meanings and intentions. Still, the philosophical emphasis on pragmatism means that collective meanings and intentions remain in play.
information are thus relevant: those concerning the conflicts, which are the setting in which learning happened, and those concerning the authors themselves. In each case, we can refer both to the history of the wars and to the writings and biographies of the learners in question.

The authors learned out of direct exposure to warfare—experience of command or combat. The three historical authors under study here left detailed personal accounts of their wartime experiences. They also differed in their historical and military-theoretic knowledge. Callwell deployed an encyclopedic familiarity with British and other imperial small wars. Galula brought to his manual an extensive understanding of Maoist insurgency. Ewald brought a host of early modern beliefs about military life and conduct. This knowledge shaped their paradigms, contributed intellectual material for bricolage, and impacted how they simulated the thinking of their opponents. It was also linked inseparably to personal experience. Callwell served in several British imperial wars prior to the Boer War. Galula dealt directly with the Maoists in China (he was briefly interned by them). Ewald’s military knowledge was rooted in his service.

Cases have been selected largely to provide a relatively broad historical, cultural, and geographical range. Since the account draws little causal connection from one to the next, historical contiguity is not necessary. The goal is to show that the theoretical account has broad historical applicability in explaining learning within each case. Cases thus occur over more than two centuries, include wars in multiple regions, and address counterinsurgents of three different nationalities. These serve to evaluate the theory across multiple contexts, showing that it usefully explains how learning occurs in multiple instances of learning about complexity.

Across these cases, I look for the three learning methods at work in addressing three policy problem areas common to most counterinsurgency. While learners may vary in how they approach them, or in which among them they emphasize, but these general problem areas appear persistent in counterinsurgency. The three are intelligence collection, use of force, and political organization. While these do not exhaust the issues at stake, they do represent a significant cross-section of it. The first addresses the informational practicalities of war. Since gathering intelligence is a precondition for action, it represents an important point of entry. The strategies I document range from vigorous counterintelligence, including disinformation (Callwell 1906), to increasing troop contact with the local population (Galula 1964), to occasional ad hoc experimentation with interrogating prisoners of war (Ewald 1979). The second addresses the

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deployment of warfare’s central policy tool, organized violence. Some early counterinsurgency theorists recommended emulating insurgent violence (Ewald 1991; Emmerich 1789). Others locate extensive and overwhelming violence at the center of an ideal campaign (Callwell 1906). Others still insist violence must be tempered and selective, believing that asymmetric conflict is, above all else, political warfare (Galula 1964). The third addresses how to impose sociopolitical order, presumably a prerequisite to victory and peace. Ewald remained committed to the hierarchical sociopolitical structures of early modern Europe (Ewald 1979; 1991). Callwell (1906) advised as little political entanglement as possible, favoring a military solution and entrenched imperial rule, typified by racialized political hierarchies. Galula (1964) favored gradual but vigorous root-and-branch political reorganization of an occupied territory.

The approach of the empirical cases is relatively straightforward. Since the purpose is to document and explain how differing learning processes shaped outcomes in learning about a complex subject, the content of each case is largely descriptive. Each describes instances of learning, documenting them with reference to the learner’s written works and biographical record. It locates these in the three methods above, focusing on the three policy problems just detailed. The descriptions thus permit explanations addressing how each learning method, in interaction with the experience of the learner, yields the varied results we see. The chapters are structured accordingly. The three cases begin by establishing context, briefly reviewing the history of each conflict. They then introduce the learner, locating him historically and biographically. The bulk of each case traces the three models across the three problem areas. They conclude by restating what was learned and how, summarized in tables of descriptive findings, and by considering how learning processes interacted, analyzing how varied learning methods interrelated with varied experiences to produce the specific prescriptions we observe.
Chapter 3
Johann Ewald and the American Revolutionary War

Asymmetric political violence is sometimes said to be as old as war itself: so long as small bands of mobile fighters have made war against larger foes, guerrilla warfare has occurred. Historians looking for a more definite origin often cite the Spanish guerrilla uprising against Napoleon’s occupying army, in the Peninsular War (Gates 2001), or twentieth century anti-colonial and communist violence, emphasizing the Chinese or Cuban revolutions, and thus Mao (1961) or Guevara (1961). However, an earlier conflict deserves at least as much attention: the American Revolutionary War. While much of this conflict was conventional, fought by large, well-organized armies, much of it was not. American irregulars ambushed, abducted, sabotaged, and otherwise made havoc against British troops. The war, as much as any other modern conflict, gave birth to the sociopolitical-military phenomenon known as insurgency.

This early irregular war also gave rise to some of the first systematic counterinsurgent thinking. Johann Ewald, a Hessian mercenary officer who served the British for eight years in America, was among its first theorists. Ewald’s background was in the use of “light troops”—early modern, Central European soldiers, with roots in hunting, banditry, and other backwoods activities. In America, he found himself faced with an armed populace that fought both as an organized army and as ad hoc irregulars. His experience there was, in many respects, transformative. He kept a diary throughout the conflict, documenting and reflecting on his experiences. On his return to Germany, he wrote two manuals on the use of light troops in irregular war, presenting in them one of the earliest general accounts of what we now call counterinsurgency. Ewald’s works offers a unique window on how European military officers learned about insurgency, not yet explicitly named or theorized. Ewald’s experience helps us understand how military decision makers grappled with asymmetric violence before they fully recognized its novel asymmetric character.

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Following conventional usage, I refer to the “American Revolutionary War” or “Revolutionary War” throughout. “The American Revolution” refers to the broader intellectual, social, and political transformation of the period.
This chapter investigates what Ewald learned in America, and how. I find his record was mixed. Ewald learned partially or incompletely over the three policy problems I consider. As I detail below, he learned with moderate success about intelligence collection and the use of force, but less so about the imposition of political order. He thus represents a middle ground case: I find him learning a great deal more than Callwell, whom I turn to in the next chapter, but less than Galula, to whom I turn after that.

I link this moderate success to his partial or incomplete deployment of learning methods. Ewald used the range of learning methods documented above, but only imperfectly. His political belief in traditional European social hierarchies imposed paradigmatic constraints on his ability to understand American revolutionary intentions. However, in time, he approached something like a paradigm shift, as his American experiences forced a radical, if in the end incomplete, re-assessment of his foundational beliefs. Ewald also learned by doing, but did so only occasionally, solving practical problems in *ad hoc* ways, and documenting these solutions in his manuals. Lastly, he learned effectively by simulation—indeed, it was his nuanced understanding of American beliefs and intentions that gradually undermined his paradigmatic commitments. Ewald’s case thus offers us a chance to observe not just multiple modes of learning at work, but also the ways in which these modes interacted. The evidence suggests a moderate level of complexity to Ewald’s thinking. He learned in all three ways, but under significant constraints. He recognized problems as complex, and could revise his understandings of them, but innovated only limited solutions. Since he was unable to arrive at new paradigmatic commitments, his manuals offered no systematic theoretical account of insurgency as such. His prescriptions rarely rise above the level of tactics. His military performance in America reflected this. As we will see below, he succeeded moderately—more, by his own estimation, than his British superiors—but did so chiefly at a tactical level, succeeding chiefly at the level of specific engagements.

This chapter begins by briefly sketching the history of the American Revolutionary War. It then introduces Ewald and his role in the conflict. This established, the bulk of the chapter considers Ewald’s learning processes according to the three models developed above, applying each to three problems of counterinsurgency: intelligence gathering, use of force, and political order. It closes with a summary of findings.
1 The American Revolutionary War

The received image of the American Revolutionary War describes a relatively linear course of events: a list of battles, beginning at Concord and Lexington, and ending at Yorktown, with a crossing of the Delaware and a pause at Valley Forge along the way. This image is accurate, but incomplete. Much of the conflict was asymmetric, chaotic, and irregular in character: this part of the war did not occur on conventional battlefields, and can best be understood as an insurgency. In many respects its ideological foundations were radical, providing political grounding for populist irregular violence. In these respects, the war resembled more recent insurgencies more closely than is commonly recognized.

Some sense of this asymmetry can be gleaned from the armed forces themselves. The newly formed Continental Army was an ad hoc, patchwork operation. The colonies sent separate, newly formed militias, many of them formed unprompted by their members. Multiple religious denominations were represented, bringing with them differing conceptions of liberty and good political order. New England sent farmers, the South sent what amounted to landed gentry. Northern African Americans served along with slave owners from the South. The result looked to the newly appointed General Washington like chaos. He quickly found it impossible to impose the discipline of a professional European army. In its place, he could lead only through constant negotiation, cajoling, and the unity derived from a common cause (Fischer 2006, 7–30). This constrained the strategies and tactics he could employ.

The British army could not have been more different. London put to field a large, conventional army, composed of volunteers with years of service to their credit. Rapidly deployable by way of the British Navy, the British army was not the largest in Europe, but it was the most professional. Washington thought it the apex of military capacity (Polk 2007, 1–5). By August of 1776, the deployments amounted to two thirds of the British army. With the addition of hired German troops, it was the largest projection by sea of land military power by a European state in history (Fischer 2006, 33).

The German mercenaries the British hired were something else again. Referred to collectively as Hessians, for the two German states from which many of them came, they were

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employed by the British crown as mercenaries. The deployment of German troops had a
catalyzing effect on the revolution. Absolutist European monarchs had long hired foreign troops
for foreign wars. However, here they were to be used by the British crown against people who
identified as British subjects, a practice for which there was little precedent (Fischer 2006, 51–
54). Nonetheless, while the Hessians have often been understood as unprincipled soldiers of
fortune, historians increasingly take a more nuanced view (Atwood 1980). The Hessians were
career soldiers who served sovereigns (the monarchs of small German states), through whom
their services were purchased. They operated according to a code of honor, viewed themselves as
professionals, and were accountable to a chain of command.

The dynamics of the war itself were informed by these imbalances. While much of the
war was regular, a large additional portion, especially on the revolutionary side, consisted of
smaller, lighter operations. Such operations involved raiding, intelligence gathering, foraging,
ambushing, and the like. The American irregulars operated more or less ceaselessly. Selig (1994,
113) summarizes Ewald’s American experience succinctly: “Little war was continuous war.”

The Continental Army, of course, did not invent irregular warfare out of whole cloth. The
French and especially Native Americans had already made good use of irregular violence in
colonial America. Indeed, there was a long tradition of partisan or small warfare in Europe (Polk
2007, 2–4), and a distinctive form of it had emerged in colonial America (Grenier 1999). It was
in this European tradition that Ewald has his roots. However, European light troops were
broadly speaking professional soldiers, not the armed and radicalized civilians that more often
comprise insurgent bands (Selig 1994). In their European form, such troops had been recruited
from huntsmen on the estates of the landed gentry. Such men had shooting, tracking, and other
wilderness skills. Once notoriously disorganized and difficult to control, they had gradually been
regularized or formalized as parts of early modern, Absolutist standing armies (Selig 1994, 115).
They were used primarily as auxiliaries to conventional armies, participating at the margins of
regular actions, rather than operating independently. In contrast, American revolutionary

98 Moreover, while the Hessian deployment has traditionally seen as a last minute arrangement by London to
reinforce an insufficient standing army in America, recent evidence indicates that the British government had
planned it for years prior (Fischer 2006, 51–54).
99 Ewald uses the term kleiner kreig, literally “small war” or “little war.” A range of terms was in use at the time to
designate the fighters involved—the German jäger, the French chasseur (“hunter”), among others. On matters of
translation, see Selig and Skaggs (1991, 5–8).
irregulars often operated (especially in the South) apart from the regular army, on their own authority (Polk 2007, 11).

The ideological differences between revolutionaries and counterrevolutionaries influenced the conflict as well. British troops fought for the crown, Hessians for profit and professional duty. Both were products of absolutist Europe, fighting far from home and relatively isolated from the population at large. The American revolutionaries were different: “they worked within a social context” (Polk 2007, 12), on home ground, fighting for an idea. The positive content of that idea—the shape of the political order to follow the revolution—was still contested during the war. However, the negative content—a populist end to British rule—was a matter of strong consensus. This meant that much of the civilian population was implicated in the violence, in both direct and supporting roles. The line between American soldiers and civilians was vague. Those actively fighting could expect the aid and comfort of the broader population. On the counterrevolutionary side, this was much less so: troops sent from England or hired from Germany lived apart from the civilian population at large, operating in a relative social vacuum.

Two important considerations follow. First, the Revolutionary War was a revolution in the sense of an asymmetric or unconventional conflict. A professional army faced an unconventional foe that treated the civilian population as the water in which it swam. Thus, regardless of the terms used by participants, the conflict can be analyzed retrospectively using the categories of insurgency, counterinsurgency, and asymmetric war. Moreover, the irregular portion of American revolutionary strategy and tactics displayed important features of complexity: it was adaptive, unpredictable, and nonlinear, in the sense of involving many diffusely organized units that impacted British military fortunes only when viewed at scale. Second, however, the phenomenon of insurgency itself was new. Participants were forced to grapple with popularly politicized warfare, something about which history told them little. Its dynamics had to be learned as the war unfolded. Ewald’s documented experiences are thus those of someone encountering a kind of war that was in many ways new to him.

100 Even before the onset of the war proper in 1776, while many colonists continued to consider themselves loyal British subjects, organized irregular violence had begun: “Collections of colonists gathered themselves into a number of small groups… Working outside the law… they tarred and feathered would-be sellers of tax stamps, assaulted customs inspectors, dumped tea into the sea, ran blockades, coerced juries, or prevented courts from sitting. Under their attacks, administrations in the colonies virtually ceased to function.” (Polk 2007, 6)
Once the war had formally begun, and the Continental Army had taken to field, Washington planned for a long game. As one historian has it, he planned “a ‘defensive’ war in which the American army sought to hold itself together and to avoid a ‘general action,’ a large scale battle which might bring massive defeat” (Middlekauff 2007, 333). Washington termed this a “war of posts”: a rural conflict in which the weaker antagonist played for time and pursued a gradual and indirect path to victory. They fought not so much to win as to survive and wear out their opponents. Washington was not a partisan by instinct—his background was in regular warfare and his impulse was for offense. Since neither was available, he made do, not always fully understanding the advantages of populist violence: “Washington’s distrust of civilians-in-arms ran so deep as to blind him to the possibility… [He] did not dread social revolution… for he did not really conceive of it as possible” (Middlekauff 2007, 336). Nonetheless, over the course of the war, he came to recognize the utility of irregular warfare, both because the structure of the Continental Army forced it on him and because it was, in the end, effective. Irregular militiamen suppressed counterrevolutionary loyalists, provided shielding for the regular army, harassed and raided enemy forces, gathered intelligence, and generally made havoc for the British occupying forces (Kwasny 1998, xiv, 330–31, 337). In short, they played the part of guerrillas in politicized revolutionary war. This was the war the counterrevolutionaries faced, one in which:

the rebel militia was one of the most troublesome… elements in a confusing war. The militia nullified every British attempt to impose royal authority short of using massive armed force… From the British viewpoint, the militia was the virtually inexhaustible reservoir of rebel military manpower, and it was also the sand in the gears of the pacification machine (Shy 1990, 237).

British and Hessian officers were thus forced to contend with a substantially new kind of war, in which traditional European battlefield formations were often poor solutions. They had little choice but to learn alternatives.

2 Ewald in America

Johann Ewald was born on 30 March 1744, in the central German city of Cassel (now Kessel). He began his military career at 16, as an infantryman, and remained in armed service for 53 years. After more than a decade serving in Central European conflicts (and the loss of an eye in a duel in 1770), he was promoted to captain in 1774. He departed for America in May of 1776. Ewald’s long service in America was a defining period of his life. It was the subject of his only
autobiographical writing (his diary of the war) and furnished the bulk of the empirical examples used in his military manuals on small warfare (Ewald 1991; 2010). These documents were influential in their day: Clausewitz cited and endorsed Ewald (Hahlweg 1986), and the later volume was translated and used by the British in the Peninsular war (Selig and Skaggs 1991, 3).

Ewald was familiar with the formalized, European kind of partisan soldier. In Cassel, he commanded a corps of their Hessian variant, jägers. In America however, in command of these formalized or official partisans, he came up against the real thing: British-American farmers, tradesmen, and others, who had spontaneously taken up arms against British authority (Selig 1994, 115). While Ewald’s influence as a theorist of irregular violence later waned—he is today remembered chiefly as an artifact of American revolutionary history—his life and work remains a remarkable point of entry to this early period in the history of asymmetric war.

2.1 The Manuals—What Ewald Learned

On returning to Cassel, Ewald wrote two manuals. The first, his Treatise on Partisan War (Ewald 1991) expounded basic tactics for small unit irregular war. The second, his Treatise upon the Duties of Light Troops (Ewald 2010), while putatively a revision of the first, is in fact an extensive new document, offering wide-ranging additional prescriptions. Nonetheless, while the two books are quite differently structured, they share a common aim: to explain the purpose, recruitment, training, maintenance, and wartime use of light troops by European states in irregular war.

These prescriptions were chiefly tactical. As we will see below, he had relatively few abstract, strategic or grand-strategic lessons to offer. Unlike the other two authors in this study, he offers no central thesis on irregular war. Instead, his books are comprised chiefly of applied, tactical advise. He explains at length how specific weapons are best used, how soldiers should be chosen and educated for light troop duty, and how they should be used in the field. He is

101 Putatively a second edition his Treatise on Partisan Warfare (1991), Ewald’s Treatise upon the Duties of Light Troops (2010) is roughly twice as long, and significantly different. For this reason, I cite them as separate works below. The two works are, however, largely of a piece in their content, and both draw significantly from Ewald’s American experiences. His later works deal with military matters more generally, and are not in translation.

102 The terms “partisan” and “light troops” represent, in part, a difference of translation—I draw on a contemporary translation of one manual, and a translation dating from the Napoleonic Wars of the other, since these are the only English editions available. Ewald’s meaning in both instances is not partisans in the revolutionary sense, but instead jägers or chasseurs common to his own European experience.
comparatively silent on structural or strategic matters, about which he seems to have had few insights. Equally, he has relatively little to say about the establishment of political order. His concerns were almost exclusively military.

In keeping with this, he does not use the terms “counterinsurgency,” “asymmetric war,” or any of their cognates. Since modern insurgency was essentially new at the time, he could not fully appreciate the structural differences between the two belligerents that rendered the war asymmetric. Ewald viewed partisan warfare as something state armies could and should engage in. As such, his manuals are not written for counterinsurgents exclusively, but instead for any light troops who used or faced irregular tactics. The asymmetry between insurgents and counterinsurgents was not yet clear, to Ewald or to his contemporaries.

3 Learning by Paradigm

Assessing Ewald’s ability to learn by paradigm requires an understanding of his paradigmatic commitments. While Ewald left no programmatic statement of his political convictions, he clearly had beliefs about political and military practice that constituted a coherent worldview. These can be distilled from his diary and manuals. Ewald’s primary political commitments were the absolutist political values of the period. His experiences in America profoundly destabilized these beliefs.

Reus-Smit (1999, 87–89, 92–94) has usefully summarized Absolutism as an early modern intermediate political form between the ideals and structures of the middle ages and those of the modern world. Absolutist politics combined sovereign, independent states with hierarchical, dynastic rule. All social relations within the state were understood to be steeply hierarchical, from the family on up: parents were rank ordered over children, husbands over wives, aristocrats over commoners, and so on. Monarchs were at the top, subordinated only to God and ruling by divine right. The period combined the hierarchical social structures of the Middle Ages with the newly consolidated role of the sovereign state. Individual political obligations were, thus, not those of an egalitarian mass society. Rather, they were steeply stratified, along relational lines. One owed one’s superiors allegiance and service, and expected the same of one’s subordinates. Inversely, one expected leadership and support from one’s
superiors, and owed it to ones subordinates. These values were in many respects pre-modern, being descended from the feudal hierarchies of the middle ages.\textsuperscript{103}

So it was for Ewald, whose moral-political worldview can be understood in terms of a code of honor. In this respect, he typified the period: “great concern for personal honor was characteristic of all early modern Europeans” (Ruff 2001, 76). In a social context governed by hierarchical relations, adherence to or insults against honor could substantially impact social standing. Honor so conceived had roots in the middle ages, but had taken on a distinctly early modern character:

Aristocratic men still linked personal honor to chivalric, martial ideals of bravery and loyalty, as well as to a lineage representing membership of a respected family… Such concerns still defined honor for many nonaristocratic men, but for most bourgeois males and working men, honor increasingly revolved around a reputation for honesty and professional competence. (Ruff 2001, 75)

As a commoner and career officer who would eventually be elevated to the nobility, Ewald stood at the juncture of these medieval noble and modern bourgeois values, exhibiting them all by turns. He was concerned both to be martially brave and heroic, but also to be professionally competent as a soldier.

These beliefs stand him in contrast to more recent counterinsurgents. Honorable conduct within the social hierarchy was the central theme or idea of Ewald’s paradigmatic worldview. Honor and bravery (and their opposites, shame and cowardice) suffuse Ewald’s life and writing. He planned his own actions with honor in mind, and judges others according to it. It shaped his perceptions of others’ actions, and constrained what actions he saw as possible for himself. He gave voice to his commitment by way of a few lines from the poet Boileau:

Honor is like an island,
Steep and without shore:
They who once leave,
Can never return.\textsuperscript{104}

He took the effect to be particularly important for the elite or upwardly mobile, among whom he would have included himself: “every man is not a hero, and the rank and file does not think like an officer, who is spurred on to his utmost to win honor” (Ewald 1979, 338). For Ewald, honor

\textsuperscript{103} For a period political theoretical treatment, see Jean Bodin (1955). For a contemporary IR theoretic analysis of Bodin, see Reus-Smit (1999, 95–99). Bodin saw all social relations as hierarchical, with the family as the primordial social unit: a rank ordered social structure, with the father necessarily at the top.

\textsuperscript{104} Quoted by Ewald (1979, 298), in the original French.
consisted in both loyalty to one’s betters or superiors and in success in one’s duties. It meant
owing one’s superiors, and one’s sovereign, both loyalty and professional competence. It was not
enough to intend well—truly honorable servicemen achieved great things for their masters.\textsuperscript{105}
Moreover, one’s behavior in that role had to be generally ethical. This was not only a matter of
general moral responsibility, but also duty specifically to one’s superiors, upon whom one’s
actions reflected.\textsuperscript{106}

Ewald’s analysis is suffused with early modern hierarchical politics. Throughout he is
concerned with the obligations and responsibilities (“duties”) of troops in the field, and
especially those of their leaders. This cashes out especially in an emphasis on leadership: “The
main security of such troops… rests solely on the good order and precaution with which it is led.
The leader of it can never insist too much that each officer remain with his platoon to constantly
keep it in the best order” (Ewald 1991, 76). From the recruitment and training of light troops, to
their deployment in the field, the emphasis at each stage is on the role of commanders as strong
(even harsh) leaders and as models for their officers and troops:

The commander of such a corps can, therefore, never be too strict… he must, from the
first moment, take notice of the slightest irregularity… Such a commander must act as
liberally with his officers as his circumstances will permit; he must invite them often to
his table… but he ought to behave with decorum, and avoid that familiarity which too
much wine occasions, and which always ends in contempt… all his actions must in fact
be calculated to obtain the love of his officers, and make them consider themselves as
happy to be under his command. (Ewald 2010, 9–10)\textsuperscript{107}

Social hierarchy requires that respect for one’s superiors be encouraged; this in turn requires a
degree of remove. Only in this way is a well ordered military possible.

Taken together, absolutist social hierarchy and commitment to honor constituted more
than just a passing series of social expectations. They governed how Ewald expected social life
to operate, as well as his own behavior. They provided a series of assumptions about,
explanations of, and prescriptions for, social and professional military life. Ewald’s paradigm

\textsuperscript{105} Thus, after an unproductive engagement early in his time in America, he “hoped that when we met the enemy on
his way back, here he did not expect us, we could catch him off guard and get out of the affair with honor” (Ewald
1979, 20–21). Not long after, assigned a difficult task in a remote location, and given inexperienced officers and
lacking local knowledge, he reflected: “Honor was not to be gained… for what I did no one would see. But should I
suffer a reverse, I would lose my honor and the good opinion which they had of me” (Ewald 1979, 22).
\textsuperscript{106} Ewald saw his men as honorable in part to the degree that they showed him loyalty. This could reach absurd
heights, as when they insisted on retrieving from enemy-occupied ground the hat he lost in battle (Ewald 1979, 63).
\textsuperscript{107} See also Ewald’s diary (2010, 324).
shaped how he viewed the use of force, as well as how he viewed political order. It produced bonds of trust with those who adhered to the hierarchical norm and undermined them with those who did not. Perhaps most centrally, it shaped how he viewed the enemy. The American revolutionaries, in open revolt against their king, upended the absolutist hierarchical value system. The partisans he commanded belonged in the social hierarchy of early modern Europe. The American Revolutionaries aimed to overturn it. As such, their actions were necessarily dishonorable. However, as he came gradually to re-evaluate the morality of American battlefield and political behavior, he began gradually to doubt his existing commitments. This tension between expectation and experience defined what he did and did not learn in America.  

3.1 Intelligence

This was certainly true about intelligence. Ewald’s experiences in America often confounded his paradigmatic expectations, and thus his ability to form useful expectations about how to gather intelligence, and from whom. Since Ewald believed in entrenched social hierarchies of respect and obligation, the American revolutionaries, traitors to their sovereign, ought to have been dishonorable and untrustworthy. They should thus have been easy marks for intelligence collection, insofar as they were already willing to betray their loyalties. However, from the start, their behavior did not conform to these expectations. A captured American “resolutely declared that he was my prisoner but not my spy. I admired this worthy man” (Ewald 1979, 23). The pattern recurred, both in intelligence gathering and in other areas—the American revolutionaries remained obstinately loyal to their cause. Thus later, he describes his impressions of a deceased revolutionary officer in profoundly honorable terms, noting “It is a pity that this great man and courageous soldier had sullied his reputation in the history of his country through conspiracy against his king” (Ewald 1979, 209).

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108 Ewald himself believed a degree of preconception was necessary for any learning at all: “how can experience help someone who has done nothing on the theory of war beforehand? He will come back from the campaign as blind as he went into it” (Ewald 1991, 63). The theme recurs, as elsewhere, where Ewald describes an officer occupying an outpost: “It is more sense than experience, and an officer who has theory, will know how to apply it” (Ewald 2010, 58). In the early pages of his diary, he describes being “left alone for the first time with my own theory of partisan warfare, which I had acquired through much reading” (Ewald 1979, 10). Not long after, when assigned a goal but given few instructions, he noted that “I had nothing but my theory from which I could obtain advice” (Ewald 1979, 22). If the resulting strategies and tactics did not always unfold as planned—in which case he frequently found cause to improvise—it is clear that what planning successes he had would have been impossible without these prior commitments.

109 See also instances Ewald, 1979, 152.
Ewald still saw these people as subjects of the British monarch—indeed, as people to whom the King owed protection and just leadership (Ewald 1979, 25). Some Americans agreed with him, and remained loyalists. Nonetheless, American allegiance to the revolution surprised Ewald with both its frequency and its intensity.\(^{110}\) Ewald (1979, 182) noted moreover that revolutionaries were far more likely to provide false information to counter-revolutionary forces than to betray their own. Ewald recognized that their behavior could be considered honorable—it represented allegiance to a cause—but could not square this with his paradigmatic expectations of them. All of this made human intelligence gathering difficult: his paradigm prevented him from understanding both those he spied on and his potential sources.

Consequently, Ewald offered relatively little advice on intelligence in his manuals. He advised collecting intelligence on an ad hoc basis during patrols (1991, 76–77), constructing outposts to observe contested country (1991, 85), gathering information from enemy deserters (1991, 85), or ambushing readily available local elites by night (2010, 71). Neither his original manual nor the expanded version treated intelligence gathering systematically as a distinct topic.\(^{111}\) Moreover, little of what he did prescribe suggests especially sophisticated thinking on the subject, at least not as derived from his paradigmatic commitments. Indeed, he appears chiefly to have learned intelligence gathering by ad hoc experience (see section 5.1 below).

3.2 Use of Force

If Ewald’s paradigmatic commitments taught him little about intelligence gathering, they taught him somewhat more about the use of force. Much if not most of the content of his manuals is given over to comparatively lengthy discussions of recruiting and training (Ewald 1991, 67–70; 2010, 1–6), equipping (Ewald 1991, 71–72; 2010, 21–30), and deploying in the field (Ewald 1991, 75–124; 2010, 106–246) light troops in unconventional warfare. Much of this necessarily concerns the use of force. These prescriptions form the backbone of Ewald’s project. This emphasis on force is striking for a number of reasons. As the next case shows, Callwell derived his emphasis on the use of force from his commitment to British imperialism. In contrast, Ewald held no equivalent commitment to empire, nor did he share Callwell’s belief in

\(^{110}\) This was not always the case, of course—a revolutionary spy taken prisoner while behind British lines “immediately identified himself and his mission” when confronted with a British general (Ewald 1979, 45)
\(^{111}\) A short chapter on reconnaissance (Ewald 1991, 97–99), extensively rewritten for the later edition (Ewald 2010, 183–90), is the nearest thing to a sustained treatment.
the efficacy of sustained and intense violence. Instead, Ewald’s commitment was to military service as such—that is, to the duty officers and troops have in service to their sovereign. This emphasis on the use of force stemmed from a belief that those charged with deploying it had a duty to succeed. It told him that he must fight, but not necessarily how. Much of his prescription thus falls back on the traditional discipline and drill of pre-modern European armies, suitably adjusted to the practices of period light troops (Ewald 1991, 75–84, 101–12; 2010, 37–39, 66–74, 220–32). These claims dealt with the day-to-day operations of a military organization, but included little that was specific to counterinsurgency.

As in his learning about intelligence gathering, Ewald’s paradigmatic commitments colored his understanding of the enemy. In practice, Ewald often underestimated the enemy in America. Initially, he saw them simply as disloyal commoners. As traitors to their sovereign, they were morally dubious, and he expected them to be sub-par warriors. Indeed, early in the war he seems to have thought they might at any time revert to that loyalty. “[W]e had high hopes of ending the war amicably, without shedding the blood of the King’s subjects in a needless way”, Ewald (1979, 25) observed a mere seven months into his deployment, and seven years before the British defeat. He would later revise upward his estimate of the revolutionaries, but only gradually.112

Ewald’s paradigmatic commitments also caused him to persistently misperceive the intentions and convictions of the American revolutionaries. The American revolutionaries were in some respects unlike anything in European military history, insofar as they fought irregularly for a mass political project. While armed irregulars were common enough in Europe, populist ideology was not. Ewald recognized his opponents’ basic intentions—they were opposed to their sovereign—but had persistent difficulty seeing any political principle in them.

