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Conceptualizing doctrinal rejection: a comparison between Active Defense and Airland Battle

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ABSTRACT

Doctrines are considered a key component of military power, shaping the ways in which armed forces organize and operate. This study critically examines the assumption that armed forces can change their practices by writing formal doctrine. The study addresses the research problem of why some formal doctrines are implemented and others are rejected. It does so by developing and testing a novel theoretical framework on doctrinal implementation through a comparative case study on rejection of the US Army 1976 Active Defense doctrine and successful implementation of the 1982 AirLand Battle doctrine. The study shows that contrary to popular beliefs, the actual concepts within a formal doctrine do not seem crucial for whether it is implemented or rejected. Rather, cultural coherence and inclusive creation seem crucial in this regard.

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Introduction

This study critically examines the assumption that armed forces can change their practices by writing formal doctrine. In its widest sense, military doctrines are institutionalized beliefs about what works in war and military operations (Høiback 2013). Both scholars and practitioners regard doctrine as an integral component of military power, believed to shape the way in which military forces organize and operate (Biddle 2004; Finkel 2020; Grauer 2016; Lawrence 2017; Storr 2009). Virtually all states write formal military doctrine; from major powers like the United States (US) and China, to middle powers like Canada and Germany, and even small powers like Norway and Sweden (English 2005; Kronvall and Petersson 2016; Olsen and van Creveld 2011). Even multilateral organizations such as the United Nations (UN) and the North Atlantic Treaty Organization (NATO) have formal military doctrines. This study uses the term formal doctrine to describe "authoritative and prescriptive documents containing concepts of warfare" and practiced doctrine to describe "the practiced concepts when applying military force." Implementation is the adopting of concepts from formal doctrine as practices. A military that showcases discrepancy between prescribed concepts and actual practices are considered to have rejected their formal doctrine.

This study argues that writing formal doctrine is one thing, but implementing it is another. While both scholars and practitioners generally assume that changes in formal

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doctrine leads to changes in practices, there are several cases that put this assumption into question. One such case is the 2006 Lebanon War, where the Israel Defense Forces (IDF) had written a new formal doctrine prior to the war, containing new warfighting concepts such as effects-based operations, systemic design and a new order of battle (Finkel 2020). However, the doctrine was controversial and the IDF rejected large parts of it, which became apparent during the fighting. The result was an unclear mixture between old and new doctrinal concepts, and the failure to implement formal doctrine not only degraded the IDF's military performance, but meant that the decision to go to war had been based on faulty assumptions about how effective the IDF would be (Eilam 2018; Marcus 2018).

Why some formal doctrines are implemented and others rejected is so far largely overlooked within academia, which limits our understanding of the role of doctrine as a component of military power. This paper is guided by the question of why some formal doctrines are implemented and others are rejected. It answers the question by developing and testing a novel theoretical framework on doctrinal implementation through a comparative case study on the rejection of the US Army 1976 Active Defense doctrine and the successful implementation of the 1982 AirLand Battle doctrine. The study shows that contrary to previous beliefs, the actual concepts within a formal doctrine do not seem crucial for whether it is implemented or rejected. Rather, cultural coherence and inclusive creation seem crucial in this regard.

I make three primary contributions. First, I combine insights from several research fields to develop and test a novel theoretical framework for why doctrinal implementation varies. Second, I make an empirical contribution through a systematic study of two cases of doctrinal implementation, relying to a large degree on primary data. Lastly, I provide nuances on the function of doctrine as a component of military power by studying how formal doctrines shape – and sometimes fail to shape – military practices. This paper proceeds as follows. First, I outline existing research relevant to understand doctrinal implementation and why this topic is deserving of study. I then develop the theoretical framework. Following this, I present the study's research design before conducting the analysis. I end the study with conclusions and suggestions for future research.

Previous research

Doctrinal research from the 1980s to early 2000s tended to study doctrine as the behaviour of armed forces in combat or in exercises (Avant 1993; Doughty 1984; Eisenstadt and Pollack 2001; Kier 1997; Levite 1989; Posen 1984; Rosen 1991; Snyder 1984). These studies have understood doctrine as either the general military strategy of a state or as what Stephen Biddle has called force employment – the ways in which armed forces are organized and operate on the battlefield (Biddle 2004). Common for these studies are that they understand doctrine as the sum of practices, whether in peacetime or war. In contrast, contemporary doctrinal research has primarily examined doctrine in the form of official military documents prescribing concepts for generating and using military power (Bjerga and Laugen Haaland 2010; Høiback 2016; Jackson 2013; Jensen 2016; Kronvall and Petersson 2016; Paparone 2017; Slensvik and Ydstebø 2016; Sloan 2012). Their understanding of doctrine is foremost concerned documents titled doctrine

that armed forces publish, such as NATO's AJP-01 Allied Joint Doctrine (NATO 2017). However, their definition of doctrine also tends to include manuals, handbooks, war plans and other documents that prescribe warfighting concepts. Additionally, previous research has discussed doctrines existing at different levels, from political doctrines, such as the Truman Doctrine, to military strategic, operational and