Another kind of violence, broadly defined, is worth discussion as well. Looting—the collection of spoils of war—was an entrenched and legal activity in Ewald’s day.113 In a political context in which primary moral obligations were hierarchical rather than egalitarian, and in which no discourse of individual rights had yet taken hold, military looting was broadly

112 An exception here is his assessment of George Washington, whom Ewald held in high regard throughout the war. I turn to this below.
113 Troops could collect booty in early modern warfare, and thereby enrich themselves. Indeed, this seems to have been a major incentive for Hessian troops to serve in America. While matters of degree are disputed, it is generally agreed that while all parties to the conflict engaged in some degree of looting. That being said, the Hessians were noted for doing so with distinctive zeal. See discussion in Fischer (2006, 174–77).
acceptable, and thus consistent with Ewald’s worldview. Indeed, he describes himself looting on several occasions. However Ewald also saw himself as having a duty of protection to the king’s subjects. He frequently and self-consciously reports restraint (Ewald 1979, 19, 27, 76, 92). This tension seems to have limited how much looting he was willing to do.

3.3 Political Organization

Ewald’s primary paradigmatic commitments being to a kind of sociopolitical order, his thinking on the political organization of occupied territories was deeply colored by them. While his broader concerns and prescriptions were overwhelming military, his occasional references to political order are deeply marked by his foundational beliefs.

This cashes out in part as a simple emphasis on the importance of elites. Thus, upon taking up command of a given outpost, “the most prominent people of the surrounding villages have to be sent for.” (Ewald 1991, 85) Ewald’s concern is at least in part with gathering intelligence from them, but his broader belief is that one can control a given area through its entrenched elites—he presents any established local leadership as both the most likely source of resistance and the most important point through which control can be attained. Indeed, political control can be achieved in part by holding these people as hostages: “If you are in an enemy country it will be wise to take hold of the magistrate of the town or the leadership of the monastery and to place them under guard in their homes as long as you are in the town.” (Ewald 1991, 91) Ewald assumed the population at large will be loyal to their leadership: subdue those in charge and the rest would fall in line. This is consistent with Ewald’s hierarchical view of absolutist politics, wherein one’s primary political obligations are to those in charge.

This political hierarchy, however, imposed obligations not just to those above, but also below. Sovereigns, and their agents, were seen to be responsible for the care and wellbeing of their subjects In America this occurred as frequent—and sometimes striking—concern for the hearts and minds of the population. Such concerns are a recurring theme of Ewald’s diary. They

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114 Looting was related to, but distinct from, the practice of foraging. Armies of the time generally fed themselves either by buying provisions individually, by having their pay docked in exchange for rations, or by extracting food from the surrounding population (Lyall and Wilson 2009, 73–75). Ewald recognized both practices, and distinguished them from one another.

115 When the vicissitudes of war prevented him from carrying it out, he recorded the fact, and clearly viewed it as political failure on his part and on the part of the British cause more generally (Ewald 1979, 130, 134). Here again, the contrast with Callwell is striking—Callwell saw violent excesses against a restive population as an effective tool for suppressing insurgent violence. I turn to the psychology of Ewald’s reasoning on these matters below, under learning by simulation.
served to put a check on excesses of various forms, including generalized or unconstrained violence.\(^{116}\)

Ewald’s primary political commitments were deeply conservative. He was dedicated to the service and maintenance, and where necessary the restoration, of an older political order. Ewald lived to see absolutist political hierarchy pass into eclipse, with the rise of European nationalism following the Napoleonic wars. In America, however, these beliefs ran up against a more populist alternative for the first time. To the extent that Ewald developed a clear and specific account of how to organize and secure the politics of an occupied territory, it was to re-impose and reinforce traditional sociopolitical hierarchy.

### 3.4 Toward a Paradigm Shift?

Ewald’s eight years in America challenged his paradigmatic commitments. A nuanced and sympathetic understanding of armed popular insurrection was substantially incompatible with his political views. Faced with prolonged exposure to it, those views began to destabilize.

Ewald significantly revised his understanding of the American revolutionaries themselves. They struck him first as deplorable, as when early on he discovers that the dwellings of the loyalists in the entire vicinity of Tarrytown and White Plains [New York] had been set on fire… I was so enraged over this incendiaryism that I decided to follow the enemy farther than I should have, in order to get my hands on some of these home-burners, whom I was willing to throw into the flames of the burned houses. (Ewald 1979, 14)

Moral indignation aside, Ewald took the revolutionaries to be an unprofessional, ragtag lot, who were consequently unprofessional and lacking in the moral attention to duty and social hierarchy befitting soldiers. Slowly, however, Ewald began to see these very qualities—those of an irregular revolutionary army—as advantages. By the war’s end, he was impressed by the Americans’ commitment to their cause, and their willingness to serve against odds and under poor conditions.

The effect is also visible in Ewald’s changing assessment of the English. During the voyage from Europe, his unit stopped briefly in Plymouth, where the large British military and naval facilities, he thought, “reflected the greatness and wealth of England” (Ewald 1979, 6). The

\(^{116}\) This differentiates Ewald sharply from Callwell, who saw the psychological effects of arbitrary violence as central to any effort to defeat insurgency (see below).
assessment reflected Ewald’s view of Britain as an honorable great power of the age, an empire many times larger than his homeland. Eight years in America changed his assessment of the British military establishment profoundly. Indeed, Ewald frequently second guessed the judgment of his English superiors (e.g., Ewald 1979, 34, 87, 157, 227–40). In one instance, he observed a superior officer leading his men through a narrow canyon, inviting guerrilla ambush from above (Ewald 1979, 79). Later, during the siege of Charlestown, an English officer neglected to maintain proper communications channels with the besieged city, not for any clear strategic reason, but because “The rebels do not deserve this” (James Moncrief quoted in Ewald 1979, 230). The English had concluded that revolutionaries differed from a European army only in being inferior to one. Such incidents fueled Ewald’s nascent, but never complete, belief that the revolutionaries constituted a new and distinctive kind of enemy—an understanding the British never entirely shared. He came eventually to view the English army as poorly disciplined, and the British officer class as lazy, arrogant, and ineffectual (Bereiter 2002, 20–25).

Ewald’s views, however, never changed entirely. His manuals, written years after the war, continued to reflect the hierarchical politics of absolutist Europe, and continued to emphasize the language of honor and fealty. His thought remained suspended between immovable underlying beliefs and contrary empirical evidence. Thus, in some respects, Ewald remained an early modern European absolutist. At times however, his admiration for the revolutionary cause became difficult to repress. After the war, Ewald was granted permission to visit the revolutionary military installation at West Point. The troops he saw there made an extraordinary impression:

The men looked haggard and pallid and were poorly dressed. Indeed, very many stood quite proudly under arms without shoes and stockings. Although I shuddered at the distress of these men, it filled me with awe for them, for I did not think there was an army in the world which could be maintained as cheaply as the American army… What army should be maintained in this manner? None, certainly, for the whole army would run away.—This, too, is part of that “Liberty and Independence” for which these poor fellows had to have their arms and legs smashed.—But to what cannot enthusiasm lead a people! (Ewald 1979, 355)

117 Moncrief thus “would come off badly against any other army in Europe, and… would not capture a dovecoat in a European war” (Ewald 1979, 230).
118 Early on, he was advised to take few risks, as “One jäger is worth more than ten rebels” (Carl August Wreden, quoted in Ewald 1979, 18).
That “Liberty and Independence” of “a people” was the foundation of the modern political order to which Ewald himself never belonged. He nonetheless recognized it for the remarkable and novel military and political achievement it was.

4 Learning by Doing

While Ewald’s theoretical and practical commitments were deeply informed by preconceptions, they under-determined many aspects of counter-revolutionary operations. Ewald’s honor-driven commitments told him loyal military service was important, and constrained how force could be used, but told him little about the specific implementation of it. They imposed constraints on his approach to intelligence, but told him little about how to collect it. Learning these things required practical experience—thus, Ewald was compelled to learn by doing.

Ewald learned frequently from ad hoc experience, and thought of himself as someone who did so. His learning by doing exhibited two distinct patterns. First, where his preconceptions provided foundations but lacked practical details, Ewald improvised and experimented solutions. Second, however, as his paradigmatic commitments began to destabilize, he improvised more broadly and ambitiously, seeking out solutions he might once have thought impractical or improper, or that he would more likely not have considered at all. As he noted midway through the war, “everything is learned from necessity; it is the best teacher” (Ewald 1979, 168). The exigencies of his circumstances drove him to revise his attitudes and practices again and again. Ewald’s ad hoc experimentation and other experiential learning slowly but significantly transformed his thinking.

4.1 Intelligence

Ewald’s paradigm told him little about how to gather intelligence. However, he was at least occasionally an effective improviser in intelligence gathering, devising novel means to extract information from rebels and coax it from others on the fly.

For example, Ewald’s manuals make no systematic reference to the use of sources or informants, and his paradigm offered little basis for doing so. In practice however, he found them quite useful from the early stages of the war:

120 “I had made it my principle to be strengthened in opinion by sight and experience,” Ewald (1979, 126) wrote in his diary.
Early on the morning of the 26th we were informed by a Negro, who had been caught by our patrol, that an enemy corps stood in the vicinity of Newark, and also that there was a plantation situated an hour away which was not deserted by its inhabitants... We surprised the inhabitants so thoroughly that none could escape, and after a few threats, the lady of the house admitted that several detachments of the enemy had been there during the previous night and had inquired about the English army. (Ewald 1979, 20)

This additional practice of extracting intelligence under duress recurs in his diary. Soon after, on capturing a group of the enemy by a riverside, he pressure one of them violently. “I threatened the man with death unless he told me whether or not the water could be crossed above or below the bridge, and he admitted it would be possible on both sides” (Ewald 1979, 23).

Sometimes threats worked best when coupled with deceit. At one point, having gained access to a plantation by presenting himself as “an adjutant of General Lee”, Ewald went on to threaten his American hosts in the following terms: “Sir, I am a Hessian!... Your whole courtyard is occupied by jägers. If you don't do what I want at once, I shall set fire to everything, but if you do, all your property shall he protected” (Ewald 1979, 26). The plantation owner surrendered, only to learn later that Ewald had arrived under-manned, and a great distance from the bulk of his army.

Ewald’s sources also included loyalists who came to him willingly, and who were often useful sources of local knowledge (Ewald 1979, 84, 141), and in one case a German nobleman who had settled in America (Ewald 1979, 77).

Sometimes what intelligence Ewald could acquire served to indicate how precarious the British relationship with the civilian population had become. A professed revolutionary sympathizer offered intelligence (after Ewald declined to loot his home), revealing enemy troop movements. Washington had arrived within a few miles of the English encampment, yet his movements had otherwise remained secret because

the entire country side was devoted to him, no person except this honest man would let us know it. We could not learn much from our patrols because they were constantly betrayed by the country people and attacked, and did not dare to venture farther than they could get support.” (Ewald 1979, 93)

Ewald’s experience paralleled that of many later counterinsurgents, who found that conventional military control of an area was worth relatively little when the population was tacitly hostile.

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121 This did not always work. Indeed, Ewald seems to have thought his opponents the more honorable for refusing to inform him under duress (Ewald 1979, 23).
122 Captured prisoners continued to supply useful intelligence. Not longer after, a revolutionary scout revealed a planned surprise attack by Washington (Ewald 1979, 45).
Experience thus taught Ewald about how to gather intelligence—both how to gain it from the population and how precarious that relationship with the population could be. However, it could also prove inconsistent: in one instance, he threatens a man with death, and was rewarded with information about movements of irregulars; later in the same action, a captured American refused outright to inform on his peers (Ewald 1979, 23). Later, reports conflicted on American naval movements on the Delaware River, and Ewald found nothing to do but ride there himself and observe them (Ewald 1979, 35). In a subsequent incident, a German nobleman who was captured fighting with the Americans offered intelligence, and asked to be returned to Germany rather than exchanged for British prisoners (Ewald 1979, 77). Indeed, bad and inconsistent information were a recurring problem: “One never gets true information from the enemy. Each step that one takes is soon betrayed” (Ewald 1979, 182).

Perhaps because of this inconsistency, intelligence gathering found little place in Ewald’s manuals on small warfare. This may also have owed to a more general disinterest in intelligence, which was typical of the period—European states did not yet have autonomous intelligence bureaucracies. While current scholarship often locates informational asymmetries at the heart of insurgents’ advantages in irregular war (e.g., Lyall and Wilson 2009), Ewald seems not to have seen things this way—for him, intelligence was apparently a comparatively peripheral matter. Intelligence continued to inform Ewald and his men of revolutionary troop movements (e.g., Ewald 1979, 80). However, these concerned the regular revolutionary army, not the irregular militia that operated outside it. Moreover, the revolutionaries successfully gathered intelligence of their own, often with damaging results. Ewald came to know well how to gather military intelligence, and yet he seemed not to think it worth reporting how to do so.

4.2 Use of Force

Ewald continued to think (and record in his diary) strategies in terms of troop formations, occupying and holding territory, and the like. Partisans persisted in harassing his men, and the British army more generally. Indeed, Ewald was on the receiving end of ambushes almost from the moment of his arrival in America (e.g., Ewald 1979, 9, 52, 62, 76, 77, 80, 144, 181–82, 270–

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123 See, for example, Ewald (1979, 130, 158–59). On Washington’s intelligence policy, see Halverson (2010). On British intelligence gathering during the war, see Kaplan (1990).

124 There are exceptions. Ewald’s second manual does credit his American experience with both teaching him the unreliability of local populations in a theater of partisan war, and also the ease of buying them as informants (Ewald 2010, 109).
They went on for years. Eventually, Ewald learned to conduct ambushes of his own, a practice he describes undertaking nowhere in the first three years of the war, but conducted with some frequency thereafter (e.g., Ewald 1979, 121, 123, 141, 165–66, 178–79, 208, 210, 267, 285, 288, 323, 330). These did not always succeed, and he learned to conduct them only by gradual trial and error. 

Ewald thus spent much of his time in America revising upward his estimation of the revolutionaries. His approach to force had to be adjusted accordingly. After Washington’s crossing of the Delaware and capture of Trenton (circa Christmas, 1776), Ewald was forced to adjust in response to experience: “Thus had times changed! The Americans had constantly run before us… now we had to render Washington the honor of thinking about our defense. Since we had thus far underestimated our enemy, from this unhappy day onward we saw everything through a magnifying glass” (Ewald 1979, 44). Much of Ewald’s learning by doing about the use of force concerned the nature of the insurgent enemy. He had assumed a poorly resourced, poorly organized, and generally dishonorable enemy would be easily defeated. Experience gradually taught him otherwise.

Occasionally, Ewald learned from trial and error self-consciously and in detail. In October of 1777, we find him enumerating the errors of an attack on a fort, cataloguing tactical shortcomings and explaining (chiefly to himself, presumably) how these might be avoided were the attack replayed. He identified two errors. First, he and his men announced themselves rather than attack by surprise. Second, their two-pronged attack was poorly executed, with the bulk of forces on the wrong flank (Ewald 1979, 102). These lessons themselves were in many ways prosaic and locally specific, but he learned meaningfully from the experience. It was though such incidents that Ewald came to question the strategic and tactical judgment of his English masters, who seem to have learned less quickly. His diary documents detailed accounts of their errors, and how they could have been avoided (e.g., Ewald 1979, 183–86, 227–40). He learned from others’ errors as much as his own.

Some of this found its way into Ewald’s manuals. The parts of the manuals addressed to direct military engagement are shot through with examples from the Revolutionary War. Ewald’s

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125 Sometimes these efforts also resulted in gathering intelligence from captured rebels. He also learned to prevent rebel ambushes—or, at any rate, had some success in doing so (Ewald 1979, 128, 143).
126 Ewald was in the area at the time of the events, and recounts details of the capture, but was not himself among the Hessian troops whose garrison in Trenton was captured.
first manual offers advice for ambushes drawn on his American experience (Ewald 1991, 117–19). These expanded significantly in his second work (Ewald 2010, 190–220, 46), accompanied by examples from European history. Much of his discussion of troop movements, patrols, and other matters of basic military practice is also illuminated with references to the American war (Ewald 1991, 75–84; 2010, 106–140), as is discussion of the rather more irregular practice of raiding—a practice at which he improved his skills by imitation of the Americans (Ewald 1991, 101–112). Finally, he modeled his account of how to retreat before the enemy on Washington’s actions of 11 September 1777, the careful planning of which Ewald credits with saving the American army from disaster (Ewald 1991, 123).

We can conclude then that, while Ewald acquired many of his foundational beliefs about the use of force (when and against whom) from his paradigmatic commitments, he learned much besides by doing. Since the practical exigencies of violence in the Revolutionary War diverged sharply from his early modern European paradigmatic expectations, the resulting package of prescriptions was something of a pastiche: a mixture of hierarchical values and revolutionary techniques. As we shall see in section six, below, this mixing was made possible in part by his detailed assessments of the thoughts and motivations of his opponents and of the civilian population. However, in the long run this absence of reliable paradigmatic commitments contributed to his manuals’ lack of theoretical consistency.

4.3 Political Organization

If Ewald learned somewhat successfully about the use of force in America, he seems to have learned little about how to organize a territory politically. This was for at least two reasons. The first was practical: he spent little time in charge of any remotely political operations. His experience was quite different from later theorists, such as Galula or recent American counterinsurgents, who oversaw local or regional political operations. Little practical experience necessarily made for little experiential learning. The second however, was tied to his paradigmatic commitments. Since Ewald remained committed to the political values of absolutist Europe, he could imagine little beyond re-imposing the values of the British monarchy on American soil. He thus sought little other than ways to do so. By the war’s end, he had learned to

127 Compare Galula, who spent almost two years commanding locally at the sub-district and then district in Algeria (Galula 1963a), or David Petraeus, who was governor of Mosul during the early stages of the Iraq war (Petraeus 2006).
recognize and respect the values of the American Revolution, but not to share them. In short, one form of learning appears to have curtailed the other.\textsuperscript{128}

Because of this, Ewald learned by doing about politics in America only by chance and at the margins. Some of these practical observations concerned the constraints insurgency imposes on political order. Ewald frequently found reason to distrust the population at large, who were often loyal to the rebels, whether or not they admitted it (e.g., Ewald 1979, 93, 242). Were that not enough, the distinction between revolutionary and civilian was often entirely unclear, as the population at large aided and armed the militiamen in the bush (e.g., Ewald 1979, 182, 242). He came gradually to recognize this made for war in which it was often difficult or impossible in practice to know who was politically reliable (Ewald 1979, 338). Moreover, governance often seemed beside the point to him, as when he found farms or whole villages and towns abandoned or burned (Ewald 1979, 197, 274)—property having been destroyed not just by counterrevolutionary soldiers targeting rebels, but also by revolutionaries targeting loyalists (Ewald 1979, 14).\textsuperscript{129} Since much of the countryside spent much of the war in rebel hands (Murray 2012), much of the territory through which Ewald passed had either a hostile population or an absent one. Much of what Ewald did learn about politics in America is best understood as assessment of the intentions and motivations of others—that is to say, simulation (see section six). However, much besides was a matter of trial and error, arrived at through ad hoc, happenstance experience.

Gradually, Ewald recognized a need to take seriously what we might now call hearts and minds. Field experience taught him the need to protect the population from rebels. Ewald intuited some of this from the outset of his deployment. However, experience compounded the effect. Thus, early in 1778, he found that

\begin{quote}
the enemy carried on his recruiting in a forcible manner such as could be practiced only under a despotic government. They had hung up several fathers in front of their houses for letting their sons escape.—The friends of the revolution excuse this tyranny by saying that liberty for all must be forced on a few by despotism.—The Americans have never experienced this kind of recruiting under the gentle yoke of the English government. (Ewald 1979, 122)
\end{quote}

\textsuperscript{128} Ewald was not alone in experiencing this. Callwell’s experiential and intersubjective learning was sharply constrained by his imperial worldview (see next chapter).

\textsuperscript{129} Indeed, Ewald is not always clear on who was doing the burning (1979, 22).
This might have offered an opportunity to exchange loyalty for protection. However in practice, as Ewald came to know well, it was precisely the protection of this “gentle yoke” that British were failing to provide to potential loyalists. A few months later, the point was reinforced by a group of revolutionary sympathizers, whom Ewald (1979, 134) describes as saying that “our army was unable to protect them—we only ran back and forth through the country and devastated it.” This central insight of what would later become known as population centric insurgency and counterinsurgency—that violence targeting the enemy often served to antagonize the noncombatant population at large—was plainly observable on the ground. Nonetheless, Ewald seems to have learned little systematically from this experience, lacking paradigmatic assumptions upon which to build a general claim about the matter.

Ewald seems to have recognized from experience that looting, however normatively tolerable at the time, was counterproductive. Not only was it an ineffective use of armed force in the pursuit of victory, it undermined intelligence gathering and destroyed the political bonds that might otherwise have been rebuilt between the British crown and the colonists (Ewald 1979, 159). Understanding why this was so required simulation—sympathy with the plight of the civilian population. However, Ewald learned simply that this was the case by doing, observing the consequences of looting and restraint.

Importantly, these insights found little place in Ewald’s manuals, likely because they were largely inconsistent with his paradigm. To the considerable extent to which he remained committed to his early modern political values, he was unable to systematically integrate these ideas into his thought. Ewald could see the proverbial trees, but not the woods—a general theoretical statement of these matters was beyond the scope of what he could rigorously and systematically think.

5 Learning by Simulation

Ewald learned most effectively by simulation, acquiring knowledge useful in addressing multiple policy problems. He did so despite significant barriers to learning. In America, Ewald was in a culturally, politically, and linguistically foreign country, one he often found strange or confusing. His interpersonal interactions in America fall readily into three broad categories—with the British military, with the revolutionaries, and with the noncombatant colonial population.
Ewald’s changing view of the British has already been discussed above (see 3.4). He initially thought well of Britain in general, and seems on arrival in America to have broadly respected his English superiors. However, this soon shifted, as he came to hold a quite generally negative view of the British officer class: “On every occasion during this war, one can observe the thoughtlessness, negligence, and contempt of the English toward their foe” (Ewald 1979, 183). From a simulationist perspective, this assessment is interesting in two ways. First, it finds Ewald stepping into his British superiors’ shoes, assessing their thinking. Second however, it evaluates their own acts of simulation, as they assessed the thinking of their revolutionary enemies. Only in so doing could Ewald pass judgment on them. In at least some respects, they gave him good reason to do so. In January, 1781, he reported the conclusion of an expedition that “greatly resembled those of the freebooters, who sometimes at sea, sometimes ashore, ravaged and laid waste everything. Terrible things happened on this excursion; churches and holy places were plundered” (Ewald 1979, 269). By this time, Ewald understood well the consequences of violently antagonizing the population at large, and had little tolerance for it.

If Ewald’s estimation of the British declined, his assessment of the Americans rose significantly. Where they first seemed merely to be violent and dishonorable men, in immoral revolt against their king, they eventually came to strike him both as cunning and effective fighters, and as responding to a legitimate moral impulse. They were, in short, worthy opponents. As we shall see in the chapters below, no other theorist in this study went through so dramatic a transition in his assessment of his adversaries.

Ewald’s experience of the noncombatant colonial population also changed, but was more complex. He seems to have arrived believing most of the population would be loyal to the British crown. He gradually learned many colonists were not. He also learned a guarded respect for, if not approval of, the revolutionary project itself. His understanding of their thoughts, motivations, and actions became increasingly nuanced as he interacted with them.

Ewald’s complex and often contradictory interpersonal assessments are on view in his account of one of the war’s most controversial figures: Benedict Arnold. Ewald served under Arnold for more than a year, beginning shortly after Arnold’s defection to the British. Ewald initially took the defection as good news for the counterrevolutionary cause: “He was truly a great loss for the united provinces” (Ewald 1979, 249). He went on to revise his estimation of the
man sharply downward. He eventually assessed Arnold’s character and worth as an officer with the harshest language anywhere in his diary. It is worth quoting at length:

His dishonorable undertaking [the attempted surrender of West Point to the British], which, had it succeeded, could have actually turned the war more favorably for England, nevertheless cannot be justified, for surely self-gain alone had guided him, and not remorse for having taken the other side. If he really felt in his conscience that he had done wrong in siding against his mother country, he should have sheathed his sword and served no more, and then made known in writing his opinions with his reasons. This would have gained more proselytes than his shameful enterprise, which every man of honor and fine feelings—whether he be friend or foe of the common cause—must loathe.

Gladly as I would have paid with my blood and my life for England’s success in this war, this man remained so detestable to me that I had to use every effort not to let him perceive, or even feel, the indignation of my soul. (Ewald 1979, 295–96)

Here we have both sides of Ewald’s thought at once. His condemnation of Arnold is clearly a matter of honor—treason could never be honorable. And yet, the more honorable course here would seem to have been loyalty to the revolutionary side, of which Ewald could not approve. Ewald’s political ambivalence about British officer conduct, and by extension the conduct of war as such, cut to the heart of his thought, opening divisions in the foundations of his judgment. More than anything, it was these shifting and unstable character assessments of others that destabilized his paradigmatic commitments.

5.1 Intelligence

On its face, simulation seems an important component of intelligence gathering, insofar as acquiring and interpreting intelligence requires assessing the thoughts and intentions of other human beings. However, because of the contextual barriers Ewald faced (language, culture, etc.), Ewald’s learning by simulation about intelligence was deeply bound up with his shifting paradigmatic commitments. He initially held a critical view of the revolutionaries. However, his experience did not bear this assessment out: these dishonorable traitors to their king refused obstinately to behave in a dishonorable way. Thus, we have Ewald’s encounter with a rebel taken prisoner, who refuses to act as his spy, cited above (“I admired this worthy man” Ewald 1979, 23). Elsewhere, he could view a deceased rebel as a “great man and courageous soldier,” despite having “sullied his reputation in the history of his country through conspiracy against his king” (Ewald 1979, 209). This was in line with the gradual shift in Ewald’s thinking, as he slowly but surely reassessed both those he fought and their civilian supporters.
As we have seen however, his manuals offer little systematic advice for intelligence gathering. What there is concerns primarily reconnaissance, rather than human intelligence (Ewald 1991, 97–99; 2010, 183–90). Ewald’s discussion of managing an outpost makes passing reference to the need to make spies of the locals whenever one can (Ewald 1991, 85), and some human intelligence gathering appears intended to result from his brief account of how to manage an occupied town, which in turn draws on a very brief account of the mindset of those under occupation (see 6.3, below). However, he offers no more specific and substantive advice on how this might be done.

5.2 Use of Force

Ewald learned more about the use of armed violence by simulation than about anything else—and perhaps learned more about use of force in this way than any other. His injunction to emulate the enemy—to learn partisan warfare from revolutionary partisans—is central to his counterinsurgent thought. This inevitably involved simulation, insofar as systematic emulation requires an assessment of the thoughts, intentions, plans, and other cognitive activities of those being emulated. This proved difficult. The American revolutionaries had set out to implement something strikingly new: a politics of egalitarian liberation, based on freedom from the encroaching power of the British sovereign, and arrived at by irregular, revolutionary violence. This radically rejected the political and military circumstances from which Ewald came. As such, their motivations and strategic calculations were largely beyond Ewald’s grasp. His response was to attempt something we might now see as implausible for a counterinsurgent: he set out to emulate his insurgent enemy.

Ewald came to see the revolutionaries as tactically quite effective. As his estimation of them rose, he sought to learn what he could from their actions:

During these two years the Americans have trained a great many excellent officers who very often shame and excel our experienced officers, who consider it sinful to read a book or to think of learning anything during the war. For the love of justice and in praise of this nation, I must admit that when we examined a haversack of the enemy which contained only two shirts, we also found the most excellent military books translated into their language… Moreover, several among their officers have designed excellent small handbooks and distributed them in the army. Upon finding these books, I have exhorted

130 See discussion in Bailyn (1992). For an IR theoretic analysis of these values, see Deudney (1995).
131 It may be worth emphasizing that this is strikingly unusual in the history of counterinsurgency. No other theorist under discussion in this study makes such claims, other than perhaps in the most passing ways.
our gentlemen many times to read and emulate these people, who only two years before were hunters, lawyers, physicians, clergymen, tradesmen, innkeepers, shoemakers, and tailors. (Ewald 1979, 108)

Here we find much of Ewald’s disposition during the middle years of the war. His hierarchical understanding of social order had been disrupted. He recognized that the men he faces had achieved something remarkable, but did not recognize it as a genuinely new form of warfare. His impulse was to replicate it. If a ragtag army of revolutionaries in a remote colony could succeed in this manner, then surely the troops of the mighty sovereigns of Europe could as well. Ewald began to imitate insurgent tactics. He learned, for example, to conduct ambushes (Ewald 1979, 121, 123, 141, 165–66, 178–79, 208, 210, 267, 285, 288, 323, 330). Some of this involved trial and error (see 5.2, above). Still, the emphasis on the practice of ambushes as such can only have been due to his having been on the receiving end of them so frequently, and to understand the reasoning of the American partisans he faced. Like all emulation, this required simulation: mental replication of the intentions of those being emulated.

Why did Ewald succeed as a learner-by-simulation about this problem, but less so about others? What he learned in this way was largely compatible with what he already knew about partisan war. While the politics of the American partisans were foreign to him, their strategies and tactics were improvements on or radicalizations of the methods of light, mobile warfare he already knew. Since ambushes, raids, and the like, were already included in his professional toolkit, expanding upon them by borrowing from others came relatively easily. By contrast, collecting human intelligence required close interactions with the population, and thus an ability to convince or cajole people he had profound difficulty understanding. Similar barriers faced his attempts to learn this way about politics, as the next section shows.

5.3 Political Organization

Ewald learned little by simulation about how to impose political order on an occupied territory, for two reasons. First, whatever respect he had for the American revolutionaries, he remained ethically committed to his foundational belief in early modern political order. As such, their thoughts, beliefs, and intentions remained foreign to him, beyond the reach of his ability to consistently understand. He could appropriate rebel tactics, but not the politics that motivated them. His shifting views of the revolutionaries improved his reading of them, and undermined his paradigmatic commitments, but remained insufficient to entirely understand them. Second, as
already noted (see 4.3 above), he had little opportunity to develop a political program, as he was assigned few political tasks. Other than the necessity of maintaining order in local settings under occupation, he offers little advice drawn from mental simulation of his opponents.

Ewald does offer brief advice on the management of an occupied town, indicating that, while severe order must be imposed, “you must also assure the inhabitants that you will maintain discipline among your soldiers; and that every indulgence will be granted, which their behavior may deserve” (Ewald 2010, 167). Clearly, he understood that imposing order meant more than force of arms. It also meant engaging interpersonally with the locals in so doing. However, he offers starkly little specific advice on how this might be accomplished. Tellingly, this part of the analysis in his manuals makes little reference to his American experience—clearly, the specifics of it told him relatively little. As with intelligence gathering, Ewald discovered his own cognitive limits in America, but did not overcome them.

6 Conclusion

What are we to make of Ewald’s learned account of counterinsurgency? Ewald’s eight years in America taught him many things, but in some respects less than we might expect. He learned relatively little by paradigm. What he did learn he learned in the negative, discovering the expansive gap between what he believed and the actual enemy he faced. He learned little more by doing (why is unclear). Instead, he learned most by simulation. A table, below, summarizes descriptive findings.

Ewald arrived with nuanced and systematic ideas both about politics and irregular warfare. Politically, he was committed to an honor-bound absolutist political hierarchy. Militarily, he believed in a form of irregular combat indigenous to Central Europe, a way of war largely in line with his political views. These commitments were deeply engrained. Nonetheless, faced with profound challenges, many of these beliefs broke down. He came gradually to respect the American revolutionaries. He never accepted the moral rightness of “that ‘Liberty and Independence’ for which these poor fellows had to have their arms and legs smashed” (Ewald 1979, 355). This colored his view of the American Revolutionary project right to its end. As Selig (1994, 123) notes, “Only after the French Revolution had introduced the idea of la patrie, the European equivalent of ‘‘Liberty and Independence,’ was the revolutionary side of the American War driven home to Europeans.” Nonetheless, Ewald did respect his opponents as soldiers, not only because they acted in morally honorable ways, but also because they were such
effective warriors. This gradual transition from distaste to admiration represented a revision of his foundational views, undermining his paradigm. However, the mismatch between paradigm and experience, coupled with Ewald’s inability to arrive at alternative foundational preconceptions, sharply constrained his ability to learn. Having largely discarded his preconceptions, but finding no new ones, he was unable to establish systematic guidelines for counterinsurgency. His manuals, while thoughtful and detailed, are animated by few core ideas or beliefs. His prescriptions in them rarely rise above the level of tactics.

Nonetheless, much of this lower order prescription resulted from what he learned by doing or by simulation. Learning gradually by doing, Ewald made limited but nonetheless real innovations at the tactical level. Simulation of the Americans’ intentions gradually destabilized Ewald’s paradigmatic commitments. His assumptions broke down only gradually, and never did entirely, but recurring exposure to unexpected outcomes seems to have been enough to partially discredit his political beliefs in his own eyes. Persistent unexpected results are, on Kuhn’s (1996) account, a feature of a paradigm in crisis, and thus an important precursor to a paradigm shift. While the shift never quite occurred here, many significant cognitive changes did. This in turn permitted greater experimentation, as Ewald learned to conduct variety of operations by emulating his enemy—somewhat he did only later in his time in America.

These partial applications of learning methods produced the moderate outcomes we observe in Ewald’s counterinsurgent prescriptions. He made real but limited gains as regards intelligence collection, and the use of force. He was less effective in the area of political organization, presumably because his paradigmatic bias was especially acute there. In short, his specific configuration of learning methods gave rise to how much, and what, he learned.

I have argued theoretically that learners who learn in more than one way should experience a multiplying effect, wherein one learns above and beyond what the individual learning outcomes of discrete methods. Pluralist learning is thus more than the sum of its parts. Ewald’s experience of this multiplicative effect was real, but quite limited. Because his paradigm was substantially mismatched to his circumstances, it could tell him little in interaction with other methods of learning other than (as I indicate above) in the negative. Beyond this, remaining interactions were between learning by doing and by simulation. The most extensive such instances involved the use of force.
### Table 2: Ewald's learning outcomes

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| Intelligence  | • Limited—Ewald’s paradigm was poorly suited to assessing and predicting the intentions and operations of his opponents, whom it distained.  
• Most of what he learned about intelligence he learned in non-systematic, non-paradigmatic ways. | • Moderate—Ewald’s paradigm forced him to learn intelligence gathering by improvisation.  
• This chiefly involved dealing with often hostile or detailed sources, from whom he frequently threatened, cajoled, and deceived information. | • Moderate—paradigmatic bias curtailed his understanding of the Americans, whose reactions often surprised him, especially early in his deployment.  
• Nonetheless, these assessments gradually improved, and he offers a brief account of the need to make informants of locals. |
| Use of Force  | • Moderate—Ewald’s paradigm made him honor bound to oppose those who resisted the traditional social hierarchy, identifying right targets of force.  
• It nonetheless told him relatively little about methods of violence (his partisan background was not paradigm-dependent). | • Moderate—where Ewald’s paradigm told him whom to target, experimentation helped him fine-tune how to do so.  
• Expanding on European partisan warfare, Ewald learned to conduct effective ambushes, to avoid those of the enemy, and to conduct mobile operations against American irregulars. | • Extensive—Ewald learned much of what he came to understand as the right way to fight partisan wars by imitating the American revolutionaries.  
• Assessing their intentions and thereby understanding (and even preempting) their attacks contributed a great deal to his grasp of counterinsurgency. |
| Political Organization | • Moderate—Ewald’s paradigm committed him to a relatively certain and detailed view of how politics should work, based on honor and quasi-feudal fealty.  
• However, this only partially prepared him for the political challenges of the field, telling him what order to seek, but not how. | • Negligible—Ewald’s experience in America offered little opportunity for political improvisation.  
• His paradigm also offered little motivation for political experimentation. He thus neither needed nor wanted to learn in this area. | • Limited—absolutist political bias and lack of opportunity led to little cognitive change in this area by this means.  
• Nonetheless offers a brief account of how to manage local occupation. |
An especially fruitful subset of this concerned ambushes. Here, the effect was iterative. Ewald was ambushed early and often (e.g., Ewald 1979, 9, 52, 62, 76, 77, 80, 144, 181–82, 270–71). He learned by repetition both to avoid ambush and to conduct ambushes of his own (e.g., Ewald 1979, 121, 123, 141, 165–66, 178–79, 208, 210, 267, 285, 288, 323, 330). This involved gradual trial and error, but also simulation, insofar as he had to understand the intentions of those lying in wait. Indeed, the learning to avoid such attacks and learning to conduct them were not readily separable, since both required him to understand in great detail the tactical reasoning at work in a given context. Since he faced new insurgents and new geographical contexts (Ewald 1979, 141) as he moved across the large theatre of war over many years, he could not simply replicate past actions and adjust them for previous failure. He had to simulate as well, assessing the enemy’s varied tactical intentions in each case. The result was a details set of accounts in his manuals explaining the conduct of ambushes deployed and received in various forms (“ambushes” or “ambuscades” (Ewald 1991, 117–19; Ewald 2010, 233–461), and more broadly “surprisals” (Ewald 2010, 190–220)). These analyses have few obvious linkages to Ewald’s paradigmatic commitments, which told him little of use here.\textsuperscript{132} This reflects the quite partial and limited character of the multiplication effects he experienced. Nonetheless, he learned, and in so doing profited from an interaction between learning by doing and by simulation.

What mixed or cross-methodological learning Ewald did achieve required effort. He had to self-consciously aim to learn in more than one way. Put differently, multiplicative learning was predicated on metacognition. In the case of ambushing, he thought and rethought the tactics necessary to make an ambush work, thinking through the tactical skills displayed by the Americans and how he might appropriate them. He drew detailed maps of ambushes (and indeed of other engagements) that illustrated both an understanding of insurgent tactical intent and contextual knowledge of topography and settlement (Ewald 1979, 181, 213 see also 155, 223, 283, 310, 331). Improved intelligence gathering helped as well (Ewald 1979, 166). Gradually, he improved, but only with a great deal of effort at mobilizing insights from a range of sources. “I had made it my principle to be strengthened in opinion by sight and experience” he noted (Ewald 1979, 126), and yet, as we have seen, he persisted is assessing and reassessing intentions and

\textsuperscript{132} Nonetheless, Ewald closely linked insurgent and counterinsurgent ambushes: “However much has to be censured he who falls into an ambush, it adds as much to the reputation of an officer if he knows how to lay them with skill and to lure his enemy into them” (Ewald 1991, 117). This was thinkable only in the context of Ewald’s understanding of the two sides as largely interchangeable.
strategic reasoning of his enemy. He never ceased to admire the American revolutionaries’ ability to surprise him. Below, I show that this effect varied across this study’s three cases. In contrast, I will find a much more extensive record of multiplicative effects of interaction between models and of metacognition in the case of David Galula, below, and almost none in the case of C. E. Callwell, in the next chapter.

We can also say with some certainty that what Ewald learned was a matter of some consensus. Admittedly, because of Ewald’s historical distance from us, his influence over his peers is somewhat more difficult to establish than that of the learners in the cases below. Still, the evidence is striking. The British military translated Ewald’s second manual, and distributed it widely to troops during the Peninsular War in Spain (Ewald 2010; Selig 1994). The small but emphatic historical literature on Ewald emphasizes his status as an important military theorist of his day. Perhaps most prominently, he was read and endorsed by Clausewitz (Hahlweg 1986). His direct and indirect influence thus persisted for generations. In endorsing his findings, those in his influence endorsed his methods of learning as well. Indeed, his nascent skepticism about the European social hierarchies proved prescient. His paradigmatic auto-critique was incomplete, but nonetheless prefigured the mass politics that dominated Europe during the nineteenth and early twentieth centuries. These findings were possible only because of his extensive simulation of his American opponents. As Europeans increasingly became liberals and nationalists themselves, they came in some respects to tacitly share his empathy with the American political imagination.  

All of this suggests not just that learning is necessarily something that occurs in multiple ways, but that the relationships between these ways of learning are fraught. By turns, they undermine and facilitate one another, curtailing and multiplying outcomes. Ewald’s eventual view of counterinsurgency was nuanced but also inconsistent and incomplete. Faced with steep challenges to his beliefs, he had difficulty revising them rigorously and systematically. He learned, but only haltingly. His thinking was complex, but only moderately so.

America did not represent Ewald’s last encounter with partisan wars of national liberation. Some two decades later, as Napoleon’s armies marched across Europe, its conquered peoples developed national sentiments of their own, and took up arms against occupation. Ewald

133 We know also that lessons on partisan war from America were influential because other authors produced comparable works. See especially Emmerich (1789).
by this time had become an officer of the Danish crown, under whose service he became a major general, and was elevated to the nobility. While Denmark allied with Napoleonic France many other parts of Europe resisted and were conquered. Ewald’s service was limited and (once again) on the counterinsurgent side, as he aided in the occupation of Hamburg (Tustin 1979, xxix–xxx). It was nonetheless through these wars that the politicized style of populist, partisan warfare Ewald had witnessed in American finally arrived in Europe. One of the occupied countries, Spain, gave revolutionary partisans the name they bear today: guerrilla.
Chapter 4
C. E. Callwell and the Boer War

The Second Anglo-Boer War (1899-1902, hereafter the “Boer War”) was among the key events of British imperial military history, and as important and difficult an asymmetric war as the Empire ever fought. Historically, the conflict belonged to two eras—to the Victorian period of European colonial warfare and to the modern world of mechanized, professionalized combat. It was unusual in pitting two colonial peoples against one another. The British campaign was notable for its brutality, and for the policy of forcibly concentrating Boer civilians in camps, which provoked outrage in the British press. The Empire won only with great difficulty. Kipling wrote that the war taught the British “no end of a lesson” (1907, 201). It dragged on for three years, costing thousands of lives before the Boers finally surrendered.

C. E. Callwell served in the conflict for most of its duration. The war represented the height of his field command experience, and he witnessed and implemented many key British strategies. However, this chapter finds that Callwell learned relatively little. He had deep and expansive convictions about the use of force, which he developed systematically, in great detail. He nonetheless learned little about intelligence collection and political organization.

Below, I link this learning outcome to his specific approach to learning, which overwhelmingly emphasized a single approach. While he viewed himself as a practical learner—one who learned by doing—he in fact learned almost exclusively by paradigm, deploying a rigid array of assumptions to make sense of the complex and chaotic context of the conflict. Indeed, his assumptions played an overwhelming role in his cognitive development. His own account of the war finds him learning by doing only at the margins. He also learned little by simulation. Despite demonstrating an occasional (if remarkable) capacity for cross-cultural awareness, his existing assumptions usually prevented such insights from informing his broader theoretical beliefs. His thinking was thus only minimally adapted to complexity, reflecting a rigid, narrowly

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134 The Boer War is also known as the South African War, the Second Boer War, and the Anglo-Boer War, as well as a multiple names in Afrikaans. While none is wholly standard, I follow the most common colloquial usage.
linear cognitive style. These cognitive constraints were reflected in his military performance in South Africa, where he made few gains over and above those experienced by the British Military more generally. Indeed, a lengthy deployment in the Boer back country went relatively poorly, with few Boer soldiers captured or killed. This, at least, seems to have been the judgment of his superiors, who never again gave him a major command in the field (Gray 1996).

This chapter documents Callwell’s learning processes in South Africa. After reviewing the war itself, then briefly examining Callwell’s role in the campaign, it analyzes his learning processes across the three models discussed above. Through each of these lenses, it considers three areas of counterinsurgent policy learning: intelligence gathering, use of force, and political organization. It closes with summary and analysis.

1 The Boer War

The Boer War has roots in southern Africa’s colonial history. The first colony on the continent’s southern tip was Dutch, established over the seventeenth and eighteenth centuries. Thus, when the British annexed it during the Napoleonic Wars, a European settler population was already entrenched. British sovereignty over the Cape was formalized in 1815 (Nasson 1999, 1–3). British occupation brought new settlers, and the Dutch population came to identify as a distinct group, a predominantly rural population who called themselves Boers (“farmers”), in contrast to the urban and educated British. Amid intercommunal tensions, portions of Boer society (“Voortrekkers”) determined in the 1830s to escape British rule. They established the Natal colony, on the coast northeast of the British settlement. However, the British annexed this too, in 1843, and some Boers resettled deep in the interior, establishing two independent republics: the Orange Free State and the Transvaal. The new republics were geographically isolated, lying in the hinterland of the larger British colony. Many Boers stayed on the coast, where economic circumstances were better. Nonetheless, the British recognized the republics as sovereign in the 1850s (Nasson 1999, 3–4). However, British interests changed when gold and diamonds were discovered in the interior. The British overran the Zulu kingdom, a onetime Boer interlocutor, in the 1870s. The independent Boer republics were, perhaps inevitably, next.

The British Empire absorbed Transvaal in April, 1877, as a directly ruled colony. Transvaal was the least politically established of the colonies, with a population of about 30 000 and only intermittent taxation capacity. Inept British rule alienated the Boer settlers and gave way to the Transvaal War (First Boer War) of 1880-81. Faced with an entrenched enemy, the
British settled quickly after their overwhelming defeat at Majuba Hill, in February, 1881. Transvaal sovereignty was restored, the sovereignty of the Orange Free State never having been formally in question (Smith 1996, 28–32). However, encroachment in the region by other European powers set the scene for the outbreak of a second and much larger war in 1899.\footnote{In 1884-85, the German annexation of Namibia broke Britain’s regional monopoly. The Portuguese settlement at Delagoa Bay, north of Natal, on the East African coast, set out to build a railway to Transvaal, which would open the isolated republic to international trade. The Jameson raid, an unsuccessful British-Rhodesian incursion into Transvaal over the 1895-96 New Year, poisoned what was left of Anglo-Boer relations (Smith 1996, 25, 37, 70–76).}

The British expected an easy victory. When war broke out, on October 11\textsuperscript{th} 1899, they estimated a cost of some £10 million, a deployment of 75 000 troops, and a duration of a few months. The Boers imagined an equally brief route to victory: they would launch incursions deep into British territory, instigate a Boer rebellion there, and force a settlement. In the event, the British incurred costs of £230 million, deployed 450 000 troops, and took 22 000 casualties. The Boers stood and fought an increasingly unconventional war until 34 000 of them, military and civilian, were dead. The war dragged on for two years and eight months, as Boer civilians were herded into concentration camps, a still unknown number of indigenous and biracial persons were killed, and Britain’s reputation was seriously damaged, both at home and abroad (Smith 1996, 1–2).

The two sides had markedly different force structures. While the British deployed an army of professional troops drawn from Britain and its settler colonies, the Boers fought in citizen militias. In a given area, the male Boer populations of fighting age would constitute themselves as “commandos”, electing officers and supplying their own arms and horses. They could deploy with a week’s notice (Nasson 1999, 62–63). This loose structure facilitated their eventual transition from conventional to guerrilla combat. Boer commandos began by besieging major British controlled settlements in Natal and Cape Colony. The British broke the sieges early the following year (Judd and Surridge 2002, 159–72), and then pushed back, occupying the major Boer settlements in the republics by the beginning of June (Nasson 1999, 160, 176, 180–83.). The British expected the war to end there: Boer forces were scattered, and their major settlements were under British control. However by December 1900, the British found this did not precipitate Boer surrender (Judd and Surridge 2002, 187). Many of the Boer commandos remaining in the bush turned to guerrilla warfare. In so doing, they assumed the British would continue a conventional strategy, and could eventually be worn down, permitting an insurgent
victory. The Boer strategy exhibited traits of complexity including decentralization (and consequent nonlinearity), adaptability, and unpredictability.

The British responded with three new approaches. First, they established a system of blockhouses—small fortifications—and barbed wire fences across the two former republics. By the end of 1901, a network of barbed wire fences carved up the two republics, punctuated by 8000 blockhouses at intervals of about 1000 yards, enclosing 31 000 square miles, and manned by 50 000 British troops, often linked by telegraph lines. The British thereby divided the occupied territories into manageable pieces. The Boers could cut the wire, and cross it, but could be tracked in doing so. Their mobility as undetectable guerrillas was thus severely restricted (Judd and Surridge 2002, 189–91, 214).

Second, the British expanded an existing policy of burning Boer farms. More than 600 farms were set alight between June and November 1900, in the Orange Free State alone, as the insurgency gathered pace. The policy was pursued in Transvaal as well. The effect was mixed. It had some strategic value—Boer leaders admitted as much. The guerrilla leader De Wet noted in his memoir that it slowed Boer progress by depriving commandos of supplies and shelter. However, it further antagonized Boer civilians. In Cape Colony, a trio of newspaper editors stood trial for openly objecting to the policy (Judd and Surridge 2002, 193).

Third, beginning in the summer of 1900, they interned Boer civilians in concentration camps—a policy they would later expand. The concentration camps were first established to house Boers collaborating with the British, protecting them from their more radical coethnics. By the following year, however, they had grown to house other civilians rendered homeless by the conflict, including families of POWs and those dispossessed by farm burning. At their peek, they house 160 000 people—much of the region’s total population. By 1901, the interned population were overcrowded and underfed. Sanitation was poor, and communicable diseases ranging from measles to typhoid to malaria were common (Judd and Surridge 2002, 194–96). The British strategy had gradually become a diagnostic case of a certain approach to counterinsurgency: widespread and arbitrary violence, or what Arreguín-Toft (2005a, 31–32) calls “barbarism.”

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136 Arreguín-Toft classifies concentration of population as broadly equivalent to mass violence against civilians, and includes the Boer War as an example. Indeed, their effects are often comparable. In South Africa, interned civilian death rates were extremely high. After the war, De Wet professed shock: “Could any one ever have thought before the war that the twentieth century could show such barbarities? No… that such direct and indirect murder should have been committed against defenceless women and children is a thing which I should have staked my head never
2 Callwell in South Africa

The conflict in South Africa has been called “the last of the gentlemen’s wars” (Fuller 1937): the last major British conflict before WWI. Led by an aristocratic officer class, it stood for British tradition, in defense of empire and imperial values. It was also, however, new in important ways. The British fought a mechanized campaign against a large and well-armed enemy, employing significant force. At the turn of the twentieth century, the largest empire on Earth fought an old kind of war in a new way. It provided potentially fertile ground for strategic and tactical learning.

Charles Edward Callwell was emblematic of this historical juncture. Born 2 April 1859 to a minor Anglo-Irish aristocratic family, he attended boarding school and enlisted thereafter. He served in India and Afghanistan, attended Staff College, and went on to serve in postings across the British Empire. The Boer War represented his largest field command. He retired a Colonel in 1907. After returning to service for WWI, he was promoted to Major General and knighted. He never married and, other than a portion of his retirement spent on journalism, had no career outside the military. He wrote two major works on strategy—on counterinsurgency (Callwell 1899; 1906) and on coordination between land and sea forces (Callwell 1996)—two biographical works on prominent officers of the day (Callwell 1920a; 1927), four volumes of memoir (Callwell 1912; 1920b; 1923b; 1923a), and a great deal of related journalism. He traveled extensively, serving late in his career as a British military agent to Russia. He was occasionally, and in a limited capacity, a spy. He died 16 May 1928, in London. 137

Callwell served in the Boer War from January 1900 to April 1902, from shortly after it began to the month prior to its end. He was thus present for almost the whole of the conflict. He participated in the British transition from a conventional military strategy to extensive counterinsurgent violence. He did not make policy in South Africa, but he did witness and help execute it. His experience there was, by any measure, formative.

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137 Other than Callwell’s memoirs, the most extensive biography is Colin S. Gray’s long introduction and appendices to a recent reprint of Callwell’s other manual, Military Operations and Naval Preponderance (1996). He is thought to have left no significant unpublished papers.
2.1 The Manual—What Callwell Learned

That experience bore extensively on his understanding of counterinsurgency as articulated in his manual, Small Wars: Their Principles and Practice (Callwell 1899; 1906). The book was published in a second edition the year the war began, and revised again seven years later, based in large part on his South African experience. The conflict itself occupies nearly a hundred pages of his memoir—more than any other single incident (1923a, 2:73–180).

His analysis of small warfare is compendious: exceeding 500 pages, his manual is by far the longest under study here. Callwell’s knowledge of his subject was encyclopedic, and his book shares this quality, ranging over dozens of conflicts. It’s structure is thematic. The book moves from several chapters on general or conceptual matters, including “small wars” as a category, the strategic and tactical nature of guerrilla warfare, and the role of intelligence, to more purely practical military matters—tactics of attack and defense, troop formations, and so on. The result is at times laborious, including, for example, more than seventy references to infantry squares, and an entire chapter on camel corps.

Nonetheless, the manual is animated by a single thesis: the solution to the problem of insurgency is overwhelming violence. At every stage, Callwell is motivated by a commitment to fast, violent, overwhelming, and “overawing” warfare, designed to rapidly coerce and shock the irregular enemy into submission. If the goal of insurgents is to avoid direct confrontation, then the way to victory is to confront them. If civilians support insurgents, they should be cowed into betraying them. Callwell’s advocacy of persistent and often extreme tactics is thus as central to his thought as it is, at times, disturbing. The work has nonetheless remained influential.

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138 I cite the third from a 1996 facsimile edition, which retains the original pagination. Where a passage recurs in both editions, I cite both. I retained Callwell’s original, sometimes idiosyncratic, spelling and punctuation throughout.

139 The exception is WWI, which Callwell had already dealt with in a separate volume (1920b).

140 Small Wars (Callwell 1906) is a remarkable text in a variety of ways: “it is perhaps the most comprehensive record ever assembled in one source of resistance by subjugated populations to Euro-American imperial expansion” (Hevia 2010, 171). Whatever its value as historical record, I am concerned with it only as a source of instruction.

141 A sample passage illustrates: “In the Pathan country the presence of women and children in a village may be taken as a sure sign that the men belonging to it do not want to fight. This fact need not of course influence the decision to destroy it.” (Callwell 1899, 269; 1906, 310) (I return to this instance below.)

142 Callwell defined small warfare quite broadly, as “all campaigns other than those where both the opposing sides consist of regular troops…. The expression ‘small war’ has in reality no particular connection with the scale on which any campaign may be carried out; it is simply used to denote, in default of a better, operations of regular armies against irregular, or comparatively speaking irregular, forces.” (1899, 2; 1906, 21)
3 Learning by Paradigm

A thorough understanding of how Callwell learned by paradigm requires an account of his deep-seated paradigmatic commitments. While Callwell left no programmatic statement of his worldview, it can be readily distilled from the political and military reflections in his memoirs. His political views might be described as “military imperialism”: he viewed the British Empire as a source of good governance and geopolitical order, and robust military coercion as the way to achieve it.

His beliefs thus largely aligned with the public self-conception of the British Empire itself. British authorities framed their rule as superior to local government, and in so doing defined subjugated populations as inferior and unable to properly govern themselves (Metcalf 1994, 2–3). This orientalist view of colonial subjects justified empire, but it also provided a basis for a uniquely British understanding of imperial rule. The Empire saw in itself four qualities: it was “Protestant, commercial, maritime, and free” (Armitage 2000, 8). It was, thus, distinct from the Catholic Empires of Spain, France, and others, was driven by the impetus to trade, was therefore necessarily seagoing, and was, finally, liberal in its own eyes: it claimed to impose a putatively benevolent, improving (rather than destructive and extractive) rule. However, the officer classes of the military necessarily experienced empire more narrowly in terms of armed force.

This was Callwell’s lived experience: a military project for the expansion of political authority. Consequently, his writings downplay commerce, religion, and indeed (as an army officer) seafaring. He took as given that subjugated peoples were better off under British rule. The chief question was of imposing it. Callwell’s justification of empire was informed by a deeply racialized hierarchical view of imperial subjects and territories. The proper condition of

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143 The US Army counterinsurgency field manual (2007, p.391) cites it at the top of a list of counterinsurgency classics. Prior to the postwar era, it “provided the only detailed, English-language study of warfare against irregulars… only the 1940 Small Wars Manual of the U.S. Marine Corps rivaled Callwell’s work” (Gates 1997, 381). Callwell may also have indirectly influenced British WWII strategy in North Africa (Anglim 2008).
144 British imperial expansion was not systematically guided by an explicit ideological project. The English historian John Robert Seeley (2010, 8) famously remarked that Britain “conquered and peopled half the world in a fit of absence of mind.” However much he may have overstated matters, the empire did not originate in a public and self-conscious belief system. Having conquered, British authorities in India, in Africa, and elsewhere had to justify their presence both to their newfound subjects and to themselves.
145 Thus, the late-18th century Governor-General of Bengal Lord Cornwallis could state that “Every native of Hindustan, I verily believe, is corrupt.” (quoted in Metcalf 1994, 24)
imperial rule was, in his view, one of strict, sharply stratified social hierarchy. He thought imperially occupied peoples should be passive: their role was to be ruled. Those who thought otherwise (chiefly liberal-minded Europeans) were dangerous: they threatened the static balance of the imperial order. Callwell summarized his views in an account of his first stint in India:

These were the days, it must be remembered, when the races peopling the Indian Empire still remained in a state of pathetic contentment, the days before well-meaning but ignorant, self-opinionated and mischievous politicians took it upon themselves to introduce reforms into Hindustan that were totally unsuited to the conditions existent in regions with which they were unfamiliar…. The relations between the native and the ‘sahib’ consequently left little to be desired…. The latent jealousies between Moslem and Hindoo [sic] were kept under control by a firm and wise administration. Civil disturbances were almost unknown. Sedition did not exist. (Callwell 1923b, 1:76–77)

Here we have much of Callwell’s imperial worldview: races are unequal. Administration by Europeans over inferior peoples should be imposed by military force. More liberal views, however well intentioned, threatened the peace only empire could achieve. Imperial order required a firm, independent military, backed with steady government support. Callwell frequently criticized the British civilian government in his memoirs. Any change in imperial policy based on liberal reformism or political expedience threatened imperial order. He summarized bluntly: “All politicians are bad. But some are worse than others” (Callwell 1923b, 1:211).146

These understandings constituted a worldview—a paradigm—through which the complex and unpredictable experience of armed conflict could be ordered and understood. By providing a system of foundational assumptions, they constrained and facilitated Callwell’s thinking about who the enemy was, what constraints and opportunities local cultures provided for intelligence gathering, how to fight, and how political order should be imposed. Below, I take these in turn.

3.1 Intelligence

Formal, institutionalized intelligence gathering by militaries was still relatively new in Callwell’s day.147 Since Callwell’s primary concerns were military—the imposition of violence

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146 Callwell’s distrust of politicians, and civilian rule generally, was not unusual among senior British officers of the day, or indeed their Continental counterparts. Compare the British officer Sir Henry Wilson, according to whom civilian control over the army was “vicious in theory and hopeless in practice” (quoted in Strachan 1997, 114).
147 His conception of it was relatively basic: the systematic gathering of information about “the strength and organization of other countries in view of possible eventualities, and to collect information as to, and to prepare plans of, theatres of war which may some day take place” (1899, 25; 1906, 43).
as a policy solution—he offers less advice on intelligence than on combat. While he served in the Intelligence Department before his time in South Africa, his time there was largely uneventful (Callwell 1923b, 1:313–18). The section of Small Wars on intelligence notes chiefly that intelligence in small wars generally favors insurgents. In the postwar 1906 edition, Callwell made no revisions to this section (1899, 25–37; 1906, 43–56). Still, Callwell recognized intelligence was important: “In no class of warfare is a well organized and well served intelligence department more essential than in that against guerrillas” (1899, 114; 1906, 143).

Callwell’s general—and unrevised—view of intelligence in counterinsurgency is simply that it is difficult: “it is an important feature in the preparation for, and the carrying out of, small wars that the regular forces are often working very much in the dark from the outset” (1899, 25; 1906, 43). He cites two reasons for this: unfamiliarity with the physical theater of war, and unfamiliarity with the enemy. The first of these has to do with the remoteness and geographical difficulty of colonial warfare: these “are in the main campaigns against nature” (1906, 44–46). This sets small wars in stark contrasts to conventional conflicts:

- Accurate information as to the organized military forces of leading nations is not difficult to obtain; the topographical features, [and] the communications and the military resources of civilized countries are well known…. Small wars break out unexpectedly and in unexpected places. The operations take place in countries often only partially explored, if not wholly unexplored. The nature of the enemy, his strength, his weapons, and his fighting qualities can be only imperfectly gauged. (1899, 25; 1906, 43)

Human intelligence about the enemy posed even greater difficulties. Callwell’s account departs from the assumptions of his military-imperialist paradigm, focusing on the presumed ethnic characteristics of the enemy:

- The ordinary native found in theatres of war peopled by coloured races lies simply for the love of the thing, and his ideas of time, numbers, and distance are of the vaguest even when he is trying to speak the truth…. In small wars the field intelligence department is often greatly hampered by this difficulty in eliciting correct information from the people of the country—more so than would generally be the case in civilized countries. (1899, 31; 1906, 49–50)

Callwell draws from these beliefs a structural claim: indigenous populations have a necessary advantage concerning local knowledge.148 Because existing social networks and bonds of

148 Locally or culturally variable weights and measures is a subject of anthropological interest unto itself. See discussion in Scott (1998, 25–33).
language and ethnicity facilitate information sharing, the insurgent side will be better able to assemble and leverage information:

This arises from the social system in such theatres of war and from the manner in which the inhabitants live… Camp gossip is heard by those who are attracted by the ready payment which supplies brought to a civilized army always meet with, and it flies from mouth to mouth till it reaches the ears of the hostile leaders. (1899, 35; 1906, 54)

Counterinsurgents are necessarily disadvantaged in terms of cultural knowledge and social network connections.\(^{149}\)

Callwell’s paradigmatic bias assumed limited information about the theatre of war, and left little scope for acquiring human intelligence, sharply constraining options for intelligence collection. Unable to identify useful ways to collect intelligence, he prescribed instead what he took to be the remaining option: counterintelligence misinformation. His solution leveraged local social networks to counterinsurgent advantage. If the enemy has the upper hand in collecting information, one should provide them with falsehoods: “By spreading fictitious information as to proposed movements or by publishing it abroad that some imaginary enterprise is impending, the hostile leaders can be put on a false scent. The news is sure to reach them.” He provides a range of examples from British and French imperial history (1899, 35–37; 1906, 54–56). His chief insights on intelligence were thus derived chiefly from his preconceptions (perhaps in combination with his experiences in the First Boer War—see section 4.1 below).

Still, Callwell’s beliefs left him few options concerning intelligence. He did not revise his view of the subject after South Africa, and his memoirs make little reference to intelligence work there (see 4.1 below for limited exceptions).\(^{150}\) Instead, he continued to believe there were sharp limits on intelligence work in counterinsurgency. This was predicated on his imperial worldview. Callwell internalized new data chiefly when it was consistent with his existing beliefs.

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\(^{149}\) A local informational advantage is a common postulate of the counterinsurgency literature, recurring in Galula (1964, 50) and the 2006 US manual (2007, 79–82). On local knowledge generally, see Scott (1998).

\(^{150}\) Callwell nonetheless recognized the importance of an intelligence bureaucracy, having worked in one himself. He notes that “In the latter days of the Boer War the paramount importance of a well equipped intelligence department was fully recognized, and its work exercised a great influence on the course of the operations” (Callwell 1906, 145). While Callwell offers no details, the historical record is clear. Because farm burning and internment had been at work for some time by the end of the war, the purpose of intelligence was to locate remaining Boer commandos. The expansion of the Field Intelligence Department in South Africa from a few hundred to some two thousand men facilitated doing so (Pakenham 1979, 572–73). Callwell did not directly participate in these activities.
3.2 Use of Force

The most striking feature of Callwell’s account of counterinsurgency is his paradigmatic commitment to the extensive, indeed sometimes arbitrary and brutal, use of force. This commitment constitutes the central thesis of Small Wars: violence is the counterinsurgent’s main tool, and overwhelming application of it is the proper approach.

Callwell believed successful warfare occurred on the battlefield. In counterinsurgency, this meant fighting a fast and straightforward campaign that forced direct confrontation. Doing so amplified the advantages of the strong side (better organization, larger forces) and minimized those of the weak (flexibility, local knowledge). Thus, “in campaigns of this class a main objective to be aimed at is to shorten their duration” (1899, 73; 1906, 97). Victory resulted from decisive military action: the objective “is to fight, not to manoeuvre” (1899, 66; 1906, 91). This resolute and quick route to victory required that its opposite—“desultory warfare”—be avoided at all costs. Some of his reasoning for this would likely be familiar to counterinsurgents today, including supply train difficulties in hostile territory, the opportunity to regroup that delays offer insurgents, and the intelligence difficulties discussed in the previous section (1899, 73–75; 1906, 97–99).

However, his central rationale for imposing a violent solution was not to achieve victory by force alone: “The main points of difference between small wars and regular campaigns in this respect are that, in the former, the beating of the hostile armies is not necessarily the main object even if such armies exist, that moral effect is often far more important than material success” (1899, 21; 1906, 42). Nor is this best achieved through overwhelming numbers. Instead, the purpose of rapid attack in small wars is to generate awe in one’s opponent: “the great principle which regular troops must always act upon in small wars—[is] that of overawing the enemy by bold initiative and by resolute action” (1899, 4; 1906, 23). Callwell claims history bears out his view: “The records of small wars show unmistakably how great is the impression made upon semi-civilized races and upon savages by a bold and resolute procedure” (1899, 57; 1906, 78). Conversely, “Uncivilized races attribute leniency to timidity” (Callwell 1899, 118; 1906, 148).152

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151 On “moral” impact in Callwell, see Whittingham (2012). I return to the matter later in this section.
152 If resolute action is the goal, then questioning its efficacy—doubt—is counterproductive. There must be no “uncertainty in the mind of the commander… Nothing more tends to hinder the framing of a decisive and assured campaign, and to delay the execution of the plan when it has been resolved upon, than this feeling of doubt, the fear
He offers examples ranging from the Indian uprising of 1857-58 to Britain’s many wars of conquest in Africa.

The reason for imposing direct and trenchant violence on the enemy is thus not just about direct military expediency. It is also about achieving a psychological impact. For example, Callwell endorses deploying cavalry in raiding mountain villages: “Cavalry can of course do nothing on hill sides or in narrow valleys; but the terror which horsemen inspire among mountaineers renders this arm particularly valuable” (Callwell 1899, 266; 1906, 307). Throughout, Callwell emphasizes the role of “moral effect” in addition to military expediency (see for example: Callwell 1899, 89, 128, 151, 357, 377; 1906, 76, 109, 152, 177, 407, 429). This psychology is profoundly ethnocentric: he claims non-European peoples differ fundamentally in their responses to shows of force, quotes approvingly the nineteenth century Russian conqueror of Central Asia Mikhail Skobelev: “Do not forget that in Asia he is the master who seizes the people pitilessly by the throat and imposes upon their imagination” (1899, 51; 1906, 72). Such violence serves as much to change minds as to compel militarily. The specific character of Callwell’s violent solution is especially steeped in his imperial worldview. Since the purpose of violence is to change minds as much as to forcibly compel, that violence must be impressive. It is for this reason that counterinsurgents are advised to generate “havoc which the laws of regular warfare do not sanction” (1899, 21; 1906, 42).

In South Africa, this took two general forms: destroying settlements and interning the population. Callwell had previously endorsed the burning of villages. The second edition of his manual provides instructions for doing so, in the context of hill warfare. The later edition retains these, with revisions of wording only (1899, 267–69; 1906, 308–10). It is necessary “to undertake the task methodically and with deliberation”. Care must be taken to destroy all food supplies, lest the area be resettled, or opposition fighters have access to it. It is preferable to undertake such attacks as surprises, so as to minimize resistance. Liberal or humanitarian

that something unexpected will mar the combination and upset the calculations upon which it was based” (1899, 28; 1906, 46–47).

The distinction is similar to that drawn by Schelling, according to which military force may serve to directly cause its target to do something: “Forcibly a country may repel and expel, penetrate and occupy, seize, exterminate, disarm and disable, confine, deny access, and directly frustrate intrusion or attack” (Schelling 1966, 1). This is force as understood by Clausewitz (2007, 13). Alternately, it may be used to “hurt”: to impose pain such that, even if the enemy retains the military capacity to fight, it perceives the cost in “Pain and shock, loss and grief, privation and horror” of continuing to fight to be too great (Schelling 1966, 2). For Callwell, however, this imposition of pain and suffering is coupled with a performative aspect: the purpose is not just to produce pain, but also to create in the minds of one’s opponents an expectation of greater pain to come. See also Art (1980).
concerns should not enter the issue. For example: “In the Pathan country the presence of woman and children in a village may be taken as a sure sign that the men belonging to it do not mean to fight. This fact need not of course influence the decision to destroy it” (Callwell 1899, 269; 1906, 310). The purpose of burning the village is not just to capture or kill fighters, but is also punitive or retributive. Thus, while village burning is effective, crop destruction is much more so, “since the dwellings of these races can be reconstructed easily while their food supplies if destroyed, cannot be replaced” (Callwell 1899, 20; 1906, 41). The most effective punishment, then, is not just to deny guerrillas and their supporters shelter, but also to threaten them with starvation. The analogous practice in South Africa was the burning of Boer farms and destruction of livestock. Callwell participated in this directly:

We rounded up great numbers of sheep, destroying those we could not use ourselves or drive to some place of safety, and we also roped in a fair number of ponies . . . it is not a pleasant task to have to evict a family from its home, to tell them to carry off what they especially prize, to embark them in wagons and then set the place alight. We had no petrol to aid us . . . and as a matter of fact, until you learn the trick, starting a conflagration is not so easy as it sounds. But the only means of subduing Boer resistance and combating our antagonists’ guerilla methods at this time was to lay waste any area in the vast theatre of war which was not under our effective control, so as to leave the burgher commandos no resting place and no sources of supply. (Callwell 1923a, 2:150–51)

In short, a literal scorched earth policy was necessary: only by denying the enemy all access to food and shelter could they be quickly and permanently destroyed.

Callwell did not directly participate in the policy of internment. He comments only briefly on the subject:

Politicians of the baser sort, in opposition at home, criticized the policy of herding Boer women and children in concentration camps severely. I never visited one of these institutions and know nothing about them; but they must have been badly managed indeed, situated as they were on railways, if their occupants were not incomparably better off thus accommodated than they would have been, wandering about on the veld, with little or nothing to eat, and with only broken-down wagons drawn by worn-out oxen to live in. (Callwell 1923a, 2:149–50)

Callwell’s relatively unreflective attitude is striking, given conditions in the camps. By this time, the summer of 1901, Callwell had been in South Africa for a year and a half. The interned

154 Moreover, destroying crops is preferable to seizing livestock, “for while they appreciate the principle that the victor is entitled to the spoils, wanton damage tends to embitter their feeling of enmity.” Here, the purpose is “not only to prove to the opposition unmistakably which is the stronger, but also to inflict punishment on those who have taken up arms.” (Callwell 1899, 20; 1906, 41)
civilian population of the camps at the time exceeded 90,000 Boers—a sizeable portion of the region’s settler population—as well as 24,000 Africans. In May of that year, 550 internees died; in July 1675 did. Indeed, the humanitarian crisis in the theatre of war was rapidly becoming a political crisis in London, as Parliament and the press learned of its the extent. When the total camp population exceeded 105,000, monthly deaths passed 1,800—a figure that excludes interned Africans (Pakenham 1979, 540, 548). The camps had become a source of astonishing human destruction.

Callwell’s revisions to Small Wars make only indirect reference to these events. He notes that dividing and cordoning off the theatre of operations—the system of blockhouses and barbed wire fences—constituted “the system which, when developed to an extent hitherto unparalleled in war, eventually compelled the Boers to submit to the British” (Callwell 1906, 131). He viewed this broad class of policy as effective, and probably necessary: “it is essential that it be carried out systematically, whether it takes the form of devastating the country, or whether it be limited to the seizure of the supplies which may be necessary for the troops.” Perhaps more to the point, Callwell added the following to the post-South Africa edition:

The adoption of guerrilla methods by the enemy almost necessarily forces the regular troops to resort to punitive measures directed against the possessions of their antagonists. It must be remembered that one way to get the enemy to fight is to make raids on his property—only the most cowardly of savages and irregulars will allow their cattle to be carried off or their homes to be destroyed without making some show of resistance. Antagonists who will not even under such circumstances strike a blow, can only be dealt with by depriving them of their belongings or burning their dwellings. (Callwell 1906, 145)

To summarize: only imposing privations on settlements—sites of civilian life—could force a confrontation, and subsequent victory. Thus, his paradigmatic view of the matter, clearly present in the previous edition of the manual (Callwell 1906, 145), was reinforced by his direct experience of these policies on South Africa.¹⁵⁵

In South Africa however, Callwell endorsed imposing this violence not on an indigenous population, but on Europeans settlers. The distinction seems not to have changed Callwell’s prescribed strategy. To be sure, he identified important distinctions between the Boers and the

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¹⁵⁵ It is unclear why internment, implicit in his call to devastate the country generally, is not mentioned explicitly in his manual. He may have viewed internment as a matter for civilian administrators. He may also have elided it because it was unpopular with the British public. Regardless, he clearly viewed the policy itself as effective.
non-European opponents to which he was accustomed. He is clear that “civilized” or racially superior peoples will be “well armed and most determined” and that “To coerce such a people into submission is no easy task” (Callwell 1906, 133). Moreover, as I show below (see section 5.3), in many ways Callwell identified with the Boers. Nonetheless, he endorsed a violent approach. Throughout British history in South Africa, he claimed, “rigorous treatment was meted out to the enemy in crushing out disaffection, and with good results” (Callwell 1899, 118; 1906, 148). How are we to make sense of this inconsistency between Callwell’s hierarchical racism and his endorsement of performative violence against Europeans? It seems likely that by this time Callwell had already internalized a paradigmatic belief that only massive and resolute violence could defeat an insurgency. Having come to believe that such methods were necessary in wars of this kind, he remained committed to them even in the absence of the ethnic justifications with reference to which the beliefs had emerged.156

Indeed, his views appear to have been strengthened and consolidated by the experience. This is illustrated by a passage in the previous edition of Small Wars (Callwell 1899, 83): “The hostile army should usually be left a golden bridge whereby some slight chance of escape is opened up.” This is because a wholly cornered enemy, especially those “who if they capture prisoners, slay them as a matter of course”, will expect to face death themselves if captured. Thus, “if they are cooped up and surrounded they will offer a desperate resistance.”157 This discussion is striking chiefly because it is missing in its entirety from the 1906 edition of Small Wars. Its removal constitutes the single largest deletion among Callwell’s revisions. Where he had once recognized exceptions to his general rule, he later discounted these mitigating concerns. While we cannot know that he learned this from his experience in South Africa, the inference is plausible, given his memoir’s emphasis on the effectiveness of harsh tactics in the conflict.

156 Callwell nonetheless acknowledges exceptions: “Wholesale destruction of the property of the enemy may sometimes do more harm than good, and it is, in any case, by no means easy to carry out” (Callwell 1906, 149). This language was new in the third edition. However, we may take this as indicating not doubt about the policy, but instead Callwell’s belief in the pervasive local variability of small warfare. See section 3 above.

157 A historical example from Russian Imperial expansion in Central Asia makes clear that elevated insurgent commitment is often due to the presence of civilians on their side and the desire to protect them. During a Russian assault on the Turkmen fortification at Denghil Tepe, a group of some 3700 Turkmen fighters were surrounded with a “vast gathering of women and children”. The Russians’ unwillingness to allow them safe passage is said to have motivated the Turkmen fighters sufficiently to defeat the Russians, against overwhelming odds (Callwell 1899, 84–85). The final Russian defeat of the Turkmens, two years later at Geok Tepe, was followed by reprisals against civilians said to have been extensive and brutal (Hopkirk 1990, 404–07).
We can thus conclude that Callwell’s paradigmatic support for overwhelming, rapid, and systematic use of force, intended to make an “overawing” show of force and deprive the enemy of the will to fight, was derived systematically from his paradigmatic commitments. He did not change this view after the war so much as strengthen and entrench it. Callwell remained committed to a policy of violence in his later writing. Among his later published works is an introduction to a biography of the Russian Tsarist officer Aleksandr Surorov, largely given over to a defense of the subject’s own policies of this kind (Callwell 1920c). There is no evidence in his own lengthy memoirs that he reconsidered these views in any way.

3.3 Political Organization

Viewing counterinsurgency primarily as a military matter, Callwell had little interest in the political organization of occupied territories. Indeed, Small Wars, in both its pre- and post-Boer War editions, makes almost no reference to civilian government. To the extent that it addresses political determinants of conflict outcomes, it sees them as sources of difficulty, not strategic advantage. For Callwell, politics is usually neither a means nor an end in war. It is chiefly something that gets in the way.

Nonetheless, Callwell had a general view of how occupied territories should be organized. His approach was imperial. His ideal of occupation politics appears to have been the peak of nineteenth century British imperial authority in India, where Callwell understood that “the races peopling the Indian Empire still remained in a state of pathetic contentment” (1923b, 1:76). Empire reflected something like a naturally occurring social hierarchy. Later liberalizing reform and advocacy were thus counterproductive. Callwell seems to have preferred that this political order be permanent, the British Empire’s recent past representing its ideal state. If India was emblematic, then the British colonial project in South Africa was a reasonable approximation—the only major difference being the presence of another European-descended population. Once the Boers were under British imperial rule, he seems to have assumed the same strategic and political logic applied.

Callwell’s views in this area seem to have been relatively static. His memoirs mourn the decline of the imperial order, and indicate no re-evaluation of either his moral views of empire as such, or his practical views of how it might rightly be governed. We can say that he learned here only to the extent that these views were consistently derived from his paradigm, the encounter of which with lived experience served chiefly to radicalize it. If the purpose of small warfare was to
impose permanent imperial rule, and the central means was violent, then little room was left for political bargaining, organizing, convincing, and consolidating. The purpose, after all, was not to establish a viable, locally ruled polity—it was to prevent one from being possible.

4 Learning by Doing

However committed Callwell may have been to an imperial worldview, he did not understand himself as engaging in chiefly theoretical, paradigmatic learning. Rather, he thought of himself as learning primarily from history and experience: “Theory cannot be accepted as final when practice points the other way” (1899, 233; 1906, 270). Moreover, while Callwell thought practical or experiential learning was best in almost all instances, he viewed the problem of insurgency as uniquely suited to this approach:

[T]he conditions of small wars are so diversified, the enemy’s mode of fighting is so often peculiar, and the theatres of operations present such singular features, that irregular warfare must generally be carried out on a method totally different from the stereotyped campaign. The art of war, as generally understood, must be modified to suit the circumstances of each particular case. (1899, 3; 1906, 23)

The sheer scale of the British Empire gave rise to conflicts in such different geographies, and against such varied foes, that learning from first principles appeared impossible:

The conditions of a campaign undertaken against a savage race swayed by a despotic sovereign differ so fundamentally from hostilities against gatherings of independent clans, that principles which govern the operations from the very outset in the one case are wholly inapplicable to the other…. It is this extraordinary diversity of conditions which makes the consideration of small wars so complex and so difficult to discuss as one general object. (1899, 21; 1906, 42)

Put differently, irregular war is unified only in lacking the regular linearity of conventional war. The sheer volume of local specificity necessitates learning by doing, rather than the imposition of prior assumptions. This difficulty helps to explain the format—lengthy, scrupulously detailed, and extensively illustrated with examples—that *Small Wars* takes.

Callwell’s faith in this way of learning continued in the field, but was largely constrained to the fine details of operations. An example illustrates. Not long after arriving in South Africa, in dealing with the mixed bag of artillery equipment he had been assigned, Callwell found his men could not get them to work as they should. As they used and reused the heavy guns, he came gradually—but very slowly, for it is difficult to divest oneself of theories of long standing—to realize that, had we possessed the necessary range-finders and other
adjuncts, it would have been better to work guns of the 5-inch or the 4.7-inch class singly in this sort of fighting. (1923a, 2:101)

Only experience could teach these fine, contextual details. Only repeated experience could liberate one from long held paradigmatic beliefs. Callwell’s recollections of South Africa are littered with incidents such as this—instances of learning in a limited, practical, and localized way, that constitute the sort of ad hoc experiment of which learning by doing is composed. However, his most basic “theories of longstanding” remained deeply entrenched. Actual learning by doing occurred only at the margins.

4.1 Intelligence

Callwell’s memoirs record relatively little direct experience of intelligence in South Africa. He spent most of his time in the country either commanding men in the field or awaiting orders between assignments. Some of what he did learn in the country he gleaned from his brief previous deployment to the Transvaal war of 1880-81. This concerned counterintelligence, and what he viewed to be the dangerous role of the British press in informing the enemy:

The details concerning the disposition and movements of our troops were also being cabled home to the great London daily newspapers by their extremely active and enterprising representatives in Natal, and were then being duly served out to the public of the Metropolis…. The intelligence thus broadcasted at home probably did no harm in reality…. But, that such disclosures should even have been made, was utterly indefensible. (1923b, 1:174–75)

These leaks failed to end in disaster only because of the enemy’s ineffective intelligence operations:

[H]ad the Boers possessed an intelligence department and had suitable means been at their command for transmitting news, the exact positions of the detachments and battalions and buts… could have been ascertained by them with unfailing regularity from day to day from the Natal journals. Although actuated by no evil intent, those newspapers in reality did their very best to give the show away…. Their conduct was an object lesson as to the extent to which public interests may suffer in war time at the hands of journalists who are not kept under strict control.” (Callwell 1923b, 1:174)

In sum, only the bureaucratic failings of the Boer side prevented significant damage to the intelligence standing of British troops.

A rare exception to Callwell’s lack of participation in intelligence gather during the 1899-1902 war involved a Boer defection. He offers the following account:
A burgher named Abel Erasmus, who had been a very prominent figure in the Transvaal in the past and who suffered under the imputation of having at times treated natives in a decidedly drastic fashion… let it be known to our Intelligence artists that he was desirous of being captured and had notified where he was to be found, but he had at the same time intimated that he was not prepared to come in voluntarily as he wanted to save his face…. [Later], the farm that he was known to be in was suddenly surrounded by mounted troops. There was a harsh summons to ‘hands up,’ a party burst the door in, and there was Abel Erasmus, a fine-looking old man carrying the air of a Pentateuch patriarch, who with a look of resignation on his face yielded to force majeure. (Callwell 1923a, 2:144–45)

It is far from clear, however, that Callwell learned much from the experience, beyond the depth of indigenous resentment toward the Boers. He reports that, when Erasmus was brought into British occupied Lydenburg, “the whole of the native population gathered… to jeer our principle captive, and had he not been guarded by British bayonets things might have gone hard with him” (1923a, 2:146). The incident does not seem, however, to have significantly changed his opinions. On matters of intelligence, as in other areas, his thinking was largely entrenched when he arrived.

Instead, Callwell learned by doing the most about intelligence during his earlier service in the Intelligence Department in London. Much of this concerned the day-to-day necessities of collecting, collating, and managing the large volume of information the Empire’s intelligence apparatus brought in. The most abject drudgery, he learned, could turn out to be necessary for later military success. Here as elsewhere (see below), he illustrates the point in his memoir with a fictionalized parable:

Somewhere in Southern Africa there existed a race known as the Kissi Kissi tribe… Little information existed about these people or their country… But one day a book, just published… came into the hands of Captain X who was in charge of the Africa section of the Intelligence Department, and he perceived that it told a of a traveller’s adventures in the land of the Kissi Kissis… He took it home with him, read it from cover to cover, and noted that it was full of valuable information… But on the morning of his bringing the volume back to the War Office, he found a troublesome job awaiting him which had to be tackled at once, so he chucked the book into his ‘out’ tray… and he entirely forgot to make any entry as to the work of its contents in his register. (Callwell 1923b, 1:313)

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158 Erasmus was a veteran leader of the 1880-81 war, who had accumulated significant power and wealth in the South African Republic, by sometimes-suspect means. As “Native Commissioner” before the second war, his “name was terror to the natives not only in his own reserve, but for many miles around” (J. P. Fitzpatrick, quoted in Delius 1986, 176).
Sometime later, a mission was sent to visit the tribe (by “a Winston Churchill sort of Colonial Secretary who could not keep quiet and had to be at something”). Lacking intelligence, it went disastrously, offending the tribe’s leader, who had most of the delegation killed. Outraged officials called for a military response. Again however, they faired poorly, and victory was attained only at “a sum at least ten times as great as it would have been had a more appropriate scheme of operations been adopted”. Had Captain X only logged what he learned, all this could have been avoided (1923b, 1:313–18).

Callwell’s parable shows him to have learned at least two things by doing. First, the monotonous work of intelligence collecting is essential to successful colonial warfare—its unglamorousness does not make is any less important. He learned this through years of experience dealing with these matters. Second however, the practice of learning entirely by trial and error in the field is not always to be desired. He shows a commitment to this in Small Wars, recognizing that knowing one’s enemy, however great the difficulty of doing so, is essential to effective counterinsurgency. However, these lessons about intelligence gathering—in effect, learning about how to learn—were themselves the direct result of experience.

4.2 Use of Force

Callwell did not learn a great deal tactically or strategically in South Africa, his thinking on these matters already having been established before he arrived. Nevertheless, there is evidence that he tried. Callwell thought practical learning was essential for military command. We know this because he found it sorely lacking in British military education. Of his time at Staff College, he writes that “We became paper strategists and tacticians… The consequence was that during the Boer War of fifteen years later the senior staff officers in the field… did not know their business” (1923b, 1:277). While he does not indicate whether he counts himself among those so afflicted, he clearly viewed the education received by officers of the day as insufficiently practical.

For his part, Callwell had seen frontline service before, in the Second Anglo-Afghan War, as well as having deployed to (but not actively fought in) the Transvaal War. He had thus likely already acquired knowledge of this sort before the 1899-1902 conflict. Much of the practical combat knowledge he acquired during that later period had to do not with large and foundational concerns, but with small and practical matters. These were the concrete, everyday tactical practicalities of executing the strategy of overwhelming and often indiscriminate
violence he advocated. Thus, while he went into the conflict believing circumstances might necessitate burning Boer settlements would be necessary, he had to learn how to do so in practice on the ground (as noted above, at 4.2, this was not always easy). More tellingly, he found that the conventional troop configurations use to impose this force were problematic in dealing with a mobile enemy: “It was not easy to round up a mobile enemy commandos with columns that were composed mainly of slow-moving infantry” (1923a, 2:149). However, his memoirs and revised manual offer no indication of a programmatic solution to the problem of force structure. Indeed, while Small Wars makes much of the enemy’s unconventional organization, it says little about the conventional configuration of the counterinsurgent side.

In sum, Callwell seems to have learned little by doing about the deployment of armed force in South Africa. This is especially striking, given his commitments in principle both to learning from experience and to the use of force. His views on the matter were likely already set, and experience told him little.

4.3 Political Organization

If Callwell learned by doing little about intelligence and the use of force in South Africa, he learned even less about the political organization of occupied territories. This was not entirely his fault. The war demanded few political skills: the strategy the British pursued left little room for political maneuvering or settlement. However, Callwell’s existing views on the matter likely biased him against significantly rethinking the matter. If the occupied population required strong leadership and responded only to force, then only force was worth deploying. In consequence, Small Wars offers little discussion of politics as such, either in its pre- or post-conflict editions.

Callwell’s memoirs offer occasional, anecdotal indications of the shear absence of political order in the theater of war: a city largely emptied of its population, a region where the indigenous population was governed by neither side (but were friendly to the British), displaced families found “having a very rough time” wandering the back country (1923a, 2:135, 147–48, 149). At no point does this suggest to Callwell the need to impose greater political order. The only attention he gives to organizing the civilian population involves the internment camps—and he raises these only to wash his hands of them (1923a, 2:149–50). In sum, Callwell learned almost nothing by doing in relation to the political organization of occupied countries, at least in this conflict. The record of his life suggests this was the rule, not the exception.
4.4 Other Learning by Doing

If Callwell learned relatively little by doing in the above categories, it is worth noting that he learned a great deal this way in other areas. Since most of his military thought was dictated by his paradigm, he learned through the practice of warfare chiefly at the margins. The most visible such doing in his memoir concerns the day-to-day handling of equipment. On Callwell’s arrival in South Africa, things began almost immediately to go wrong. He and his men found that many of the supplies shipped in with them were of little use (1923a, 2:74). In the interior, he mishandled the poles that affix oxen to their wagons, which, it emerged, differed locally from those used elsewhere. He found himself “in a sea of trouble in consequence” (1923a, 2:78). Later, his men lodged their artillery in a stream, and were unable to move it—because, it emerged, they had failed to disengage the breaks (1923a, 2:79–80). Callwell’s account of his South African experience is littered with such events (e.g., 1923a, 2:82–83, 84, 90). Lacking local knowledge, he gradually sorted through these practicalities by doing what he could—that is, by trial and error.

Callwell’s earlier deployment in the Second Anglo-Afghan War seems to have been experientially fruitful in much the same way.159 There, facing the day to day realities of armed conflict for the first time, he learned to deal with quotidian practicalities: how to load a train of pack animals for a mountain journey, how to load ordnance onto an oxcart, how an elephant can be used to rescue an oxcart when stranded, and so on. Roads were bad. The language was difficult. Bit by bit, Callwell felt his way through. While it is hard to imagine much this knowledge being of great use to counterinsurgents now, or indeed in most other historical contexts, this sort of experience was important to Callwell’s ability to conduct counterinsurgency in practice (1923b, 1:96–134).160

159 The Second Anglo-Afghan War, 1878–80, constituted part of the Great Game between the British and Russian imperial projects in Central Asia.
160 Other comparable instances of learning by doing occur elsewhere in his memoirs, often the practicalities of field deployment. He offers a fictionalized parable, also from his time in the intelligence department, concerning the value of bureaucratic experience. In it, a young officer with no bureaucratic experience assists his immediate superior in drafting a memo that the commanding officer wishes, somewhat inappropriately, to word strongly. He produces the most strongly worded document he can, sends it over his CO’s signature, and lands them both in needless trouble. A second young officer in the same position, this time with a few years’ bureaucratic experience, carefully advises his superior against the course of action: “Just a little display of tact, just a little practical experience... and the whole thing becomes as easy as falling down stairs” (1923b, 1:335).
5 Learning by Simulation

If Callwell was a learner by paradigm, who thought of himself as a learner by doing, then what are we to make of him as a learner by simulation? Since simulation requires an ability to place oneself in the enemy’s shoes, discussion of it begins with his views of the enemy more generally. Callwell understood small wars as imperial wars, generally conducted against non-European peoples. His deeply orientalist views of, for example, the occupied peoples of the Raj, colored his assessment of their thinking. We can recall his characterization of the “ordinary native… [who] lies simply for the love of the thing,” and who is virtually incapable of dealing with numbers or complex abstractions (1899, 31; 1906, 49). He describes an Indian population “in a state of pathetic contentment,” disinclined to think of revolt or resistance against British occupiers (1923b, 1:76). That Callwell was able to take this view of the Indian population despite years of personal experience, and after such anticolonial violence as the 1857-58 uprising—he was born the year after it ended—suggests significant prejudices clouding his ability to understand and empathize with occupied peoples.

Callwell was nonetheless capable of occasional but remarkable cross-cultural empathy. We see this in an incident from the end of his deployment in the Second Anglo-Afghan War. On his way overland back to India, on the road from Kabul to Jalalabad, he and his convoy passed a stone monument erected on a hilltop. “This cairn had been erected in the previous year as a memorial on the spot where the remnant of the British force retreating from Kabul in 1841—20 officers with some 45 men of the horse artillery and 44th—had made their last stand and had been wiped out” (Callwell 1923b, 1:130). The defeat marked the end of the First Anglo-Afghan War, one of the most severe losses in British military history. Past the monument, Callwell’s men came to a settlement.

I had sat down under a tree to watch the village go by, when a venerable, long-bearded Afghan approached with some attendants and salaamed in dignified fashion. We got into conversation, with the eagerly given assistance of my A.D.C. [aid-de-camp] boy; but as neither the interpreter nor yet myself were masters of the Hindustani tongue, exchange of ideas with a gentleman who only spoke Pushtu did not proceed altogether smoothly. It however transpired that this Afghan veteran was headman of the village and that he remembered the combat on the hill. He had no doubt done his share of harassing the doomed army, for “every hut had poured forth its inhabitants to murder and to plunder.” He spoke of the escape of a few sahibs and of their passing near this village; these were evidently the six officers who would not seem to have been engaged in the desperate affray on the hill but who went on, five being killed later and leaving Doctor Brydon, a
solitary survivor, to reach Jalalabad with the tale of disaster. I had not read the history of the tragedy at the time, but on occasions like this one realises what an inestimable boon it must be when in the wilds of Asia to rank as an oriental scholar, and to be able to talk the languages of dwellers in these parts. We separated on the best of terms. (1923b, 1:131)\textsuperscript{161}

It is difficult to think of Callwell, immersed as he was in an imperialist worldview, as culturally sensitive. He was capable of flagrant disregard both for the beliefs and welfare of his opponents. Nonetheless, this incident finds him at his most self-reflexive, putting himself in the shoes of his empire’s erstwhile wartime opponent. He assesses and interprets, with some nuance, the beliefs and intentions of another individual across a significant cultural and linguistic barrier, and does so sympathetically.\textsuperscript{162} Moreover, Callwell understood the limitations of his own thinking here. By recognizing what he could not know, he circumscribed his own cognitive limitations, the better to leverage the limited knowledge he did have. Still, this sort of metacognition represents an exception in Callwell’s work. His paradigmatic biases rarely gave way to considered judgment of the minds of others. As with learning by doing, he learned comparatively little in this way.

5.1 Intelligence

In principle, most human intelligence gathering and interpretation likely requires simulation, insofar as it requires recreating the thoughts and intentions of others. However, Callwell seems to have only partially understood this, or at any rate thought the odds of achieving it were limited in counterinsurgency. If gathering intelligence and acting on it amounts to simulating and thus pre-empting the intentions of one’s opponents, then the putative cultural remoteness of the occupied population stood in the way (1899, 25; 1906, 43). Callwell’s belief that knowing the enemy was both necessary and necessarily difficult went unrevised: he held this position at the outset of the Boer War and there is no indication that he changed it. He learned little about intelligence through simulation, in part because he thought it impossible to do so.

In a limited respect, Callwell’s emphasis on disinformation is relevant here. Providing false information requires at least some effort to infer the enemy’s intentions and likely actions— one could not otherwise select the right false information to spread. It also involved distorting the

\textsuperscript{161} The source of the quotation (“every hut… plunder.”) is unclear.
\textsuperscript{162} We cannot independently evaluate, of course, the other man’s sentiments, nor know whether Callwell’s assessment that they “parted on the best of terms” is accurate, nor know how well the Afghan understood his British interlocutor. The description of the incident nonetheless suggests that he largely did understand, and empathized.
enemy’s ability to simulate: if one cannot learn more for oneself, one can at least make one’s enemy learn less (1899, 35–37; 1906, 54–56). Given the limitations Callwell saw on intelligence gathering, he likely thought this was all one could do.

5.2 Use of Force

Callwell’s commitment to use of force as a policy solution was overwhelming, to the point of marginalizing or excluding alternatives. As we have just seen, he believed that counterinsurgents’ ability to mentally simulate their opponents is necessarily limited. Violence provided an apparent solution to this, cutting through the complexity and uncertainty of cross-cultural communication with unambiguous force.

However, there are reasons to think Callwell was aware violence could be an ambiguous signal. A story he heard from another officer illustrates. During the Ashanti War, one “King Coffee” sent a delegation led by his “chief courtier” to meet the advancing British army.\(^\text{163}\) When negotiations to settle the conflict failed, the British resorted to a demonstration of strength, firing a Gatling gun into the water of a nearby river. The courtier, more than suitably impressed, returned to his tent and cut his own throat. The British were horrified—they had wanted to make an impression, but this was not the intended result. Moreover, how would they explain this to the king with whom they had hoped to settle? To rectify the situation, they struck a committee and charged it with conducting a formal inquiry. It called witnesses, interviewed them at length, and compiled a detailed report, which, “swathed in a net-work of red tape of outstanding quality”, was sent to the king. The king was unimpressed. “But the man’s dead... Will this thing that you have produced before me bring him to life again?” Understanding the answer to be no, and the report a waste of his time, he ordered the remaining diplomat decapitated and the report burned (1923b, 1:322–25).

The story indicates, as do Callwell’s Afghan experiences, a sense of the limits of cross-cultural cognition. Here, the British attempted to signal to the enemy, but got matters wrong twice—once by wrongly predicting the signaling effect of a show of force, and again by compensating for it ineffectually. Here, we can identify simulation at work precisely because it failed. This suggests that the signaling value of violence is cross-culturally ambiguous—a signal,\(^\text{163}\) The story may refer to Kofi Kakari, who was the Ashanti monarch at the time (Vandervort 1998, 87). Callwell heard it from Sir Henry Brackenbury, his commanding officer in the intelligence department. Callwell does not indicate how true he believed the tale was. Nonetheless, it illustrates Callwell’s thinking on this kind of signaling.
however blunt, can be read in multiple ways, and give rise to multiple responses. However, Callwell does not draw this conclusion. Here again, his paradigmatic preconceptions stood in the way: if indigenous populations are best thought of as morally and militarily inferior, given to responding only to violence, then only a show of force will achieve anything.

Similarly, the clearest incidents of empathy at work in Callwell’s South African experience are visible not because they shaped his judgments about violence, but because they failed to. He recognized that burning farms was cruel—he saw its effect on the civilian population—but did not revise his prescriptions accordingly. Likewise, he appeared to recognize also that the concentration camps were inhumane, suggesting empathy with their occupants. However, he could not bring himself to object to the practice of interning civilians. Callwell empathized with individual Boers, especially civilians. When a woman and her daughters whom he had known previously were found wandering the countryside, “almost in rags… [and] half starved” (Callwell 1923a, 2:135), they were offered not just assistance, but more of it than was given to other civilians found in similar circumstances. In a lighter moment, he invited a Boer officer, “quite a decent fellow,” to a sporting event, “under safe conduct” (Callwell 1923a, 2:139). None of this, however, seems to have changed his general belief that British use of extreme force was necessary and effective. Callwell thus learned little by simulation in no small part because he remained so committed to an existing set of beliefs.

5.3 Political Organization

If Callwell learned comparatively little by simulation in general, and placed little emphasis on political order in war, then it should be no great surprise that he learned nothing substantive by simulation about political order. Callwell’s ethnocentric, imperialist worldview supported colonial administration on the existing model. His assessment of non-European peoples subject to colonial rule as passive, dishonest, and generally unfit to govern themselves, prevented him from seeing them in any other way. In South Africa at least, things might have been different. The enemy was ethnically European. The British, having recognized Boer independence in the past, did not question in principle the ability of the Boers to govern themselves. Nonetheless, Callwell did not allow this to cloud his already systematic thinking.

164 The invitation was declined—the Boers claimed to be staging a comparable event of their own. Sporting events, including polo played within firing range of the enemy, were a regular feature of Callwell’s war (Callwell 1923a, 2:98, 138).
Where simulation might have offered an opportunity to critically reassess his worldview, he seems not to have thought doing so was necessary. His memoirs offer no indication that he tried.

6 Conclusion

What Callwell learned about counterinsurgency can be put into a sentence: The solution to the problem of insurgency is resolute and overwhelming violence. Callwell was acutely aware of the difficulties of counterinsurgency—that “Guerrilla warfare is what the regular armies always have most to dread” (Callwell 1899, 105; 1906, 126). If the difficulty posed by insurgents is their ability to prolong a war and wear down one’s willingness to fight, then the appropriate response is to impose conditions that deprive them of the willingness to extend the conflict indefinitely. A below table summarizes descriptive findings. Analytically speaking, what Callwell learned resulted directly from his specific configuration of learning methods—that is, from how he learned. He learned little, relative to the other two men in this study. His sharply constrained outcomes resulted from the way he learned. He acquired what knowledge he had of irregular warfare almost exclusively in a single way.

Callwell’s approach derived overwhelmingly from paradigmatic commitments, chiefly his unquestioned belief in British Imperial ideology. These beliefs constituted a paradigm, organizing and constraining his view of the empirical world around him, such that he was able to make sense of it. Indeed, they seem to have done so all too well, to the exclusion of other forms of learning. On intelligence, local knowledge was essential, but counterinsurgents were almost always disadvantaged. He found a limited solution in spreading misinformation. He had few views of any kind about political order, but those he had drew directly on his imperial worldview. His overwhelming emphasis was on the use of force. He advocated in great detail imposing swift, overwhelming, and demoralizing violence on insurgents. He derived this view from his understanding of non-European peoples. In each area, Callwell derived most of his account from his paradigmatic imperialism.
<table>
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<tr>
<th>Paradigm</th>
<th>Doing</th>
<th>Simulation</th>
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<tbody>
<tr>
<td><strong>Intelligence</strong></td>
<td>• Limited—Callwell saw force as the primary route to victory.</td>
<td>• Limited—Callwell’s imperial biases limited his ability to assess the enemy’s intentions and thus likely actions.</td>
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<td></td>
<td>• Since this force was to be broad, rather than narrowly directly,</td>
<td>• His biases also led him to view occupied peoples as untrustworthy sources.</td>
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<td>intelligence was less important.</td>
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<td>• Intelligence gathering seemed less important because colonial</td>
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<td>peoples were not to be trusted as sources.</td>
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<td></td>
<td>• Limited—paradigmatic bias limited interest in intelligence gathering.</td>
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<td></td>
<td>• Thus learned only occasionally and incidentally in this way.</td>
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<tr>
<td><strong>Use of Force</strong></td>
<td>• Overwhelming—Callwell based most of his conclusions about counterinsurgency on a paradigmatic commitment to violence.</td>
<td>• Limited—a preference for the use of force and poor understanding of occupied peoples led Callwell to discount evidence violence could counterproductively antagonize them.</td>
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<td>• Force must be extensive, rapid, and resolute.</td>
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<td>• It must also be directed to awe or otherwise psychologically influence the “oriental” enemy.</td>
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<tr>
<td></td>
<td>• Moderate—since Callwell’s account of how and when to use force was dictated by his paradigm, he learned little by doing.</td>
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<td></td>
<td>• Most of what he did learn concerned quotidian matters like equipment handling.</td>
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<td><strong>Political Organization</strong></td>
<td>• Moderate—since expanding and entrenching empire is the goal, right political order is permanent imperial government.</td>
<td>• Negligible—colonial bias and distrust of politics led him to learn virtually nothing here.</td>
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<td>• Movement toward local rule risks producing instability.</td>
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<td></td>
<td>• Bias against politicians curtailed an extensive or detailed account.</td>
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<tr>
<td></td>
<td>• Negligible—Callwell was interested in neither politics nor occupied peoples, and thus gave it little practical attention in the field.</td>
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<td></td>
<td>• Also, the Boer War offered few opportunities for learning in this area.</td>
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These commitments were such that other forms of learning occurred chiefly at the margins. Callwell learned by doing mostly where his paradigm was silent, neither shaping beliefs nor curtailing inquiry. This occurred chiefly on a small scale. Thus, he learned by trial and error when dealing with equipment in the field, and when determining how to carry out the actions his paradigm dictated. What he learned by simulation was often distorted by his paradigmatic commitments. When he arrived by simulation at beliefs that conflicted directly with his imperial worldview, he generally ignored them, and drew few broader systematic conclusions.

This meant that little multiplication across methods of learning, or indeed across problem areas, could occur in Callwell’s case. His singular emphasis on one method and one solution to one problem meant that he necessarily learned little from interaction between methods. He could not have, because there was scant variety of methods or lessons to interact. Nor is there clear evidence that he self-consciously attempted to do so: he seems to have believed his extant insights were sufficient. In contrast to Ewald and (as we will see) Galula, Callwell seems to have little doubted his own solutions to the problems he faced.

In sum, Callwell learned relatively little about the complex nature of insurgency. What he did learn focused chiefly on the content of his paradigm. Most change in his thought consisted in an expansion and radicalization of his extant paradigmatic beliefs. Where he had previously seen a range of nuances, limitations, and exceptions at work, after the war he saw few. We know this both because he detailed it in his memoirs and because he revised Small Wars accordingly. The revised manual thus replaces a qualified approach to counterinsurgency with a largely unqualified one. What little he did learn was dependent upon his paradigmatic beliefs. These were in any number of ways objectionable. Callwell often badly misunderstood his enemies along racial, ethnic, and related lines. Instead, these assumptions were useful simply because they gave structure to the complex series of interactions that comprised what he learned from history and experienced in the field. These beliefs, however incorrect, imposed cognitive order on an empirical reality that he would otherwise have experienced as chaotic, disordered, and resistant to policy formulation. In some limited sense, any mental order imposed on the world was better than none. In imposing it, he made policy-relevant conclusions possible. Still, cognitive development driven by paradigmatic assumptions made other forms of learning difficult. Despite Callwell’s stated commitment to practical learning, he did little of it that contributed meaningfully to his counterinsurgency approach. Distortions of cross-cultural
understanding, drawn from his paradigm, made simulation less effective still. When it did occasionally work, he tended to disregard it. This suggests strongly that overemphasis on one mode of learning has consequences. Methods of learning can act as barriers to one another. Since different methods yield different kinds of knowledge in different ways, overemphasis on one method can counterproductively limit cognitive development.  

Put differently, it sharply curtails what one can learn about complex phenomena.

We can identify the cognitive process at work as learning, but only in a quite limited sense. Callwell’s cognitive processes occurred in line with one of the models—he learned by paradigm—and did so in a way linked to pragmatic consensus about what he learned: that is, about the conduct of counterinsurgency. We know his conclusions were objects of consensus, at least among many British military officers of the period, because they said so. The British Chief of General Staff, N. G. Lyttelton (1906), praised the text of Callwell’s manual in a brief preface to the Third Edition. Porch (1996) and Whittingham (2012, 591) both identify Callwell as the most influential British counterinsurgency theorist of his time. Indeed Anglim (2008) finds Callwell’s intellectual influence on British warfare persisting as late as the early stages of WWII. Thus, despite the limited nature of Callwell’s learning, there is very little doubt that what he learned was accepted by his peers, as was how he went about learning it, since his paradigmatic assumptions were those common to British imperial officers of his day (see section 3 above).

Whatever his limitations, Callwell’s remaining career was mixed. He was passed over for promotion to general in the decade following South Africa, and never again commanded any number of troops in the field. He retired in 1909, but returned to service as a staff officer during WWI. In 1917, he was promoted to Major General and knighted. As a military liaison to prerevolutionary Russia, and while traveling the borderlands of the Ottoman Empire, he collected intelligence. However, his involvement in planning the disastrous Gallipoli campaign hurt his reputation (despite his having opposed the attack), and he retired again in 1918. He continued to publish actively on military matters until his death in 1928 (Gray 1996, 459–62). The Boer War itself became one of the signal events of British military history. It remains among the starkest modern cases of the violent policy Callwell endorsed and helped to execute. It also

\[165\] Callwell’s learning processes were distinctive in other ways. His memoirs repeatedly make use of fictionalized narratives, suggesting an additional mode of learning, based on thought experiments.
contributed to conditions for the century of South African politics that followed, and thus for the
institution of Apartheid.

A decade before his second deployment to South Africa, Callwell briefly visited Algeria. In his memoirs, he later reflected that

We in this country somehow cherish the illusion that nobody can colonise except ourselves; but this visit to North Africa, and later ones, have convinced me that, all things considered, we could not have made a better business of developing and civilising that part of the world than the French have. They have not, it is true, started on the ‘self-determination’ tack yet—and after witnessing the results of our experiments in that direction they will perhaps think twice before they do. (1923b, 1:343)

Callwell was, in his way, prescient: decolonization on Algeria would prove painful indeed for the French. Their experience in Algeria of how to fight counterinsurgent war, and of how to deal with self-determination, lies at the heart of the following chapter.
Chapter 5
David Galula and the Algerian War

Few conflicts are as central to the twentieth century experience of decolonization as the Algerian revolutionary war against French imperial occupation (1954-62, hereafter the “Algerian War”). The war was transformative for both colonizer and colonized.\textsuperscript{166} It created the modern Algerian state. In France, it brought down the Fourth Republic, giving rise to the Fifth. It was, in many respects, the defining event of postwar French politics.\textsuperscript{167} It was also an important case of twentieth century irregular war. The French-North African counterinsurgency theorist-practitioner David Galula served two years in Algeria, where he intended to “test certain theories I had formed on counterinsurgency warfare” (Galula 1963a, 1). He developed many of these ideas while observing revolutionary warfare in what he understood to be its ideal form: that of communist insurgency in China. He went on to write perhaps the most influential counterinsurgency manual on record.

This chapter assesses what Galula learned in Algeria, and how. Galula was the most effective learner in this study, acquiring detailed knowledge of counterinsurgency across all three policy problem areas. He learned effectively about intelligence gathering and use of force, and learned a great deal indeed about the imposition of political order.

These outcomes resulted from his expansive and heterodox application of learning methods. I find that Galula learned effectively across all three models of learning, applying these to varying degrees to the three policy problems considered here. Moreover, this heterodox inclination seems to have had benefits. Galula was able to coordinate across modes of learning, limiting conflict and inconsistency across them and permitting cross-pollination between them. The result was an especially complex and fruitful pattern of policy learning. These learning outcomes correlated with his military performance in Algeria. By his own account, he succeeded

\textsuperscript{166} Alternately, the Algerian Revolution—I term the conflict the Algerian War in line with common English usage.
\textsuperscript{167} Along with decolonization in India, the conflict is also closely linked with the emergence of postcolonial theory, directly influencing precursor works by Franz Fanon (1965; 1967), and directly influenced two generations of French academics, including Camus (1960; Carroll 2007), Derrida (1998), and Lyotard (1993).
expansively in purging insurgents from his district, on both political and military terms. Indeed, he eventually learned that the Algerian insurgents regarded his district as a lost cause, and had opted to avoid it entirely.\textsuperscript{168} Below, I begin with a historical overview of the war itself, followed by a brief account of Galula’s role. I then consider his learning processes concerning intelligence gathering, use of force, and political organization. I close with a summary and analysis of findings.

1 The Algerian War

Algeria is distinct in French colonial history both in the scale of settlement that occurred there and its degree of integration into the French state. Algeria became a French colony in 1830, and formally part of France itself in 1881.\textsuperscript{169} By 1889, settlers numbered 430 000, half of them Europeans of non-French origin.\textsuperscript{170} Still, the country remained demographically imbalanced: by the mid-twentieth century, the European population was about 1 million, whereas, the Muslim population was about 9 million (Evans 2012, 31). Active calls for decolonization began in the early twentieth century.\textsuperscript{171} During WWII, Algiers was liberated by American and British rather than French soldiers—the “aura of colonial invincibility” vanished, and Algerian independence began to look possible (Evans 2012, 80). Limited French reforms did little to mollify Algerian nationalists. Independence for Morocco and Tunisia, and France’s impending loss in Indochina, undermined French claims that Algerian independence was unthinkable. From 1945 onward, the country descended slowly into war, as political rallies gave way to sporadic and then organized guerrilla and terrorist violence.

\textsuperscript{168} Since we have no independent account of his performance, we must take Galula at his word on this. That said there seems no reason—either in Galula’s writings or in third party accounts of Galula himself—to question his version of events.

\textsuperscript{169} Pre-French Algeria was in principle part of the Ottoman Empire, but was in practice substantially independent. When French forces arrived, the Ottoman Sultan elected not to send troops to defend it (Evans 2012, 7–8). This prolonged period of colonial occupation is distinct from that of Morocco, which France occupied from 1912, and Tunisia, occupied from 1881. Both were protectorates, and were not integrated into the French state as Algeria was.\textsuperscript{170} All settlers became French citizens, with full political rights (Evans 2012, 19–20). By contrast, the Arab and Berber Muslim majority were legally recognized as French nationals, but could vote in French elections only by renouncing certain culturally distinct rights, among them recourse to Sharia law. Thus, full political rights were available only to those willing to abandon their own culture. The history of the legal status of Algerian Muslims (and also of Algerian Jews) over the colonial period is long and complex, subject to frequent revision as authorities attempted to square colonial occupation with the rights of settlers, and with the values of French republicanism. For a review, see Shepard (2008, 19–54).

\textsuperscript{171} Not all reformers favored independence—many called for full integration with France, including full citizenship for Muslims (Evans 2012, 35–38, 43–44). However, failure to achieve this and other alternative solutions gave rise to increasingly radical sentiments among Algerian dissidents, as reformist leaders were supplanted by nationalists.
The war proper began in 1954. It was irregular throughout. The Bloody All Saints’ Day attacks, on 1 November 1954, by the FLN (Front de Libération Nationale) set the stage (Horne 1977, 90–96). The FLN fought a classic guerrilla campaign in rural areas, employing bombings, shootings, and sabotage, intimidating and extorting rural populations. Throughout the first portion of the war, Arabs and Berbers bore the brunt of violence: “Over the first two and a half years of the war 6,352 against 1,035 Europeans were estimated, as a minimum figure, to have been killed in FLN attacks against civilians” (Horne 1977, 135). The insurgency then grew apace until the French government substantially increased its military commitment, in April 1956. For a time, French military fortunes improved. It is during this period that Galula headed a sous-quartier (subsector) in Greater Kabylia with, by his own account, remarkable success. The FLN’s strategy was nonetheless effective, in the long term. Like the other insurgent movements in this study, its approach exhibited traits of complexity: it involved a decentralized structure, with local units operating independently and unpredictably. It also adapted relatively freely, outpacing its French opponents.

The most visible instance of urban warfare, and the most famous incident of the war, was the Battle of Algiers, which peaked from January to March of 1957. At no point was it a battle in the conventional sense. The FLN employed guerrilla and terrorist tactics: bombings, shootings, shoot-outs at close quarters, and assassinations, often directed at non-military targets (Evans 2012, 201). The French responded with arrests, weapons seizures, and the like (Evans 2012, 207). Moreover, they undertook a vigorous, and now infamous, practice of torturing captured militants. “Intelligence is capital,” a senior officer declared, and the French army set out to get it however they could. Torture and other mistreatment was systematic and significant in scale: by some accounts, 3000 Algerians disappeared (Horne 1977, 198, 202). In the end, the French claimed victory in Algiers, only to leave the country five years later for good, having won in the short term, but ultimately lost the war.

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172 Throughout, France officially regarded the conflict as a matter of law and order, and of suppressing a few extremists. They thus never formally viewed the events as a war and refused to view Algerian claims to self-determination as legitimate.
173 The purpose of such violence was likely to consolidate FLN control over the nascent national liberation movement (Krause 2014).
174 For a nuanced account of Algerian strategy and tactics more broadly, drawing on FLN documentary sources, see Derradji (1997), who shows FLN strategy and tactics little resembled those of communist revolutionaries.
Throughout the conflict, the broader French strategy was mixed, and often confused. Galula (1963a, 64) complained that “the order was to ‘pacify.’ But exactly how? The sad truth was that, in spite of all our past experience, we had no single, official doctrine for counterinsurgency warfare.” This lack of doctrinal specificity gave rise to a range of strategies and tactics across the rural districts of the country. In some, commanding officers fought an all out war against insurgents, believing that only trenchant violence would quell revolt. In others, they were so driven by the desire to please the population that they undertook almost no countermeasures at all (Galula 1963a, 64–68). This strategic and tactical uncertainty offered Galula the opportunity to experiment.  

2  

Galula in Algeria  

Galula’s personal history put him at a unique angle to the Algerian war. Born in 1919 to a Sephardic Jewish merchant family in Sfax, Tunisia, Galula studied in the secular French colonial education system. In 1924, his father acquired French nationality for his family, and moved them to Casablanca. Galula attended St Cyr and graduated in 1939, in the last class before the German occupation. He was removed from the officer corps by the Vichy regime, but remained attached to the military, where he is thought to have acted as a spy for the Free French government. He rejoined the French army when the Allies regained Casablanca in 1942.  

Galula spent most of the postwar decade, through 1956, in East Asia. The experience was transformative. He served 1945-49 as a military attaché in Beijing, where he learned Mandarin. When the communists seized power, he was transferred to Greece, where he witnessed a much less successful communist insurgency. Returning to Asia in 1951, he took up a post as representative to the British authorities in Hong Kong. From there, he observed at a distance the slow French loss of Indochina, as well as the American-aided campaign against the communist Huk guerrillas in the Philippines (Mathias 2011, 3–10). Each insurgency followed the process formalized by Mao, which Galula studied carefully (Mao 1961).  

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175 The war was distinctive in other respects as well. It represented an important step in the mechanization of counterinsurgent combat. It has been called “the first helicopter war.” See: Shrader (1999). On mechanization generally, see Lyall and Wilson (2009).  
176 Interestingly, despite the geography of his birth, and the war in which he served, Galula lived most of his life in French and later English. He never learned more than a few words of Arabic (Cohen 2012, 16).  
177 As Cohen (2012, 44) notes, there is some ambiguity as to which intelligence service Galula actually served.  
178 Galula’s brief but extraordinarily full life is discussed in Cohen (2012), Mathias (2011) and Marlowe (2010).
He brought the lessons of these events with him to Algeria, where he served two years. He spent all but four months in one part of Kabylia, an ethnically distinct region lying east of Algiers, where he served in a battalion overseeing a *quartier* roughly five square miles in size, along the Mediterranean coast. Within this, he was assigned command of a *sous-quartier* a few square miles in size, on the southern slope of a low mountain ridge. The *quartier* as a whole had a population of roughly 15,000, settled mostly in villages; Galula reports his portion of this was settled in half a dozen villages and hamlets. The company he commanded numbered 152 men on paper. In practice, it was reliably less (Galula 1963a, 40, 47, 55–56, 126). The assigned task was to “pacify” the *sous-quartier*, eliminating the rebel threat within it.

The story of how Galula attempted to do so—with great success, by his own account—comprises most of *Pacification in Algeria* (Galula 1963a). He drew much of his approach from his observed knowledge of insurgency in East Asia. Adapting to local conditions and practical limitations, he also improvised on the spot. The text—written in autobiographical narrative form, as a report for the RAND Corporation—details the successes and pitfalls of his efforts. Its structure is narrative, detailed, and frank about his own successes and failures. Galula is also frequently critical of his superiors, of political management of the war, and of those who did not see the benefit of his approach. The tone he takes in this regard may reflect the war’s outcome—believing he had found a route to victory, he nonetheless watched his government cede the country to the rebels.

### 2.1 The Manual—What Galula Learned

*Counterinsurgency Warfare: Theory and Practice* (Galula 1964), the slim volume of systematic counterinsurgency theory that resulted from these experiences, likely influences current practice more than any other single work. Running to a scant hundred pages, it details a step-by-step, rigorously systematic approach for the defeat of insurgency. The text differs sharply from those produced by Ewald or Callwell in that it self-consciously describes a strictly staged approach to counterinsurgency. Where many previous manuals had offered general assemblages of strategies and tacts, Galula’s approach is relatively coherent and unified, having

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179 The report was classified as “confidential” until 2005, and was thus unavailable to most counterinsurgency theorists and scholars of the period (Marlowe 2010, 8–9).

180 A recent Google Scholar search (20 November 2014) turned up 1269 citations—more than manuals by Ewald (1991; 2010), Callwell (1906), Trinquier (1964), and the US Army and Marine Corps (2007) combined. Authors of the US Army field manual cite it as an influence, and it is widely cited as an important text.
a comparatively narrative structure. Counterinsurgents must proceed in a fixed, stepwise way from one stage to another, defeating insurgency by gradually rolling back the cumulative stages of guerrilla movement toward victory.

Galula’s formalized approach thus proceeds through a series of phases, from an initial assault on the insurgency, to the settlement of troops among the civilian population, the establishment of a civilian government, and the eventual military defeat of the revolutionaries (Galula 1964, 75–94). Throughout, while politics take priority over violence, the political agenda itself is instrumentalized to the end of victory. Following Mao, insurgents choose their political agenda pragmatically, taking up whatever cause will appeal to the population at large. A counterinsurgent political agenda does much the same, adopting whatever cause serves the purpose of attracting popular support (Galula 1964, 8, 11–16, 71–73). The manual, written in English in America, was largely ignored in France. Indeed, it exerted relatively little immediate influence on American policy as well (Cohen 2012). However it has more recently become extremely influential, through its rediscovery by US counterinsurgency strategists.

3 Learning by Paradigm

Like Ewand and Callwell, Galula learned in part by way of preexisting paradigmatic commitments, and like them, he left no systematic statement of political views. Nonetheless, much can be reconstructed both from his extant written works and from the statements of those who knew him. Galula’s primary political commitments were somewhat heterodox. Like Callwell, he was a supporter of paternalistic European imperialism. A recent biography (Cohen 2012, 3, 4) notes that he “wholeheartedly embraced the French colonial cause.” He was “convinced that French patronage resulted in a higher standard of living… As such, Galula believed that the French system was to the benefit of both the colonizer and the colonized.” This belief, however, seems to have been tempered by a broad secular humanism (Cohen 2012, 56, 181). Galula specifies eight phases: first, an initial assault on and expulsion of guerrilla forces; second, the establishment of static counterinsurgent forces; third, controlling and protecting the population; fourth, assault on the political wing of the insurgent group; fifth, elections for new local leadership; sixth, the testing of those leaders; seventh, the organization of a political party to represent the counterinsurgent cause; and eighth, the elimination of any remaining insurgents (Galula 1964, 75–94).

182 This is striking, given how close Galula was to the center of American decision making in the early years of Vietnam. He knew William Westmoreland, and at Harvard met and briefly befriended Henry Kissinger (Mathias 2011, 102; Marlowe 2010, 49–52). He was a participant in a counterinsurgency symposium at RAND (Hosmer and Crane 1962) that was and is well known. For his account of on Vietnam, see Galula (1967).
54, 113). He viewed occupied people as rational, thinking persons in a way Callwell could not. His counterinsurgency prescriptions reflect this, and exhibit a distaste for needless violence.

Perhaps chiefly however, he was ardently anticommunist. This belief dates at least to his time in China—Marlowe (2010, 26) cites an American acquaintance in Hong Kong who knew Galula to be “fiercely anticommunist.” Cohen (2012, 20) suggests that he may have been identifiably anticommunist as early as his high school years. As Kelly (2010) has argued, anticommunism prevades Galula’s work. He justified disagreement with certain French newspapers by calling them “crypto-communist” (Galula 1963a, 12). He ascribed the initial slowness of the FLN’s spread across Algeria to their refusal to “accept expert communist advice” from established Soviet- or Chinese-allied governments (1963a, 18). The Chinese communist revolutionaries alone were “the masters of the game” (1963a, 69). Others succeeded by immitating, or were defective to the degree they do not. On arrival in Algeria, Galula was genuinely surprised to find French troops committed to the cause: “I expected to find reflected among the draftees the fact that 25 percent of the French people vote communist. I expected to have to deal with soldiers who loathed Army life, who would question the reason of [sic] this ‘colonial war’” (1963a, 49). To a greater degree than Galula’s other political preconceptions, his anticommunism colored his thinking, giving rise to practical strategy and tactics. In practice, he focused on Maoist guerrilla warfare, which he viewed as central to successful revolutionary violence. He gave Chinese communist insurgency, and parallel Asian insurgencies, a central role in his manual. At times, these references can seem to overwhelm the slim, 99-page text (Galula 1964, 2, 3, 7, 10, 13–15, 17, 18, 22, 24–26, 30–39, 51–52, 62, 68, 71, 73–74, 94, 96, 97).

He spoke from experience, having studied these wars at length, both directly and indirectly. Galula had read excerpts from Mao’s military works through an early translation (Hanrahan 1953), before he learned Chinese, and likely went on to read him at greater length in the original (Cohen 2012, 76). In contrast, since he attended an abbreviated six-month course at St-Cyr (the last before WWII), he was not assigned to read any of the classics of French colonial warfare. He refers to them nowhere in his subsequent works. He thus seems to have developed

183 In contrast, his published works make few explicit references to the broader project of imperialism.

184 That he admitted his error in prejudging French troops (“I was completely wrong”) indicates the extent to which he was nonetheless willing and able to revise his own views and the expectations that flowed from them—a matter to which I will turn below (Galula 1963a, 49).

185 Galula’s correspondence of the early 1950s also frequently referred to Maoist insurgency. In contrast, it made no reference at all to Algeria before 1956, the year of his deployment (Cohen 2012, 55, 76, 113, 127).
his ideas about colonial or counterinsurgent war in relative isolation, reading Mao more than
anyone else.\textsuperscript{186} Taken prisoner for a week in 1947 by Chinese communist revolutionaries, he
allowed later that he had been treated well. The insurgent emphasis on indoctrinating prisoners
impressed him, and contributed significantly to his earliest pronouncements on insurgent and
counterinsurgent methods, articulated in a 1956 field report from Algeria (Galula 1963b).\textsuperscript{187} Still,
his admiration for these methods occurred always in the context of opposition to their goal. “It is
only fair to warn the reader,” he noted in \textit{Pacification}, “that I too had an axe to grind” (Galula
1963a, 69).

His purpose in recounting his Algerian experience was to explain and defend the system
of counterinsurgency he applied there, a system he had already largely thought out.\textsuperscript{188} Many
components of Galula’s approach mirror Maoist precepts. For example, we may consider Mao’s
(1961, 93) famous analogy for the relationship between the rural populations and revolutionaries:
“The former may be likened to water and the latter to the fish who inhabit it… It is only
undisciplined troops who make the people their enemies and who, like the fish out of its native
element, cannot survive.” Galula’s account of the role of population follows Mao closely: “If the
insurgent manages to dissociate the population from the counterinsurgent, to control it
physically, to get its active support, he will win the war” (1964, 6).\textsuperscript{189} Galula’s overriding
concern with protection and allegiance of population derived from his concern that
revolutionaries, if properly schooled in Maoist methods, would treat the population as both the
theatre of war and the source of resources with which to fight. For both Mao and Galula, this
gave rise to a staged approach in which the population first had to be physically controlled, and
then politically propagandized, before it could be organized politically, making a final military
defeat of the enemy possible. Indeed, Galula tied the stages of his approach explicitly to the

\textsuperscript{186} We thus have a relatively clear picture of Galula’s reading on colonial warfare, and it was limited, with the
classics of colonial warfare exerting surprisingly little influence on him. Mao’s dominance was overwhelming.
Cohen (2012, 157–82) links Galula to the extant French colonial war literature, but offers little substantive evidence
of direct influence. Rid (2010, 731) identifies a pattern of commonalities between Galula and such authors as
Lyautey and Gallieni, but provides little causal evidence of a linkage.

\textsuperscript{187} By contrast, Galula takes relatively little interest in the concurrent revolution in Cuba (Galula 1964, 1, 2, 6, 14–
15, 96), drawing no strategic or tactical advice from it, and making no reference to its chief theorist, Che Guevara.
He discusses the Greek communist insurgency almost exclusively as an example of what can go wrong for
insurgents (Galula 1964, 2, 7–8, 12, 23, 27, 52, 68, 96).

\textsuperscript{188} Nonetheless, he claimed to derive it from experience, not preconceptions, having observed communist
insurgency in Asia (Galula 1963a, 69). Experience played a role, as I demonstrate below.

\textsuperscript{189} In following Mao, Galula (1963a, 70) is occasionally driven to strained metaphors: “They were Moslems and we
were not. The rebel fish could swim better in the Moslem water than the counterinsurgent land mammal.”
stages he identified in Maoist insurgency, which he intended to gradually reverse (Galula 1964, 29–39, 75–94).

Galula did not derive the whole of his approach from Mao, nor did he lack original insights. Still, his thinking on the subject was profoundly conditioned and constrained by the assumption that insurgency is a phenomena chiefly occurring in and derived from a communist, anti-colonial context. This assumption forced Galula (1964, 39) to carve out an exception for the FLN, casting its methods as a “bourgeois-nationalist… shortcut”, according to which “The goal of the insurgent is limited to the seizure of power.” Absent communist goals, Galula assumed no broader political goals were at work. Anti-colonial nationalism as an end it itself (and any number of other possible ideological motives for revolution) seems to lie beyond the scope of his paradigmatic commitments. This is not to say that Galula was blind to alternatives. He was able, after all, to see something other than communist insurgency at work in Algeria, and to account for it theoretically. However, he could only conceive of it as a derogation from the Maoist-communist norm. His paradigmatic commitments to anti-Maoism were thus broad and deep.

3.1 Intelligence

Galula’s account of intelligence gathering is much more extensive than Ewald’s or Callwell’s, detailing the cultivation and collection of intelligence from the population at large. It derives in no small part from his paradigmatic commitments. Galula’s paradigm follows Mao in locating success in popular support, and thus in protection of population. If population is central to counterinsurgency, then population must be the primary source of intelligence, and must be provided with conditions under which it can (indeed may prefer to) provide information.

“Intelligence is the principal source of information on guerrillas, and intelligence has to come from the population, but the population will not talk unless it feels safe, and it does not feel safe until the insurgent’s power has been broken” (Galula 1964, 50). Put differently, the core problem of intelligence gathering in counterinsurgency is “the population’s fear of the insurgent and… its lack of confidence in the counterinsurgent” (Galula 1964, 84). The problem is cyclical: with poor intelligence, counterinsurgents provide poor security, and in the absence of security, intelligence will not be forthcoming. Galula suggests cutting into this cycle of enforced silence by seeking out “those inhabitants who have the least to win and most to lose through the insurgent’s victory. The insurgent’s program usually indicates who they may be” (1964, 84). Under conditions of
communist insurgency, these are presumably those who control land, the means of production, or other conventional targets of Marxist critique.

By his own account, Galula’s intelligence gathering in Kabylia met with mixed results. The battalion of which his company was part had an intelligence officer, who was responsible for prisoner interrogation and the like. However, he seems to have produced relatively little useful information, and on arrival Galula found his sous-quartier without a network of sources. He had, thus, to start from scratch (Galula 1963a, 37, 55–58). This gave rise in part to trial and error (see 5.1 below). However, relatively few of his intelligence gathering activities in practice derived substantially from his paradigmatic preconceptions. For example, while he prescribes recruiting informants from among those most incentivized to oppose insurgency, in practice he recruited opportunistically, often collecting intelligence from prisoners under duress and learning to do so as he went. Moreover, the insurgents themselves often intransigently fail to fit Galula’s profile. Instead of class-based units of rural-agrarian revolutionaries, he found in his sous-quartier that “the insurgency… started as a family affair” (Galula 1963a, 43). One man had recruited members of his extended family, armed them as best he could, and led them in terrorizing the countryside: “With a minimum of executions here and there, he established his power over the populace, which was in no position, even if it wanted to, to resist by force” (Galula 1963a, 43).

The insurgent rank and file was united as much by kinship as by class. A relatively narrow group of people was able to impose control on a rural population, taking up the banner of a nationalist cause along the way. This had consequences for intelligence gathering. If the insurgent organization was based on kinship, or on other networked social ties, then their ability to acquire information likely was as well. Galula found in practice that it was largely informants acquired by chance who provided the most information, usually concerning their kinship networks (Galula 1963a, 88–89, 91–92, 115).190 In sum, Galula’s intelligence gathering was informed only in part by his paradigmatic commitments. His preconceptions told him that intelligence gathering was key, but offered little advice on how to go about it. That he often succeeded resulted from ad hoc or incidental arrangements—that is, by doing.

190 See also the emphasis on network analysis in the current American counterinsurgency manual (2007, 305–33).
3.2 Use of Force

Galula’s preconceptions about use of force were more extensively developed, and gave rise to more learning once he was in the theatre of war. However, they were largely negative, constraining rather than encouraging the application of violence. Galula’s paradigmatic commitments suggested that force should be used selectively rather than broadly and arbitrarily, as part of a broader political-military enterprise. Force was a part of the political project, not a substitute for it, as it had been for Callwell and others before. This reflected Galula’s paradigmatic commitments.

Political engagement requires access to the population, which is usually uninhibited by insurgents. Thus, Galula prescribes an initial burst of violence aimed at the “destruction or expulsion of the insurgent forces” (1964, 75), breaking their hold on the population. Troops should then be embedded with the population, to separate and protect civilians from guerrillas (1964, 77). Only with this established, and with a great deal of political work accomplished, can the final (and inevitably violent) task of eliminating the last guerrilla fighters be undertaken (1964, 93–94). These stages, and the close paring of violence with sociopolitical measures, are expressly intended to counter the equivalent linkage of violence and politics in Maoist insurgency. Just as Mao is at pains to locate force in a broader sociopolitical policy for revolution (Mao 1961, 41–46), so Galula aims to balance political and military operations.

In Algeria, this was what he did, or tried to do. On arrival, he set out to establish control of the population. To this end, he divided his company, which had previously been stationed together in a farm, and dispersed it across the rural population. He then gradually attempted to identify and arrest insurgents in the area’s villages, separating the population from the rebels and purging the latter, while making minimal use of force. He did not foreclose violence. Indeed, he was repeatedly and derisively critical of purely psychological approaches, which he saw as ineffective (Galula 1963a, 52–54, 65–68). While he approved of indoctrination, it had to be backed up by force, since civilians were subject to the threat of insurgent violence.

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191 Indeed, Galula notes one of his officers requesting transfer to another region, saying that “He had joined the Army to fight rebels, not to be ‘nice to the population’” (Galula 1963a, 113).
192 During his week as a prisoner of the Chinese Communist guerrillas, he had been impressed by their pervasive attempts to alter the thinking of their POWs (Mathias 2011, 5). So effective were these efforts that POWs returned by the communists to the nationalist government were viewed as permanently suspect. Galula recounts witnessing the government interning its own men, out of fear that they might be communist moles sent back to propagandize or
describes a failed effort in another district to win over Algerians with displays of generosity and trust. These were ineffective when not backed by broader security guarantees. Absent these, the policy amounted to cheap talk. Because the arrangement lacked enforcement mechanisms, French troops and villagers alike concluded (rightly, in Galula’s view) that the exercise amounted to little more than show (Galula 1963a, 92–94, 97): “The theory that the population would join our side once it felt protected from the threat of rebel bands had proved wrong.” Force was necessary, but it too was not enough alone: “The idea that we could forcibly implicate the population on our side had not worked” (1963a, 97). Instead, force must be limited, must be targeted, and must be carefully integrated with a larger counterinsurgent plan. This approach draws directly from Mao, who insisted that

if its political objectives do not coincide with the aspirations of the people and their sympathy, cooperation and assistance cannot be gained… The moment that this war of resistance dissociates itself from the masses of the people is the precise moment that it dissociates itself from hope of ultimate victory. (Mao 1961, 43–44)

In formulating his general account of the role of violence, Galula drew closely on his paradigm.

3.3 Political Organization

In sharp contrast to Ewald and Callwell, Galula located political organization and engagement at the center if his program for counterinsurgency. Here again, he derived his views from his paradigmatic commitments. As we have seen, Galula’s central claim was that “Revolutionary war is a political war” (Galula 1964, 4). While all wars may in principle have a political purpose, insurgency and efforts to counter it are political also in execution: thus, “politics becomes an active instrument of operation” (Galula 1964, 5 emphasis original). In conventional warfare, force is a means to a political end. Here, politics becomes a means. Only by leveraging political causes for civilian coalition building can support be consolidated.193 Galula is clear that politics favors insurgents, who are often able to leverage popular grievances against existing authorities—indeed, this may initially be all they have. However, since guerrillas conduct sabotage. “Thus, the Communists had achieved that trick of having the Nationalists themselves watching their own men!” (Galula 1964, 35).

193 Thus, brute political opposition to communism alone was insufficient to undermine it—an alternative had to be offered. Galula had believed in this need for clearly articulated, if entirely instrumental, alternatives since at least his time in Hong Kong, where he had proposed an agenda of “unifying international democracy” (Cohen 2012, 186, 212) as a counterpoint to Maoist politics.
begin with none of the responsibilities of government, counterinsurgents can do nothing similar (Galula 1964, 11–16).

It follows from the politicization of war that “so intricate is the interplay between the political and the military actions that they cannot be tidily separated; on the contrary, every military move has to be weighed with regard to its political effects, and vice versa” (Galula 1964, 5). Force cannot be employed without first considering political consequences. It must be carefully calibrated to avoid the negative effects of violence on the population. This emphasis on the political is in line with the staged structure of Galula’s program. In each phase, the use of force is geared not to the direct defeat of insurgents, nor toward depriving them of the psychological will to fight, but instead toward depriving them of political support. The phased political process is thus predicated on the political nature of Maoist revolutionary war. Both sides struggle for political control of the population. Counterinsurgency proceeds through a staged process of politically defeating the insurgency. In doing so, counterinsurgents reverse the stages of Maoist insurgency, rolling back insurgent gains.194

This was the preconceived process that Galula set out to test experimentally in Algeria. Because insurgent political organization in his sous-quartier was limited to clandestine tax collection, intimidation, and propagandization, there was no overt political structure to remove. Efforts thus began not with an initial burst of violence, but with propaganda, then moved on to the imposition of basic security, and eventually efforts at imposing political order. Much of this process consisted of ad hoc experimentation (see 5.3 below). Importantly however, the basic shape of the program was dictated by the stepwise logic of his approach. The model he followed mapped closely onto the program for insurgent warfare laid out by Mao. Galula appears to have done well in this way—indeed, remarkably so, given that he faced an insurgency with ideological predilections quite different from Mao’s.

It was not, however, foolproof. When promoted and transferred in April 1958, he found himself in a part of the country gripped by “full-scale war”, with the population hostile and rebels operating freely. He deemed insurgent successes “irreversible” (Galula 1963a, xxiv, 213–40).195 He identifies this as a consequence of mismanagement by previous officers in the region,

194 See section 2, above. On the stepwise structure of Galula’s counterinsurgency approach, and its roots in Mao, see Cohen (2012, 73–88).
195 For a comparable analysis, see Galula’s account of Vietnam (1967).
but the experience nonetheless suggests limitations on what his paradigmatic assumptions could
tell him. His theoretical account called for an initial burst of violence to quell and disperse rebels
before political reconstruction can begin. In his previous assignment, this first step had been
undertaken before he arrived, providing already weakened insurgent forces. In his new district,
no amount of violence served the purpose, such that “rebel bands were operating at company
strength undeterred by enormous losses”. The result “could be aptly summed up in a single word:
fiasco.” While he blames this on his predecessors, he was unable to overcome the level of
entrenched insurgent violence they left him. (Galula 1963a, xxiv, 216, 227–29)

Even his first assignment ended before he was able to undertake the final political stage
of his model, building a party to oppose the FLN. This component of his program therefore went
untested. Nonetheless, we can conclude that Galula learned from his paradigmatic beliefs a good
deal about how to organize counterinsurgent politics. While these beliefs did not always provide
complete instructions, they provided much more detailed prescriptions than did his pre-existing
beliefs about intelligence gathering. Indeed, it is striking that preconceptions derived from
Maoism led him to an effective account in a non-communist context.

4 Learning by Doing

Galula’s strikingly formalistic approach in Algeria suggests a formal approach to
experimental learning. “I felt I had learned enough about insurgencies, and I wanted to test
certain theories I had formed on counterinsurgency warfare” (Galula 1963a, 1). His almost
positivistic emphasis on experimental rigour suggests a resistance to ad hoc or informal trial-and-
error learning processes. In the event, however, a great deal of messy, off-the-cuff learning took
place. The theories with which Galula equipped himself represented not specific empirical
hypotheses, so much as outlines or frameworks from which hypotheses might be derived. Their
role was perhaps analogous to abstract theoretical claims in positive social science, which only
become empirically testable if they are revised into much more specific, contextually located
hypotheses. He could formulate such hypotheses only once he arrived in Kabylia. While he had
already committed himself to the project of isolating, controlling, protecting, and gaining the
support of the population, he had yet to determine in precise terms how to do so. Local
conditions would determine this. Given the chaos of asymmetric war, the resulting learning
process was necessarily messy and ad hoc.
Trial and error learning is most readily possible when things go wrong, and in Kabylia they often did. Some villages proved more recalcitrant than others. The geographical settings of his village outposts proved difficult to defend. A newly established medical clinic found no initial interest, and efforts had to be made to find the ill and treat them proactively.\textsuperscript{196} Elsewhere, policies handed down the chain of command often failed in practice (1963a, 52–54, 92–94). Frequently, his superiors failed to provide the resources he thought he needed (1963a, 87–89, 98, 96). Inversely, sometimes circumstances fortuitously suggested new approaches. Galula found potential allies in the female population of the district: “I thought that Kabyle women, given their subjugated condition, would naturally be on our side if we emancipated them” (1963a, 105). The insurgents had (unlike in East Asia) failed to mobilize women and children. Thus, he conducted a pair of experiments. First, having established a series of village boys’ schools, he arranged for Kabyle girls to attend school as well. Barring some initial resistance from the villagers, the effort seems to have been successful. Second, he had a nurse provide instruction to local women on caring for infants: “The success exceeded all our expectations” (Galula 1963a, 166). In sum, the effect of Galula’s ad hoc experiments in the field was mixed, but often very effective—Galula learned from failures and successes alike.

4.1 Intelligence

As we have seen, Galula arrived in Algeria with relatively few preconceptions about how to gather intelligence. Indeed, while the political engagement and carefully targeted violence he prescribed required reliable human intelligence, he lacked a detailed account of how to gather it in practice. Perhaps for this reason, he engaged extensively in learning by doing about intelligence matters in Algeria. Results varied. Indeed, at times they can appear contradictory, yielding both carrot and stick approaches.

Here as elsewhere, failure was informative. Early in his stay in Kabylia, Galula participated in a large sweep operation to capture a rebel band hiding in a valley.\textsuperscript{197} It failed, largely because of weak intelligence collection before and during it (Galula 1963a, 74–82). In its planning, the operation seemed careful, methodical, and foolproof. In the event, the rebels

\textsuperscript{196} The population lived with their livestock, and “T.B., sores, ringworm, and eye diseases were prevalent” (Galula 1963a, 104).
\textsuperscript{197} Three battalions surrounded the search area on three sides. Two more moved from one end of the contained area to the other. The two groups thus combined to form an ever-shrinking container, which, it was presumed, would eventually catch the rebels (in Galula’s metaphor, they are cylinder and piston, respectively).
escaped. While it is unclear whether or not Galula was surprised by the outcome, at least one other officer present knew well enough to expect the failure, and explained:

   in this sort of terrain an operation becomes worthless a minute after the first sunset. All the rebel has to do is to stay put during the first day, wait for night, and then cross the *bouclage* [troop line] as he pleases, unless he is really too unlucky. Our only chance is to meet rebels during the first few hours of the operation. Then we can hope to finish with them before night comes. (quoted in Galula 1963a, 81)

The operation did detain 60 locals, of whom three proved to have roles in the insurgency. Still, the local population provided little intelligence, and all the rest were released. Failure was instructive: the problem of intelligence in Algeria was not simply one of capture and interrogation (an approach that was dominant elsewhere in the country, as evidenced by the systematic use of torture).

   Intelligence required informants, and informants needed to feel safe. Galula moved his troops to live and work as near as possible to the population (Galula 1963a, 90). Occasional contact alone would not suffice—security needed to be provided, as eventually did improvements in quality of life. Proximity would also make ad hoc intelligence collection easier. His paradigm dictated this much, but how to operate in the villages was less clear, and called for experimentation. He ordered that a rudimentary census be conducted, first in a few hamlets, and then in more detail in the central village of Igonane Ameur: “We had learned from our first experience… that we needed more information than we had previously asked [for]” (1963a, 99).

On this more detailed attempt, the census yielded an unexpected benefit:

   We noted the name of those who were said to be away, and tried to get their present address in France or elsewhere in Algeria. We noted every case in which we could not be shown a recent letter or a postal money order, for the absent person could then be presumed to be with the guerrillas. (1963a, 99)\(^{198}\)

He also imposed a system of passes, whereby arrivals in and departures from the village were recorded (violators were fined in sheep). The purpose was not so much to constrain movement as to remain informed of the local population—it thus served a surveillance rather than enforcement role (1963a, 100).

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\(^{198}\) The presumption, while not certain, is more reasonable than it may sound. “An educated Kabyle does not stay in his village where his education, a costly investment for his family, would be wasted.” Such men worked abroad, sending back remittances, giving rise to a predictable paper trail (Galula 1963a, 73).
Related experiments proved equally successful. Presuming that the villagers had an incentive to reveal little (such was the insurgent threat of violence), he developed the following modest plan. His men would be briefed on a daily propaganda point, and would present it in villages during patrols:

I did not expect great results; I wanted primarily to give my soldiers a feeling that they were actively participating in the pacification work. When after two weeks I checked on the notes made every day, I saw to my surprise that I could form an opinion about the villagers’ feelings: I could see that some had responded to our propaganda, that others had obviously been hostile, that still others had remained noncommittal. Months later, when the village had been purged and pacification was well advanced, the picture I had received by this mechanical process corresponded almost exactly to the genuine attitude of the villagers. (1963a, 101)

Here again, intelligence gathering was reducible, perhaps unexpectedly, to low-key, routinized interactions with the local population.\(^\text{199}\)

Other experiments proved ineffectual. On orders from above, an observatory was installed in a hamlet that “had a magnificent view over the entire south slope” of the mountain ridge forming the whole of his *sous-quartier*. “This kind of direct observation, however, never gave us any worthwhile information” (Galula 1963a, 111). The conclusion is consistent with Galula’s rather localist paradigm, but still needed to be verified. One can imagine his dismay later on, in finding all the troops at his next assignment housed in fortified bases, isolated in high places, away from the population (1963a, xxiv, 220).

Other experiments again led to less cautious and more coercive approaches. In November 1956, an informer identified the entire insurgent cell in one village. A dawn raid led to the arrest of 15, all but one member. Galula returned to his headquarters triumphant: “In the largest courtyard behind my office my soldiers dug holes long enough to allow a man to lie in them and covered with barbed wire. The prisoners were led to their tombs and watched by two sentries” (Galula 1963a, 117). They were kept in this condition overnight. Galula assured each individually, that they would be released if they confessed, no matter what they had done. When no one confessed on the first and second days of this treatment they were denied food on the third. They still would not talk. One of his men found the eventual solution in the form of a

\(^{199}\) Elsewhere, a boy in one of the village schools, otherwise friendly, said to his French military teacher, “if we had guns and ammunition, you would soon be out.” He was presumed to be repeating something he had heard at home, and a note was made on his father’s file. “Nevertheless, I discouraged any attempt by my cadres to use children as informers.” (Galula 1963a, 106)
disused bakery oven. Acting on his own initiative, he forced one of the prisoners into the oven chamber. The prisoner was told a fire would be lit beneath him if he did not confess. The man emerged filthy, screaming, and “ready to talk” (Galula 1963a, 118). The effect, as Galula saw it, was to impose a greater fear than the fear of FLN punishment. He was willing, afterword, to recognize the ethical issues the approach raised:

I wish to make myself clear to the reader on this score. Insurgency and counterinsurgency are the most vicious kind of warfare because they personally involve every man, military or civilian, on both sides, who happens to be in the theater. No one is allowed to remain neutral and watch the events in a detached way…. If anyone seriously believes that mere talk will do it, all I can say is he will learn better when confronted with the problem. This police work was not to my liking, but it was vital and therefore I accepted it. My only concerns were: (1) that it be kept within decent limits, and (2) that it not produce irreparable damage to my more constructive pacification work. (1963a, 119)

Galula does not specify what these “decent limits” would be. He clearly did not think the issue unique to counterinsurgency: “How far to extend the limitations is a matter of ethics, and a very serious one, but no more so than bombing the civilian population in a conventional war” (Galula 1964, 53). His personal assessment of such ethical issues is stark: “As for moral twinges, I confess I felt no more guilty than the pilot who bombs a town knowing of the existence of, but not seeing, the women and children below” (1963a, 119).

This was not the only interrogation technique Galula pressed into service: among Kabyles who had served in the French Army, “with the help of generous libations of Algerian wine, tongues loosened up.” Here again, one of his men began the practice (Galula 1963a, 129). Thus, the ad hoc quality of these experiments appears to have given rise to a range of techniques, from a range of sources, and some being more ethically troubling than others. In general, Galula learned by doing extensively about intelligence gathering in Algeria. This was likely the result of

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200 The use of culinary equipment to contain prisoners did not end there. Circumstances later found Galula holding prisoners “in an empty wine vessel, with their feet tied, watched by a sentry; in still another camp, each prisoner was kept in a large wine drum open at both ends and laid horizontally on the ground” (1963a, 152).

201 Galula seems to have had a good deal of ambivalence in this area. Torture was widespread in Algeria, and regularly included electrocution and water torture of various kinds. Thousands of individuals were affected; many died. Mathias (2011, 62–63) contrasts Galula’s advice with that of his contemporary Roger Trinquier (1964, 21–25), who in his own manual advises habitually torturing of terrorism suspects. Still, Galula clearly believed peacetime laws should not be allowed to govern counterinsurgency. He also called torture during the Battle of Algiers a public relations disaster (1963a, 143fn). On torture in Algeria, especially during the Battle of Algiers, see Horne (1977, 195–201) and Evans (2012, 211–16). The extent of the French campaign of torture has only recently been officially admitted. For related normative issues in IR, see Bellamy (2006).
his relatively lax paradigmatic commitments on the subject, which emphasized intelligence, but did not specify how to collect it.

4.2 Use of Force

The same cannot readily be said regarding the use of force. Galula’s commitment to careful and targeted violence—“the basic rule is never to antagonize at any one time more people than can be handled” (Galula 1964, 34)—seems to have sufficiently limited his conduct that relatively little experimentation, and thus relatively little learning, occurred. Where Galula did learn by doing about force, he did so in small, practical ways. He ordered his men to shoot their automatic weapons in bursts of four, so as to distinguish friendly fire that of the enemy (1963a, 83). Later, during an early morning on a village, he had his men walk in their sock feet, so as to move silently (Galula 1963a, 116). These innovations were incremental, and derived from nothing especially in his paradigmatic assumptions.

Galula’s most significant learning by doing about use of force overlapped with learning about political control. Beginning in the April 1957, he was granted permission to establish a harka, or Algerian militia. Lacking both experience and theoretical precepts about how this might be done, he necessarily learned by trial and error. Thus, for example, he was uncertain as to whether men should serve in their own or other villages, deciding only when some villages simply refused policing by outsiders. Training (delegated to a junior officer) appears to have occurred without incident, and some recruits learned to read along the way. With training completed, Galula employed them in patrols, and as scouts in military operations. Disguised as civilians, they gathered intelligence (Galula 1963a, 169–72). In an explicitly experimental moment, he tested a recruit about whose loyalty he was uncertain. He had a night patrol toss pebbles on the roof of the man’s house, immitating a rebel signal. The man did not respond. When he nonetheless failed to report the incident, Galula sacked him.202

On a larger scale, he tended to learn only in the negative. The sector-level operation described above taught him the relative weakness of large sweeps and other conventional operations, no matter how methodical and well planned (1964, 74–82). In the more violent sector to which he was later assigned, he witnessed what he understood to be the futility of large scale

202 In a later incident, when a harki was murdered on patrol, and a villager was found to have provided information linked to the killing, Galula oversaw the spy’s extrajudicial execution (Galula 1963a, 173; see also discussion in Mathias 2011, 63).
and insufficiently discriminate violence (1963a, 116–19). However, these experiences served largely to confirm beliefs Galula already held. We can likely conclude that he learned relatively little by doing about violence simply because his beliefs were already quite systematic, nuanced, and elaborate, and thus both resistant to and less in need of revision.

4.3 Political Organization

If paradigmatic constraints limited Galula’s learning by doing about force, they had no such effect on his ad hoc efforts at political order, which play a central role in his narrative of the period. Even more than intelligence, Galula’s preconceptions dictated a strong focus on politics, undertaken in staged operations. However, these beliefs did not dictate clearly and completely how each stage was to proceed. The effort thus called for a great deal of experimentation.

Galula began in a position of weakness, the population being largely controlled covertly by FLN cadres. His efforts at governance started with communication—with propaganda. He had posters hung around a village. Propaganda, he reasoned, could both inform the population and could be a site of interaction between counterinsurgents and villagers. The project was not without difficulty. When the posters were torn down, he assigned villagers to protect them, telling them they would have to provide unpaid manual labor if the posters were damaged again (Galula 1963a, 72–73). Moreover, attempts to have troops indoctrinate villagers verbally in meetings had little initial effect (Galula 1963a, 101). Still progress happened. The posters stayed up once they were protected, and propaganda talks became a site of ad hoc intelligence collection (see 5.1 above).

It also occurred to Galula early on that he could exert another form of control over the population: bureaucracy. Local residents could not acquire papers to visit or work in France without his permission. He attempted to use this as a means of intelligence collection, and later described it as such in his manual (1964, 84). “Invariably they refused to talk. But I was

203 Occasionally, Galula’s men seem to have had a tin ear for messaging. In one instance, after Galula had addressed a village meeting, a junior officer followed up with a thinly veiled threat (1963a, 83, 86). At times, keeping his men in line and on task, as he saw fit, was difficult (see introduction to section six, below).
204 Galula later concluded that the larger propaganda campaigns the French employed in Algeria were ineffectual. “If there was a field in which we were definitely and infinitely more stupid than our opponents, it was propaganda” (1963a, 143). That said, he may have been biased against it from the start, believing—in line with his paradigmatic commitments—that psychological efforts had value only when backed up with carefully coordinated force.
confident that my approach would pay or sooner or later, for I had in my hand the ultimate weapon—bureaucratic inertia” (1963a, 102).

His largest political experiments lay in staging local elections. When Galula initially instructed the local population to elect village leaders on their own, they flatly refused. In response, he selected at random several villagers to provide paid manual labor, telling them when they complained that “If you had a djemaa [village assembly] president, he could have designated you better than I did.” When most did not show up to work, they were tracked down and made to work unpaid. He assigned 50 more the next day, confiscating their identity cards (a significant bureaucratic impediment). All consequently arrived to work the next day. When they still did not elect a leader, Galula chose one himself. The appointed man refused to serve (1963a, 85–86, 91).

The matter was not immediately resolved—Galula’s experiments had, for the time being, failed. Nonetheless, successful elections did take place in another village, where a mayor and six councilors were chosen (1963a, 123–24). Eventually, the recalcitrant village elected a government in exchange for the right to use agricultural equipment (chiefly an olive press) in an abandoned neighboring hamlet (1963a, 134–35). Gradually, he brought the villages under effective government. Knowing that Galula could withhold bureaucratic and other privileges, those elected set to work. By March of 1957 (a year after his arrival) a full complement of village governments had been elected in his sous-quartier. “This was the time to replace the stick with the carrot as an instrument of policy” (Galula 1963b, 159). Acquiring additional funding from his superiors, he arranged for infrastructural investment, with projects being chosen by the newly elected leaders. The chosen projects (some others having been vetoed by Galula) included road building, school construction, and the like (1963a, 159–63). The elected governments were thus tied to improved quality of life. While much of the initiative continued to come from Galula and his men, the result seems to have been a real, if modest, success.

In sum, while the need to impose notionally legitimate political order came from his paradigm, Galula was forced to learn how by ad hoc experimentation. He frequently arrived at

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205 He goes on to note, nonetheless, that the bureaucracy was far from perfect as a tool of social control, since it was subject to corruption—a visa could be had in Algiers “for a price” (1963a, 102). Nor is it clear that he ever collected any specific intelligence in this way.

206 A precondition for establishing political order was the dismantling of insurgent political and military operations. Some of this necessarily occurred by force, or the threat of it (see 4.2, 5.2, above). Gradually, insurgents were purged from the sub-district. Throughout, little violence was employed, and none on a large scale.
successful approaches only by failing at others. Building even simple, local, dependent political authority required slow, grinding, gradual experimentation. When something failed in one village, he tried something else in another, returning to the first only when he had found a plausible solution. Two factors, scale and bureaucratic ineptitude from above, seem to have constrained Galula’s efforts. I address the first in this chapter’s conclusion. The second of these was a matter of practical difficulty. Galula frequently claims to have found himself without the necessary resources to pacify as he saw fit. He remarks generally that the French bureaucracy in Algeria was deficient. Propaganda was “fine as long as it cost nothing”—thus his efforts to tailor it locally faced hurdles. When money was sent for local projects, it was allotted in arbitrarily unequal portions across villages (1963a, 18, 96, 160). While supervisory neglect gave him latitude to experiment, it also limited the resources with which he could do so.

5 Learning by Simulation

Galula thought and wrote at length about the thoughts of others—those of both his insurgent opponents and the population at large. This gave rise to extensive analysis of the incentive structures these groups faced and of the psychology with which they did so. In so doing, he drew on the lived experiences of both—that is, he simulated. More than forty pages, almost half of Counterinsurgency Warfare, is given over to assessing the circumstances, psychology, and perceived strengths and weaknesses of insurgents, and to contrasting these with those of counterinsurgents. He coupled this, as much of the analysis above indicates, with attempts to understand the interests and beliefs of the broader population. Because he believed paradigmatically that protection of population was central to success in counterinsurgency, he necessarily had to deal directly and in depth with the population at large. Moreover, isolating insurgents from the population using minimal violence required detailed and nuanced understanding of their beliefs and intentions.

Galula’s simulation extended to his dealings with his own men. Initially, they surprised him: “I expected to have to deal with soldiers who loathed Army life, who would question the reason of this ‘colonial war.’ I was completely wrong” (Galula 1963a, 49). Yet when first explaining his strategy to his charges, he set out to reassess them:

207 Indeed, this general trend toward bureaucratic disfunction appears to have informed Galula’s decision to leverage bureaucratic inertia to his own ends locally, making of it what he could.
Through this lecture and a few others, and from the discussions among the men and the cadres, I managed to spot those who were in agreement with me. These were the men I intended to employ first in my operations. The rest, I thought, would be convinced by results—if I succeeded. (1963a, 72)

These mental assessments of his charges were important, since those convinced to work carefully with the population could be assigned to do so. Those with a predilection for violence could be steered to other work.

Galula’s position in dealing with the population itself was to reserve judgment: “My rules are: outwardly you must treat every civilian as a friend; inwardly you must consider him as a rebel ally until you have positive proof to the contrary” (1963a, 72). He thus recognized limits on his ability to assess (simulate) their intentions, and indeed in what even accurate assessments would help him achieve. This paralleled his distrust of purely psychological approaches to insurgency. He distained fellow officers for whom “psychological action was the answer to everything, not merely the simple propaganda and psychological warfare adjunct to other types of operations, conventional or otherwise.” Such officers believed that the use of force against the enemy was chiefly psychological in its impact: they pursued it “not so much to destroy him but in order to make him change his mind on the necessity of pursuing the fight” (1963a, 65). For Galula, violence had a psychological impact, but force also served to materially compel and constrain. Only with these constraints in place can good use be made of psychological factors. Beyond them, not-at-all subtle violence became necessary.

Galula had colonial biases, and these undoubtedly impacted his assessments of his interlocutors in Algeria. His assessment of local religious practice is indicative: “Islam is not exactly a progressive religion, and the first thing we would have to do if we wanted to lift Algeria out of its morass was to shatter the backward Islamic way of life” (1963a, 123). This echoes the paternalistic jingoism of earlier imperial thinkers—Callwell among them. Unlike Callwell, however, Galula can at times sound self-conscious and apologetic about his prejudgments, even as he insists on them (“I sound no doubt terribly colonialist, but it’s a fact”)

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208 The resemblance to Callwell’s (1899, 4; 1906, 23) call for “overawing” force is striking. However, the “psychologists” whom Galula criticizes seem to have had opposed large-scale, arbitrary violence.
(1963a, 18). Closer attention to the thoughts and intentions of others perhaps led him to more critically examine his own reasoning. 209

5.1 Intelligence

On its face, intelligence gathering would seem to offer an important opportunity for learning by simulation, concerned as it is with anticipating the intentions and planned actions of others. Indeed, Ewald learned quite effectively about intelligence in this way, and to the extent that Callwell learned anything by simulation at all, it concerned intelligence. However, while there is limited evidence that Galula did as well, it seems not to have been especially fruitful for him. Perhaps chiefly, he recognized by simulation that intelligence was key to success: “Intelligence is the principal source of information on guerrillas, and intelligence has to come from the population, but the population will not talk unless it feels safe, and it does not feel safe until the insurgent’s power has been broken” (Galula 1964, 50).

His systematic advice is that “the counterinsurgent will have better results if he concentrates his efforts on those inhabitants who, by definition, ought to be his potential allies, i.e., those who would have least to win and most to lose though the insurgent’s victory. The insurgent’s program usually indicates who they may be” (1963a, 84). This line of inference calls for consideration of others’ incentives and intentions, as a way to infer their probable actions. It thus qualifies broadly as intelligence by simulation. We might think also of the instance (4.1 above) in which Galula directed one of his officers to have his men press one propaganda point daily with villagers, observing and recording their reactions. These recorded observations gave Galula the knowledge of their circumstances and mindset to accurately assess the intentions of villagers, in advance of having empirical proof through their actions (Galula 1963a, 165). This process thus required that intentions be interpreted, something he did effectively.

Simulation may also have played a role in the one instance Galula mentions of gathering intelligence from children. When a schoolboy made a passing remark critical of the French (“if we had guns and ammunition, you soon would be out”), he concluded that the source was not the boy himself, but rather his father (Galula 1963a, 106). The incident seems small, but nonetheless

209 Galula also made errors of simulation. He describes the end of the Battle of Algiers as “a major victory, the concrete proof that we could really break the back of the rebellion” (1963a, 143). This misunderstood not just strategic conditions on the ground, but also the thinking of those on the other side, who would go on to benefit strategically from the privations of violent French pacification in the capital.
requires an understanding of both father and son’s intentions.\textsuperscript{210} Moreover, Galula’s general advice to apply bureaucratic pressure implies an understanding of civilian incentive structures. He refers to this practice in \textit{Counterinsurgency Warfare} (1964, 84), and leveraged it successfully in Algeria (see 5.3, above). Barring these mostly isolated and accidental instances, Galula seems to have collected relatively little intelligence in this way.\textsuperscript{211}

5.2 Use of Force

Galula’s simulation appears to have significantly impacted his assessment of the use of force, but did so chiefly in the negative. His opposition to indiscriminate violence is predicated on his ability to assess the intentions and motivations of the civilian population at large. Indeed, the role of simulation in counterinsurgency is implicit in the account offered of Galula above. His overwhelming emphasis on insurgent thinking, and on the population, as derived from Mao (see section four), gave him no choice but to take opponents’ psychology seriously, even if he viewed psychology alone as insufficient to drive successful counterinsurgency: “in the final analysis, the exercise of political power depends on the tacit or explicit agreement of the population” (Galula 1964, 4).

The psychological effectiveness of insurgency has the form of a feedback loop: “The destruction of the insurgent forces requires that they be localized and immediately encircled. But they are too small to be spotted easily by the counterinsurgent’s direct means of observation” (Galula 1964, 50). Thus, to defeat the insurgency requires the support of the population, but this requires that population be safe, requiring in turn that insurgents be suppressed. The insurgency thus becomes self-sustaining. The counterinsurgent must find a way to cut into the cycle of rebel control. Violence achieves this, dispersing the enemy so that the population can be protected long enough to be brought on side. However, the issue of avoiding excessive violence remains. Galula is at his most ambivalent in his manual (1964, 52–53) when addressing it, understanding as he does the mental states of both insurgents and civilians, and the inherent tension in effectively dealing with both. Thus, he criticized those French officers he termed “warriors” for misunderstanding not only their opponents, but also the broader population. They “had learned

\begin{footnotes}
\item[210] See footnote 187, section 4.1 above. He claimed to have discouraged his men from seeking intelligence from children.
\item[211] While it is possible that he learned more effectively in this area but left no record, his memoir’s detailed and unsparing tone suggest this is unlikely.
\end{footnotes}
nothing… [and] maintained that military action pursued with sufficient means and vigor for a sufficiently long time would defeat the rebels. They needed just one more regiment, or battalion, or company to do the trick” (Galula 1963a, 64–65). Galula’s contempt for them is palpable, not least because he recognized their failure to assess the minds of others.

Beyond this, Galula learned by simulation in small ways. He was (like Ewald) deft at learning by emulating the enemy. One such instance of practical learning, occurring shortly after his arrival in his sous-quartier, came by way of imitation:

In the store of equipment I discovered a bugle. In 1947 in North China I had seen communist troops use a bugle with great effectiveness in combat. I found an amateur bugler among my men and copied unashamedly the Red Chinese. For simple orders such as Stop, Advance, Fire, Cease Fire, Attack, Operation Ended, etc., nothing can beat a bugle, and my fellow officers who smiled at first soon envied my one-man signal corps. (Galula 1963a, 55–56)

The result was perhaps not dramatic, and would not likely be emulated today, but it may well have eased military operations. It derived explicitly from emulation.212

5.3 Political Organization

Galula learned more by simulation about political operations than in any other area. His detailed political strategy required not just a general plan, or an ability to learn by trial and error. It required that counterinsurgents directly understand the intentions and motivations of both their opponents and the population. Initial dealings with an occupied population require finding natural allies. Here, Galula sees a necessary pattern at work:

In any situation, whatever the cause, there will be an active minority for the cause, a neutral majority, and an active minority against the cause…. The technique of power consists in relying on the favorable minority in order to rally the neutral majority and to neutralize or eliminate the hostile minority….This holds true for every political regime, from the harshest dictatorship to the mildest democracy. (Galula 1964, 53 emphasis original)

The immediate task is thus to determine who among the population falls into each category. While paradigmatic biases may yield relevant assumptions, and trial and error may yield answers in the long run, the most effective means to this end is likely the psychological assessment of the individuals at hand. This requires simulation.

212 Galula makes a similar observation concerning the benefit of recruiting the female population of the district as allies. His explanation is telling: “I had learned this from the Chinese Communists” (1963a, 167).
Sometimes the cognitive circumstances of others had to be explained to Galula before he understood. Early in his assignment, he witnessed with amazement the ease with which a government tax collector collected from the local population. One of his officers explained:

“It simply means that the tax collector is all that these people have known of the French bureaucracy for years and years. He personifies to them the French government, administration, and power. They all know from experience that they could get away with murder but not with tax evasion. Besides, taxes are low. So, in order to have peace, and perhaps out of an old reflex, here they are.” (1963a, 107)

For Galula, still new to the Algerian context, the behavior required explanation, despite his clear intention to understand the culture in which he worked.

However, we see this kind of learning at work most clearly in his assessment of potential leaders. His gradual effort to appoint and later elect village mayors (see section 5.3 above) rested large part on his careful assessment of the men involved. His early attempts to get one individual elected indicate both his psychological profiling efforts and their limitations. The chosen man was “in his early fifties, dignified, calm, well-mannered; I had observed on several occasions that he seemed to be respected by the other villagers; he obviously was a notable, a natural leader” (1963a, 90–91). However, Galula was unable in the end to convince the man to run for mayor. Moreover, Galula misjudged him, and acknowledged as much later. The man went on to be denounced as an FLN agent, and eventually fled to France (1963a, 92, 124).

Nonetheless, the electoral process slowly moved forward. Galula recognized what the villagers would do if he proceeded before basic security has been established: “assuming that I could force the villagers to elect anybody, only FLN stooges would have emerged from such elections.” Indeed, this is what happened elsewhere in Kabylia: “the new mayors happily collected their salary from the Préfecture and took their orders from the FLN, to whom they gave a slice of their income” (1963a, 145, 146). Only by carefully assessing how villagers would react could he time the electoral process correctly. In the event, he seems to have had some success: the councils eventually elected were reasonably well received and made gradual improvements to local quality of life (1963a, 146, 159–63). These experiences reappeared in his manual (Galula 1964, 89–90).

6 Conclusion

Galula learned in all three ways, and with great effectiveness in some. He arrived with paradigmatic preconceptions that facilitated the direction he took on the ground. Once in the
field, he engaged in extensive trial-and-error experimental learning. He also engaged, if somewhat less effectively, in simulating the thoughts and motivations of others to assess threats and opportunities. His combination of methods was facilitated by frequent self-assessment, or metacognition. In sum, Galula’s learning was maximally adapted to the complexity he faced in Kabylia, making him unique among the three learners in this study. It produced the extensive learning outcomes we see. (A table below summarizes descriptive findings.)

Indeed, he appears to have benefitted from this heterogeneous approach, which allowed each mode to facilitate the others. Galula’s paradigm committed him to both learning by doing—gathering intelligence and building local political institutions—and learning by simulation: understanding insurgents, civilians, and potential local leaders. Learning by doing served to backfill gaps in his paradigmatic preconceptions, lending detail to his theoretical generalizations. Simulation provided access to local minds, expanding the picture in ways neither paradigmatic commitments nor ad hoc experimentation could. Thus, these modes of learning interacted fruitfully in this case for two reasons. First, Galula’s paradigm encouraged, rather than impeded, the other two modes of learning. His paradigm permitted learning by doing, by leaving questions unasked about how to calibrate the local application of his policy commitments. It also emphasized local agrarian or industrial conditions to explain insurgent motivations, giving rise to simulation. The complexity, nuance, and lack of cognitive closure of his paradigmatic commitments made them comparatively open to permitting learning in other ways.

However second, and more broadly, Galula’s learning process shows recurring evidence of self-criticism. His memoir repeatedly finds him mistaken, surprised, or learning from others when he cannot himself. His paradigm, derived from more than one set of political ideas, was less rigidly dogmatic. Perhaps in keeping with this, his later work suggests that his paradigmatic commitments began to shift in the mid-1960s (see below). This tendency may have had a limiting effect on all three modes of learning, preventing any one from dominating the others. He could occasionally recognize when his paradigmatic commitments were misdirecting him, as when he identified a “shortcut,” non-Maoist form of insurgency at work in Algeria. His foundational beliefs were, thus, more open both to outside knowledge and to revision. His learning by doing was limited to what his paradigm would permit, allowing him to experiment with political organization and intelligence gathering, but little with armed force. His simulation, while important, served a limited and specific role, guiding ad hoc experiments such as elections,
and informing him about the enemy his paradigm told him he had to know well. Occasional reflexive self-assessment helped to maintain the balance between the three. This seems, as much as anything, to have been a personality trait—an in-built inclination to self-criticism.

Galula’s record nonetheless exhibits a bias toward learning by doing. This exposed him to a persistent shortcoming of trial and error experiments: the problem of operating at scale. Many of his experiments, shepherding elections through to outcomes and carefully interpreting locally collected intelligence, likely worked in part because they were localized. Scale matters, in a variety of ways. Collective action problems are more easily solved in small groups (Olson 1971), making it unclear how village-level solutions could be generalized regionally or nationally. Localized management requires local knowledge and local access, and is labor intensive (Scott 1998). Galula seems to have experienced this limitation when asked to help pacify the district capital of Tizi Ouzou, a significantly larger town of about 20,000. Things went badly. Galula worked with few resources, and had only marginal successes in the month he was there—many of which were later reversed (1963a, 148–56). Things were worse still when Galula was made deputy commander of a larger and quite different sector, elsewhere in Kabylia (see 4.3, above). Without full command, with the insurgency already much further progressed, and operating at greater scale, he found he could achieve little. This suggests limits on learning by doing as such. Ad hoc experiments tend to be localized, lacking verifiable rigor. They thus offer little certainty about replication or scaling up. The informality of learning by doing necessarily cuts against systematicity. We might think of this as an inversion of the problem of learning by paradigm. Where one limits cognitive change by imposing restrictive generalized assumptions, the other limits it by curtailing generalization as such. Put differently, learning by doing generates local insights into local detail and complexity, but offers few tools for generalization on its own. It provides insights necessary to scaling up, but not scale itself (I return this matter in the concluding chapter). As a more practical matter, it requires a relatively free hand: one can only conduct ad hoc experiments if one has relatively complete control over the levers of policy.

Two examples from Galula’s Algerian experience usefully illustrate a multiplying effect across the three methods. The first concerns local elections and the second the use of force. In both instances, they involved an active, self-conscious effort at learning in multiple ways.  

213 A third example might concern human intelligence collection. For reasons of space, I limit myself to these two.
### Table 4: Galula’s Learning Outcomes

<table>
<thead>
<tr>
<th>Paradigm</th>
<th>Doing</th>
<th>Simulation</th>
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| **Intelligence** | - Moderate—Galula’s paradigm told him that intelligence was essential, and whom to get it from (civilians with anti-insurgent interests).  
  - However, it told him little about how precisely to go about gathering it. | - Extensive—because he knew he needed to gather intelligence, but knew little about how, he learned how by trying a range of methods.  
  - Experimental methods ranged from bribery, to drink, to torture. Many worked, to varying degrees. | - Limited—Galula seems to have understood that understanding the minds of others is key to intelligence gathering; however, he did relatively little of this in practice.  
  - Exceptions include instances of directly emulating Maoist guerrillas. |
| **Use of Force** | - Moderate—Galula learned much about use of force from his preconceptions, but much of this concerned when not to fight.  
  - Also concerned whom not to antagonize with violence (the civilian population). | - Moderate—Galula’s commitment to using force only in limited ways required that he learn to do so by trial and error.  
  - Thus, targeted raids, attacks on insurgent bases, and operations against ambushes all had to be learned by ad hoc experiment. | - Limited—Galula recognized the need to assess intentions before organizing politically. In practice, however, he had somewhat limited success at doing so.  
  - Here, colonial biases may have contributed to misperceptions. |
| **Political Organization** | - Extensive—Galula saw political organization on the ground as the main route to victory.  
  - Political order must be preceded by the establishment of basic security.  
  - It must also appear legitimate to the population at large. | - Extensive—the sheer complexity and difficulty of imposing political order during an ongoing conflict meant that much of it had to be learned by doing.  
  - Galula learned how to impose initial order, to keep records on the population, to conduct elections, and much else besides. | - Extensive—imposing political order in practice required assessing the minds of others in order to understand their political beliefs and likely actions.  
  - These ranged from rank and file civilians to potential leaders to insurgent opponents. |
We can turn first to Galula’s experience organizing elections in his district, a task for which he had recourse to all three modes of learning. He opted to stage elections largely on the basis of his paradigmatic commitments. He arrived already knowing he would need the support of the local population. The need for popular local government followed. He learned by ad hoc trial and error how to do this in practice, attempting and failing to stage elections in one village, then succeeding by degrees in others. He screened candidates by simulation, inferring their intentions and motivations by stepping into their shoes. This went poorly at first (1963a, 92, 124), and then later better (Galula 1963a, 135, 157).

These effects were additive, in the sense of combining piecemeal the insights of each method. However, they resulted in additional insights, resulting not from any one method but from interactions across the three. This occurred when the three models conditioned or shaped one another. Galula’s ad hoc experiments and simulation were not wholly localized and undirected—they took their political goals from his paradigm. He would not have known to experimentally pursue elections, and thus had the need to vet candidates by simulation, had he not thought legitimate government necessary. Inversely, he gradually revised his paradigm to accommodate these new lessons. His electoral experiments were sequential: when he failed in one village, he tried again in another, adjusting accordingly. He vetted candidates differently (a matter of simulation), having previously chosen poorly or failed to recruit those he chose. He found elections to be a real but nonetheless gradual and tentatively achieved solution to the problem of political order. Accordingly, his postwar manual emphasizes the need to carefully “test” elected officials for loyalty and especially effectiveness as leaders and administrators (Galula 1964, 90–92). This step appears nowhere in his initial thinking on the subject, but now became integral to his overarching, paradigmatic view of counterinsurgency.214 His understanding of who counted as a viable candidate had changed as well. He initially sought out those with existing leadership skills, selecting a “natural leader” (Galula 1963a, 91) and intending to mold him to his purposes. He now sought out those who wanted to help him, understanding they would learn on the job if they had the conviction to do so (Galula 1963a, 135). Moreover, he learned to permit elections with little or no interference on his part, the

214 Admittedly, our detailed knowledge of Galula’s thought prior to Algeria is limited. Still, we know from his reports from Algeria that his earlier approach to politics was somewhat different, emphasizing propaganda, and offering little detail on the conduct of elections (Galula 1963b). This reading is consistent with what we know of Galula’s intellectual development before Algeria (Cohen 2012).
results often being positive. No one method could have produced these insights, nor could the simple piling up of lessons from each. The process was iterative. His core beliefs directed experiments and simulations that in turn incrementally adjusted his core beliefs. Elections across multiple villages permitted this continual learning process.

A second, somewhat more limited example concerns Galula’s experience of how to use force. Galula’s commitment to limited and selective use of force derived from his paradigmatic commitment to separating the population from insurgents.\(^{215}\) However, doing so with any precision required extensive trial and error in the field. It also required that he simulate the intentions of those he interacted with, determining whether they belonged to the large, uncommitted middle portion of the population, who should be protected, or to the radicalized minority, who were to be marginalized and punished. These individual experiences contribute additively to his knowledge of counterinsurgency. However, they also interacted.

Galula’s paradigm told him how to conduct violence largely in the negative: it indicated whom not to attack—the noncombatant population—with a concomitant positive instruction to protect the same group from the violence of the enemy. This dual instruction gave rise to a process through which pacification could occur. However, his initial sketch of the process (Galula 1963b) was much less detailed, and involved fewer stages, than the process described in his manual (Galula 1964). Doing and simulation filled in the specifics. However, they could only do so under paradigmatic guidance—they would otherwise have been wholly undirected. Village by village pacification required the elimination of insurgent cells in each. A wealth of tactical detail emerged (see section 4.2, above), as well as a more nuanced stepwise process. The broad arc of that process was linked to Mao, but new individual stages had been added to reflect a more nuanced process. Here again, the learning process was at least somewhat iterated. The introduction of new stages of pacification necessitated new experiments, and new interpersonal interactions. When in the summer of 1957 Galula pacified two villages newly added to his subdistrict (Galula 1963a, 188–92), he did do with comparative efficiency, despite what was now a somewhat more elaborate pacification process. This efficiency was facilitated not just by learning through interactions between methods, but also by interactions between policy decisions.

\(^{215}\) It did not however derive from any principled commitment to electoral democracy. Galula (1963a, 21, 29) repeatedly complained about the vagaries of electoral and coalition politics in both France and Algeria proper, which impacted wartime policy.
problems. Improved political organization and human intelligence gathering made use of force better targeted, and thus in the end more limited.\textsuperscript{216}

These multiplicative effects could not have occurred without metacognition. Galula thought at length about how to conduct elections. He sought out new evidence, and rethought his paradigmatic commitments. He did so not just on the basis of iterated experiments, but also by simulating the intentions of the enemy and of individuals in the population at large, especially potential local leaders. This careful balancing and mixing of methods, over a recurring process was not the result of happenstance. It came only with effort.\textsuperscript{217}

The expected multiplication effect was nonetheless imperfect in Galula’s case. Given that complexity occurs at scale, we should expect successful complex learning to scale up, adjusting to differences in scale effectively. Why did Galula’s learned counterinsurgent doctrine partially fail to do so? Two complimentary explanations suggest themselves. First, Galula had a documentable bias toward the local. Second, his field experience was predominantly localized. He thus had neither the predilection for nor the opportunity to learn in practice about how to scale his insights. He could infer scale only, by way of a single method: by paradigm. He operated at scale only briefly, and under significant structural and bureaucratic constraints. Without the opportunity to iterate the experience, and to operate with a free hand strategically and tactically, learning could not be expected to occur. He had the opportunity to fail, but not to learn from that failure. We can infer counterfactually that, had he had a freer hand and more time in commanding more men over a larger territory, he might have learned more by doing here. As it stands, his scaled insights fall back chiefly on his anti-Maoist paradigm. They were systematic, but relatively inflexible. When his thinking later began to change (Galula 1965; 1967), these insights destabilized. From this point, it becomes more difficult to discern a clear systematic view in his writing.

\textsuperscript{216} Galula had also by this time learned the performative value of violence, a favorite tool of Callwell’s. However, he used it sparingly, locating it in the larger scheme of his toolkit. Here, he issued a limited threat to respond to insurgents with a public display of violence. When prompted by events, his men deployed it (Galula 1963a, 190).

\textsuperscript{217} This experiential learning, by both doing and simulation, not only complicated Galula’s paradigmatic beliefs, it produced variations. He revised his paradigmatic understanding of insurgent violence, identifying a “shortcut” insurgent method in Algeria that focused less on political reform, and was more prone to the arbitrary violence of terrorism (Galula 1964, 39–40). In time (as I show below), he came to question his focus on Maoism.
Galula’s influence was not a matter of consensus in France at the time of his writing. Nonetheless, as Cohen shows at length (2012), his American contemporaries respected greatly both his conclusions and the detailed and systematic ways in which he had learned them. His participation in an early RAND symposium on counterinsurgency (Hosmer and Crane 1962) helped shape core modern understandings of this way of war. As I indicate above (see section 2), his influence on contemporary warfare is without easy parallels. In this respect, his findings were matters of consensus among the broad community of population-centric counterinsurgency theorists. His methods were as well. While his paradigmatic commitments my now seem dated, they were central to Cold War era counterinsurgent thinking. His emphasis on learning by doing now seems central to how counterinsurgency is learned. It is difficult to imagine anyone sitting down to write a manual for counterinsurgents without at least some volume of field experience. For example, most of the authors of the current American field manual, who cite Galula as an influence (U.S. Army and Marine Corps 2007), had such experience before sitting down to write (Crane 2010; Kaplan 2013).

There is also evidence that Galula’s thinking about counterinsurgency continued to change after his principal books were written. A late essay (1965) appeared in a volume following a September 1964 conference at Oxford. A still later essay (1967) was written for a May-June 1966 conference in Munich, and was published following his death from cancer, the year after. The first suggests Galula’s paradigmatic commitments were destabilizing. He questions why, as of the mid-1960s, Chinese-inspired communist insurgency was not more widespread in Asia: “Where then is the great prairie fire that was supposed to inflame all of Asia?” (1965, 176). Galula revisits the Maoist insurgency program, this time critically: “is it ‘failure-proof”? I personally doubt it”. This is because “The Chinese… have failed to realise how lucky they were in the course of their revolutionary war” (1965, 180). Galula’s thinking had changed. Where he had previously seen Maoist guerrilla warfare as the ideal form of insurgency, he now saw it as overly reliant on good fortune. Thus, “sooner or later, the Chinese will have to forget their orthodox pattern and promote another which… has proven to be far more speedy and

218 Indeed, his manual was published in France only after it’s recent revival in America (Galula 2008).
219 The first of these essays has received relatively little attention since the revival of interest in Galula’s work (Marlowe 2010, 50–51; Mathias 2011, 131). The second appears to have received no attention at all—it has perhaps been heretofore forgotten. Cohen (2012, 229–31) notes that by this time Galula had begun to habitually turn down requests to write or speak, in preparation for a private sector career that would not involve security matters.
The method in question was the “shortcut” approach he had witnessed in Algeria, which placed little emphasis on popular political organization and the cultivation of a cause, replacing these with relatively arbitrary violence.

A shift in the form of insurgency implies a need to adapt accordingly. The second essay—Galula’s last published work on the subject—suggests he had become pessimistic about prospects for counterinsurgency (Galula 1967). The essay analyzes the US military situation in Vietnam, as of 1966. It makes for grim reading. The Vietcong had by this time progressed to the fourth stage of Maoist insurgency, going beyond guerrilla warfare to large, relatively conventional and territory-controlling military operations. The South Vietnamese government was disorderly and ineffectual. The US lacked a sound military doctrine (Galula offered his own), and moreover had nothing like the 2 million troops he estimated would be necessary to pacify the country—about five times US presence at the time of his writing. He did not predict American failure, but he clearly thought victory unlikely, since the war could not be won the way America was likely to fight it. That Galula could draw these conclusions suggests that he had begun to question the basic practicality of defeating insurgents. Taken together, the two essays suggest significant shifts in his point of view. Because of his untimely death, we cannot know what programmatic conclusions he might eventually have drawn. Nonetheless, they suggest that his paradigmatic views (like Ewald’s, almost two centuries before) were by then in transition.

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220 At the end of 1966, the year before Galula’s death, US deployment to Vietnam was 385,300. It peaked at 543,600 in April, 1969 (Lawrence 2010, 102).
Chapter 6
Conclusion

Who learned most about counterinsurgency, and how? How did the complexity of insurgency itself impact their ability to do so? This chapter draws conclusions based on the cases above. I find that Galula learned most, and Callwell least, with Ewald falling between the two. This is consistent with the stipulation that learning by doing equips learners better than learning by paradigm or simulation to manage complexity. Moreover, those learners who adapted more effectively to complexity learned in multiple ways. Combining methods yields both the advantages of multiple approaches and the additional benefits of interactions between them. However, managing these interactions appears to require an additional learning skillset: metacognition. Here again, Galula was most adept and Callwell least. Metacognition thus appears to be an important precondition for learning in multiple ways, which is in turn necessary for learning maximally about complexity.

In this chapter, I proceed as follows. First, I briefly review the theoretical analysis in the first two chapters. Second, I evaluate the study’s core empirical results. I compare findings across cases, indicating who learned most and least and by way of what methods. I then explore the role of complexity, showing which methods were most effective, and which least, in dealing with the complex nature of insurgency. Third, I consider the relationship between learning and metacognition, reflecting on how the models interact to better manage complexity. Fourth, I consider consequences for the broader learning literature in IR. Fifth, I explore limitations of the account, and consider avenues for future research.

1 Learning and Complexity

This study began by developing the theoretical problem of how policymakers learn about complexity. Complex policy problems present distinct challenges to policymakers. Complex systems arise from the interactions of large numbers of components or subunits. They exhibit traits greater than, or in addition to, the sum of their parts. Their behavior is thus nonlinear or unpredictable: observation of their constituent units is insufficient to explain their overall
trajectory, as aggregate behaviors take on qualities not present at lower levels of analysis. They may be prone to threshold effects. They are thus said to generate emergent processes: changes that cannot be readily anticipated by an observer in advance. They may also be adaptive, changing in response to their broader environments.

When complex systems present themselves as policy problems, they give rise to distinct challenges. Policymakers must learn to contend with the unexpected, and to adapt more frequently than they otherwise might. Put differently, complexity demands continuous learning, as actors adapt to frequent and unexpected changes in the tasks they face. I have argued learning that is adaptive to complexity requires multiple learning means or methods. A method of learning is a set of tools or cognitive equipment used to interpret or make sense of lived experience. Successful learning can be identified in two ways: it will be useful and will be recognized as learning by one’s peers. First, learning methods bring sufficient intellectual order to it to permit decision-making and action. Second, since such action generally occurs in a social milieu, successful learning must be sufficient to convince not just the learner, but also his or her peers.

I identify three such methods of learning, which differ in terms of how they expect to find order in the lived world, how they interpret data, and how they go about prescribing courses of action. The methods are models or ideal-types: analytical simplifications that permit evaluation of learning as it occurs in practice. The first model emphasizes paradigms or conceptual schemes: pre-existing policy and political beliefs that permit organized knowledge. Learners apply these assumptions to experience, to make sense of complex and potentially contradictory stimuli. Policy learning by paradigm will tend to yield general guidelines for action, rather than more local or specific knowledge. Learning by paradigm is only minimally adaptable to complexity, precisely because it emphasizes linearity, fixity, and stasis over local variation and unexpected change. The second model is learning by doing, which occurs through adaptive, freeform, ad hoc experiments. This makes learning a trial-and-error process. Learners treat existing ideas and new information as tools or building blocks to be deployed in ad hoc experiments. Learning by doing will tend to yield local, contextual knowledge, that is more rigorously specific, but only slowly convertible into systematic prescriptions. This model is more adaptive to complexity than the other two, as its local specificity permits flexibility, expecting learners to adjust to unexpected changes in their environment. The third model, learning by
simulation, emphasizes individual learning about the thoughts and intentions of others. It is primarily interpersonal and empathetic, as learners emulate others’ thinking by stepping into their shoes. Such learning is most closely associated with interpersonal or interactional aspects of strategic and tactical reasoning. This approach is intermediately adaptive to complexity. It deals well with one especially complex and unpredictable kind of entity—the minds of others—but tells the learner little at all about other phenomena. The three thus vary in their capacity for managing complexity, but none does it with any great facility alone, since they deal with specific levels of aggregation or aspects of social life, largely to the exclusion of others.

My central claim is that policymakers will learn more if they learn using methods better adapted to complexity. They will learn most of all where they combine them. The models deal with different components of experience, offering access to systematic prescriptions, local knowledge, and other minds. Policymakers benefiting from all three will be best able to adjust systematically to changing circumstances. Moreover, we should expect interaction effects between them. A learner’s paradigmatic commitments may provide context for learning by doing, or for evaluation of others by simulation. Learning by doing may facilitate adjusting or rejecting one’s paradigm where it proves maladaptive to the practical conditions of policymaking. Learning by simulation may fill in individual-level detail absent from one’s paradigm, and may facilitate learning by doing by rendering the actions of other individuals comprehensible.

Integration across the three models occurs self-consciously. In order for the learner to benefit not just from the discrete insights of each model, but also from the effects of combining them, the learner must make a self-conscious effort to combine them, reflecting upon what each set of insights says about the other. The process is thus metacognitive: it involves thinking about thinking, or reasoning about what one learns through multiple extant reasoning processes. In practice, this combined process is iterated, involving a repeating dialogue between methods. I turn to it at greater length below (section 3).

2 Learning in Counterinsurgency

The cases in the preceding chapters deploy these three models to explain learning by policymakers who deal with an especially complex policy problem: insurgency. A case here is a counterinsurgency manual: a text that documents what the author learned. I have applied these three models across three such cases, assessing the processes that produced these outcomes with
reference to authors’ wartime experiences, as documented in autobiographical writings, and with reference to the broader histories of the wars in which they served. The cases concentrate on each author’s ability to solve three policy problems in counterinsurgency: intelligence collection, use of force, and political organization.

I claim learning by doing is the most attuned to complexity of three models, and learning by paradigm the least, with learning by simulation falling in between. We should thus expect those who learn by doing to be best adapted, and those who learn primarily or exclusively by paradigm to be least adapted. Nonetheless, learning by any one model alone will produce sharply limited results in managing complexity. We should expect those who combine methods to be best adapted of all. This is exactly what we see in these cases. Galula, who learned most, did so by a combination of means, primarily by doing. Importantly, the combination of models he employed interacted metacognitively. Callwell, who learned least, did so almost exclusively by paradigm, which impeded or crowded out the other methods of learning. Lacking a combination of models, he experienced scant metacognition. Ewald, who learned with intermediate success, did so by a partial combination of means, emphasizing simulation—an intermediately effective method. Ewald made metacognitive efforts, but absent a relevant paradigm, they often failed.

In short, how well each individual learned about or adapted to the complexity of counterinsurgency was shaped by how he went about doing so. Across these three practitioners, Galula learned the most, developing a nuanced and systematic account of how to manage insurgent violence. Callwell learned least, deploying a relatively narrow, rigid, and limited set of policy tools, and revising them little in the face of negative feedback. Ewald’s experience fell somewhere in between—he learned effectively in some respects, but less so in others. He recognized the failure of his systematic claims, but found little with which to replace them. In each instance, they could learn effectively about the complexity of insurgency not just to the extent that they employed more and better methods, but also to the extent that they aimed self-consciously to combine them.

Galula learned through all three methods, and was thus able to attack policy problems in multiple ways. The resulting manual is representative of his paradigmatic preconceptions, but also his openness to revising them. It makes extensive use of insights gleaned by doing and (to a lesser extent) by simulation. The manual thus reflected his distinctive experiences in Algeria. Indeed, it seems likely that no other setting or set of contextual and interpersonal experiences
could have produced the specific learning outcomes at which he arrived. The same paradigm absent Algerian field experience would not have allowed him to identify the FLN’s distinctive “bourgeois nationalist” approach (Galula 1964, 39–40), or the detailed political insights he gleaned from simulation. The same field experience without his paradigmatic preconceptions would have produced a manual lacking a counter-Maoist conceptual backbone. In sum, the manual reflects a plurality of learning methods. Those methods impacted his learning both in amount—Galula learned the most, across the three cases—and also content. The manual’s content was produced by a plurality of methods, and by interactions between them.

Callwell could not have been more different, arriving at his position because he was, in some sense, already there. He motivated and ordered his encyclopedic manual with a singular and thoroughgoing emphasis on violence. His time in South Africa necessarily forced him to revisit his beliefs—he was, after all, engaged in acting them out. His paradigm gave him tools with which to order and make sense of this experience, and his post-Boer War revisions to the manual reflect just such ordered thinking. However, since he learned in few other ways, he lacked tools with which to revise these preconceptions. Instead, he responded chiefly by radicalizing views he already held. He learned little besides. His manual reflected the most limited learning outcomes in this study. Despite the central place it occupies in his personal history, the Boer War changed Callwell remarkably little. This resulted largely from the intellectual tools with which he approached the experience.

Ewald represents an intermediate case. His paradigm was in crisis almost from the moment he landed in America. In his eight years of service there, he found nothing systematic with which to replace it. Nonetheless, it served him as a point of contrast for learning: he was continually amazed to find his expectations of his revolutionary interlocutors proven wrong. He gradually adjusted these presumptions (if not their paradigmatic basis), and consequently learned a great deal by simulation. He wrote a pair of manuals shot through with psychological observations gleaned from simulation. However, he proved unable to develop a systematic or coherent alternative set of paradigmatic commitments. This likely occurred primarily because the methods to which he had access offered few tools with which to generalize or scale up. Additionally, two potentially complimentary reasons specific to Ewald’s case suggest themselves. First, the conceptual gap between the politics Ewald knew and those he encountered in America was especially wide. Generalizing based on the new ideas he encountered there may
simply have been too difficult a task. Second, the ideas he was unable to internalize were expressly political, and his field experience included negligible political experience. As such, he had little opportunity to internalize these new ideas. As they stand, his manuals offer detailed instructions, but lack anything resembling a central claim or argument. He learned a great deal in America, but might have learned a great deal more had he understood his situation and the politically novel nature of the American Revolutionary project more systematically. The manuals result from the interaction between his circumstances and the informative but incomplete set of cognitive tools with which he interpreted them.

These differences in learning outcomes thus reflect differing experiences of learning methods. Galula was proficient in all three, and emphasized learning by doing. Callwell learned almost exclusively in a single way, by paradigm. Ewald had a mixed experience. He learned from his paradigm only in the negative, and learned by doing only that his paradigm was poorly suited to the context in which he served. These reflect greater cognitive change than Callwell experienced, but less than Galula did. He learned proficiently only by simulation.

These differences reflect not just varied experiences of counterinsurgency, and capacities to learn about it, but also differing experiences of complexity, and thus differences in individual ability to manage it. All three conflicts exhibited traits of complexity, confronting policymakers with unpredictable, emergent circumstances. The particulars of each conflict varied locally—emergent conditions necessarily will—but the overall phenomenon of insurgency was relatively constant. Consequently, all three men wrote, or intended to write, manuals not just for the wars they fought, but for counterinsurgency as such. Learning outcomes varied not with wartime conditions, but instead with the capacities of each man to grapple with the complexity that all three faced. They thus reflect each model’s differing facility for managing complexity.

These experiences are consistent with expectations about how the three models related to complexity. As stipulated above, learning by paradigm offered little adaptability to complexity in these cases. Indeed, it often functioned as a barrier to dealing with complexity. For Callwell, it precluded attention to local variation and change, and curtailed other methods. Ewald could learn seriously only having largely discarded his paradigmatic preconceptions. Only Galula seems to have found his paradigmatic assumptions both useful and consistent with learning in other ways. Learning by paradigm imposes stark choices, and clearly benefits from alternative means of cognitive development. It is learning only in the narrowest sense. In contrast, learning by doing
proved most adaptive to complexity. Nonetheless, this model has limitations of its own, chiefly to do with scale. Ad hoc experimental learning will yield local knowledge, but little generalization. Galula’s manual systematized what he learned by doing only by grafting it onto an existing paradigm, which then had to be revised to accommodate new ideas. Moreover, it reflected learning that linked the methods. Still, while his richly detailed local knowledge contributed to a general account in theory, it largely failed to scale up in practice. Learning by simulation handled complexity intermediately. Ewald is illustrative. He gained complex localized knowledge of other minds in this way, but could generalize little from it above the tactical level.

The relationship was not one of causation in the conventional sense. The models, as instantiated in these cases, did not cause these men to learn what they did. Instead, the models describe the processes through which they formulated and internalized claims about the world around them. The models tell the story not of why they learned what they did, but how. Other factors, such as the local sociocultural contexts of these wars or the sociopolitical backgrounds of the learners played important roles. However, these factors appear to have impacted what these men learned chiefly through the mechanisms of the three learning methods. Callwell understood South Africa through the lens of his paradigm. Galula came understand his Algerian surroundings in multiple ways, but disproportionately through trial-and-error interactions with them, conducting small-scale, ad hoc experiments as he went. Ewald understood the motivations of the Americans—ideas inconsistent with his paradigm—chiefly by simulating them. Had their learning methods been different, but their circumstances the same, different learning outcomes would quite likely have resulted. They would have been differently adapted to the complexity they faced. Indeed, Galula was able to learn the most (by a wide margin) because he learned in multiple ways, and did so self-critically—that is, by way of metacognition.

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221 The reasons for his failure to scale up in practice are best understood as multiple, and largely idiosyncratic to his circumstances. He operated under stricter institutional constraints when conducting larger operations, and thus could less fully implement his approach. When deployed to a larger district at length, he found the insurgency already too far advanced to be reversed (see chapter 5, section 3.3, above). Moreover, as he notes in his discussion of Vietnam (Galula 1967), his method requires large numbers of troops—more than he had access to. More generally then, it seems likely we should distinguish between the ability to scale up in theory, and the ability to do so in practice, where the exogenous factors like the bureaucratic impediments Galula frequently faced may inhibit success.
3 Learning and Metacognition

We can also observe a compounding effect from interactions among these models. Galula learned most about the complexity of insurgency not just because he learned in the most complex single way, or because he acquired knowledge from each of the three models individually. Instead, the models interacted in important ways. What he learned locally by doing took on a programmatic shape only in the context of his paradigmatic commitments. What he learned paradigmatically gained specificity only through localized context of ad hoc experimentation. When he did simulate, ad hoc experimentation provided a source of confirmation, and his paradigm provided context. We see these interactions in the examples of iterated village elections and iterated violence in village pacification. Moreover, simulation and ad hoc experimentation both fed gradual revision of his paradigm. By the end of his service, his beliefs had become considerably more nuanced. His stepwise scheme had acquired new stages, and he recognized variations on it. Eventually, in his last postwar writings, he came to question the counter-Maoist core of his paradigm, suggesting that Mao may not have been the “master” Galula had taken him for (Galula 1965). Only iterated interactions across these methods made these revisions possible.

In contrast, Callwell learned least not only because he learned in one way alone, but also because what he learned interacted little with the fruits of other methods. His paradigmatic commitments persistently screened out insights gleaned in other ways. He could experience few if any interactions because there were few insights from other methods with which his paradigm could interact. Here again, Ewald is the intermediate case. What he learned by doing and by simulation interacted with his paradigm, but chiefly in the negative, undermining it. The only positive interactions he experienced were between doing and simulation, as we see in the example of iterated learning about ambushes. The result was real cognitive change that referred in an appreciable way to complex lived experience, but that yielded relatively few novel insights of any generalizability.

This suggests a need for a fourth cognitive skill, managing relations among the three: metacognition. Indeed, some form of metacognitive activity would appear to be a precondition for successful learning about complexity. It requires self-consciously thinking about thinking or learning—that is, actively and self-reflectively setting out to innovate, and to manage the relationship between methods. These men learned most effectively to the degree that they
intentionally and self-consciously reasoned about how to do so. Galula’s short memoir refers frequently to his efforts to innovate strategies and tactics, and to the varied ways in which he did so. Indeed, he viewed policy development as a core goal in Algeria. We see this especially where his learning processes were iterated. His efforts at staging village elections involved a self-conscious attempt to improve his ability to draft candidates, generate interest in the electoral process, and invest eventual winners with political legitimacy. All three learning methods were implicated in doing so. The same may be said of his efforts to pacify villages through targeted violence.

In Callwell’s memoirs, we see little such talk. When he does become self-reflective, he does so inaccurately, presenting himself as a learner by doing, despite his deep-seated, if largely unconscious, paradigmatic commitments. Here again, Ewald fell somewhere in between. His diaries make frequent references to his efforts at strategic and tactical improvement. However, he had great difficulty actually making such improvements. Where learning succeeded in these cases, it resulted not by accident, but from conscious effort. Learning in this cross-methodological way is, presumably, no easy task. We can infer this in part from the difficulty these men had in so doing. Metacognition need not reflect a conscious and systematic grasp of the tools precisely as laid out in this study. However, it will necessitate a conscious effort to approach problems in multiple ways. We also see it in self-criticism: the effort to rethink one’s own thinking.

Galula was the most successful learner in this study, and most successfully engaged in metacognition. He recognized his own colonial and anti-communist presuppositions as the assumptions they were, rather than as unquestionable intellectual bedrock. He drew new systematic claims from experience; Ewald and Callwell did not. Galula did so by thinking at length about his own cognitive activities. He self-consciously aimed to develop novel strategy and tactics for counterinsurgency. He went out of his way to read well beyond his training, in search of new ideas. He sought and acquired field postings first to acquire new ideas, and then later to test them. When those ideas did not work, he developed new ones, reflecting on his local experience. On the ground, he self-criticized, rethought, and revised accordingly. At each stage, he intended not just to acquire knowledge, but also to do so in as many ways as possible, and to grapple with the complex interactions between these methods of learning and their intellectual
outcomes. Where he was most successful at this, the process iterated, repeating cross-pollination across methods to repeatedly generate new insights.

Ewald’s metacognitive experience was, like his learning experience in general, mixed. His diary frequently documents the failings of his own actions, and records him reflecting on the actions of the enemy. However, he did not record habitually questioning his own assumptions. He was frequently surprised at his enemy’s conviction, and in time came to reflect at length on their courage and tactical skill. Instead, he made do with a combination of occasional ad hoc experiments and a wealth of imitation. Nonetheless, he was persistently unable to draw novel and systematic strategic conclusions from these experiences, and there is little evidence that he tried. He criticized himself, but often could not answer the questions that resulted. Throughout, his metacognitive self-reflection was incomplete.222

Callwell’s experience was most limited of all. His memoirs show little effort at intellectual self-development, since he believed he had the right answers already. Indeed, it is unclear from his extensive autobiographical volumes how precisely he thought he had come by these beliefs. When he does offer reflections on his learning processes he strikingly misunderstands himself. He understood himself as a learner by doing, and yet learned almost nothing in this way. He derided “paper strategists” (Callwell 1923b, 1:277) of all sorts, not recognizing that in effect he was one. We see this in an odd moment in South Africa, where, in dealing with an unusual piece of artillery, he revises an ineffectual approach only “very slowly, for it is difficult to divest oneself of theories of long standing” (Callwell 1923a, 2:101). So deep-seated was his predilection to preconceived approaches, that he had difficulty revising his views even at this technical, sub-tactical level. He rarely reflected self-critically on his learning habits beyond passing instances such as this.

There is an important broader lesson here. Among these three, those who learned most and most effectively about the complexity of counterinsurgency tended to be self-reflective and self-critical. Learning pluralistically was, in these three cases, a self-conscious activity. Learning requires policymakers not just to deploy assumptions, to try new things in the field, or to infer the motives of others. They must also aim or try to think seriously and critically about how and why they do so, and to internalize lessons learned in more than one way. Put differently, an ideal

222 Strikingly, he claimed to have retained the diary itself after the war, and after his manuals were written, for learning-related purposes of a different sort: the education of his sons (Ewald 1979, 3).
or most effective learner will have relatively few preferences as to how they learn, preferring instead to learn in multiple ways, taking on the additional burden of deriving lessons that no one method alone could yield. The matter of metacognition is, thus, linked directly to adaptability to complexity. The three learners’ differing capacities for metacognition are linked to differing approaches to managing complex matters. Increased metacognitive reasoning amounts to an increased ability to grapple with complexity, since the latter requires frequent adaptation, which in turn requires that one actively think or reason about one’s own learning processes as they unfold.

Each man grappled differently with the relationship between complexity and metacognition. Galula embraced it, in relative terms, focusing on the local, and systematizing only insofar as his opponents offered him the opportunity to do so. Put differently, he managed complexity by actively adapting himself to it. Callwell addressed complexity by trying to eliminate it, collapsing it theoretically into a narrow paradigm, and crushing it in practice under the weight of overwhelming violence. He aimed to adjust the complexity of the world to his own cognitive constraints, simplifying the theater of war by application of violence, to match his linear inclinations. Ewald prevaricated between these two extremes, developing no consistent approach to complexity as such. He relied on a capacity for empathy to cope with his chaotic surroundings. Thus, here again we find Galula’s capacity for wrangling the complex consists largely in his ability or willingness to engage in metacognition. Inversely, Callwell’s incapacity for the former largely precluded the latter. As we might expect Ewald’s experience fell somewhere in between. In all cases, learning about complexity was possible only by way of an active, metacognitive effort to juggle multiple modes of learning.

4 Lessons on Learning

These findings have consequences for our thinking about the broader learning literature, in addition to the core findings presented above. A first, general concern is the status of learning itself as a theoretical concept. As the theoretical analysis at the beginning of this study suggests, part of the “conceptual minefield” (Levy 1994) it presents remains unswept. The present study has aimed to bring increased focus to the literature by emphasizing individual learners (as did Levy), and complex rather than simple learning as the primary objects of study. Group rather than individual learning represents a distinct phenomenon, since it is as much sociological as psychological. Complex learning trumps simple as an object of study because simple learning
presents no particular puzzle. It can readily be understood as a response to stimulus—adaptation either to an actor’s immediate circumstances or to broader structural constraints where they are sufficiently unambiguous. In contrast, learning about complexity is both ambiguous and difficult. New theoretical tools are needed to make sense of it—tools of the kind I have tried to provide.

A key feature of this study has been an emphasis on the need for standards in understanding learning, and the need for those standards to be plural. As Stein (1994, 170) argued in response to Levy (1994, 270, 292–93) two decades ago, standards are necessary to distinguish learning from cognitive change as such. In order to end-run the problem of standards, I have stipulated the need for multiple standards of learning, procedurally defined and pragmatically grounded in consensus. That consensus is illustrated above by the wide acceptance these manuals found, and by extension found by the methods that produced them, among the authors’ peers and intellectual descendants. In so doing, I have aimed to resolve (or, more accurately, dissolve) an important theoretical problem for the study of learning in IR. By locating standards in processes, observable by one’s peers, learning can be said to be a distinct form of cognitive change, producing beliefs that, as Breslauer and Tetlock (1991b, 6) specify, are “valid, or true, or justified, or realistic.” Important, judgments based on such standards “inevitably are and will be essentially contested” (Stein 1994, 171), in the sense that they vary in their specific findings. However, we can hold these standards, and the resulting judgments, to the additional standard of their ability to deal with complexity. Since combinations of such standards, pragmatically grounded, are the most adaptive to complexity, tolerating these contestations between methods and the judgments they draw seems not so much a barrier to complex learning as a precondition for it.

A last, distinct consequence concerns not learning so much as the still-emerging literature on complexity. Many studies of complexity to date have been chiefly theoretical (Axelrod 1997; Jervis 1998; Bousquet and Curtis 2011), intended to take in especially wide potential areas of study. This study joins other, more recent studies in suggesting by example that a narrower and more specific emphasis may be called for. Rather than focusing on complexity in world politics as such, complexity theorists in IR may do well to look for specific instances in which complexity provides novel or additional theoretical leverage over a distinctive event, process, or phenomena. Environmental politics (Homer-Dixon 1991; Hoffmann 2005) and irregular political violence (Bousquet 2012) are useful examples. By refocusing on specific theoretical puzzles,
political structures, or policy problems, the concept of complexity can acquire the precision necessary for analytical purchase.\textsuperscript{223}

5 Limitations and Further Research

The previous section identified theoretical consequences, and with them areas for future research. This last section identifies a few more, in the process of indicating limitations of the account. They concern, in sequence, the task of generalizing the theory, the relationship between learning and policymaking, the need for continual adaptation, and the motivations that give rise to counterinsurgency as such.

A first and most obvious limitation is methodological. The results of a study focused on three learners only cannot be generalized. Further study is needed to make sense of how these processes apply to other individuals. Moreover, while the same learning models presumably apply outside the context of counterinsurgency, the cases above offer no evidence to that effect. The explanations above are in some respects case-specific, detailing how and why individuals learned as they did in given contexts. The tools or components out of which they are assembled ought to apply in other cases as well, as ought the more general claims about the role of complexity. Nonetheless, the analytical utility of the theory beyond these cases and this context calls for additional research.

A second area of limitation concerns how learning impacts policymaking more generally. As should be clear above, successfully learning about complexity does not guarantee successful attainment of policy goals, for at least two reasons. First, a policy learner may reach useful conclusions, and convince his or her immediate peers of their value, but nonetheless be unable for structural or institutional reasons to deploy those lessons in the field. One may learn as much as one likes—if the learner lacks the authority to deploy what he or she learns, it will do little good. Galula’s experiences in Algeria, and Ewald’s in America alike, reflect this. Second, factors beyond policy choice and implementation contribute to conflict outcome. Insurgents, too, vary in quality and competence. Suboptimal learning outcomes may succeed where the enemy is less well adapted; where the enemy is ideally adapted, success may remain difficult or unattainable. Learning is not a panacea, and these other conditions are outside the scope of this study. Even

\textsuperscript{223} Exceptionally, Gunitsky (2013) focuses quite fruitfully on broad systemic effects while nonetheless gaining analytical traction. He does so by grafting complexity onto existing general IR theories—chiefly neorealism.
where learning succeeds—and it should be clear that learning well is difficult indeed—it offers no guarantee of success.

A third limitation is what the study does not tell us about counterinsurgency, or any other object of learning—namely, how best to conduct it. The adaptive exigencies of counterinsurgency, and indeed of many other policy problems, mean that successful learning does not occur once for all time. Thus, there may well be no one right form of counterinsurgency. Continual insurgent adaptation means that counterinsurgent adaptation must be continual as well. This is consistent with a pragmatist account, according to which the goal should be to attain not objectively true knowledge, but instead knowledge that is useful in practice. What is useful, and what is perceived to be useful, will change over time. A comparison to policy learning during the Cold War illustrates. Cold War security scholars understood deterrence as explicable by, and derived from, relatively pure abstractions, in the form of game theory and related tools. This was learning by paradigm. At the time it seemed to policymakers a wholly convincing way to grapple with the large but nonetheless linear problem of nuclear security. Since however, scholars have questioned this learning and its findings (Lebow and Stein 1994). Others have shown that learning by doing (Morgan 2011) and learning by simulation (DiCicco 2011) were also at work. Indeed, American and Soviet policymakers differed on how to conduct the Cold War (Ermart 1978; Hopf 2012). Retrospectively then, the Cold War may have been much more complex than a strict rationalist, game-theoretic paradigm suggested, and policymakers’ learning about it much more complex and tenuous. Something similar may one day prove true of the currently dominant population-centric paradigm of counterinsurgency. Indeed, some such correction appears already to be going on, in the form of the approach’s critics (Gentile 2013; Porch 2013). Similarly, Galula found late in his career that the nature of insurgency was changing, and at the time of his death had begun to revise his thinking accordingly (Galula 1965; 1967).

A last observation focuses on the purpose of counterinsurgency itself—specifically states’ practical motives for undertaking counterinsurgency, and the difficulties presented by it. Asymmetric war, like learning itself, is difficult. Great powers routinely win conventional wars, and routinely lose unconventional ones. Such wars are usually elective, that is, are not undertaken for existential reasons. Great powers generally survive these defeats, often with surprisingly little loss of status. Two of the three great powers above lost their wars, but were not
significantly or irrevocably diminished by the experience. Counterinsurgent wars appear both hard to win and hard to learn about. If losing them carries non-catastrophic costs, we should ask whether or not they are worth fighting in the first place. Learning to fight unnecessary wars well may be a less valuable skill than learning to avoid them. Motivations for elective counterinsurgency have varied widely, from colonial America, to South Africa, Algeria, Iraq, and onward. All counterinsurgents presumably consider their causes just, and those in this study are no exception. However, the bases for that perceived justice—in feudal and hierarchical codes of honor, in imperialism, in Cold War anticommunism, or in something else again—have nothing especially in common. The long historical project of countering insurgent warfare would appear to have nothing like a unifying purpose. It thus seems reasonable to ask why the practice so readily persists, given the significant challenges it presents.

Many of these concerns are captured in an incident from near the end of Ewald’s diary. In October 1781, after his capture by the American Revolutionaries, and after the British capitulation at Yorktown, Ewald was invited to dine with George Washington and a party of British, French, and American senior officers. Ewald described the occasion as an honor and a pleasure: “I greatly enjoyed the friendship of many other officers… One scarcely knew whether he was among friends or foes.” Nonetheless, at table, it was rapidly clear how much more the Europeans had in common—despite the war they had just fought against one another—than any of them had with the Americans (Ewald 1979, 342). “Such a jealousy came over General Washington that he cast stern expressions toward the French generals over the too-friendly relations between the French and our officers” (Ewald 1979, 342).

The struggle, not yet fully ended, over “what these poor fellows call ‘Liberty’” (Ewald 1979, 341) separated them deeply. The gulf between these men was not power-political; it was about ideologies or worldviews, about the goals or purposes of politics. These men lacked a common paradigm upon which to base understanding of the war they had fought. So it was at least for Ewald, whose grounding assumptions offered him few tools with which to understand the new politics in America.

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224 Compare, for example, Waltz (2003) on democracies and elective wars.
225 Indeed, the occasion may seem surprising to us now. While the result at Yorktown determined the war’s outcome, and the Treaty of Paris was still two years away (Middlekauff 2007, 559–81).
226 Ewald (1979, 342) reports that Washington’s displeasure or unease was sufficient that he had American guards replace their French peers outside the room where they dined.
When Ewald arrived in America in 1776, he had an established series of views about the British, their rebellious American opponents, the challenge he faced, and the nature of warfare itself. By the time he left—having been defeated, captured, and released by the Continental Army—he had revised some of these views almost completely, but others relatively little. Permitted to visit the American installation at West Point, he was amazed and aghast at the sight of the ragtag army that had defeated the British. He had learned what the revolutionaries could achieve, but he seems never to have fully understood the broader social and political conditions that permitted their achievements. “I can assert with much truth,” he wrote, “that the American officer, like his soldier, hates his foes more than we do. They admit this openly, and claim as the reason that they want more freedom than we, on our side, wish to give them” (Ewald 1979, 339). And yet, he remained astonished by both their commitment and their effectiveness. Irregular war was, and is, complex. The intellectual tools with which he attempted to make sense of America and of the war itself may have brought some limited cognitive order to that complexity, but they also imposed severe limits on his understanding. He learned, but only intermittently and incompletely. His understanding of his meeting with Washington was as much an understanding of his own cognitive limits as of anything else.

Ewald never questioned why he served in what he termed the America War. And yet, his motivations were inextricably tied up with why he had so much difficulty understanding the conflict. He learned a great deal in eight years—more than his British paymasters—but still went home defeated. It seems unlikely that whatever insights he gained could have prevented this outcome, even had they been implemented. Ewald’s war was, like Callwell’s and Galula’s, a formative experience. We should not mistake it for a positive one. What they did learn, they learned with great difficulty. The very difficulty of learning about complex phenomena may be this study’s most important lesson.
References


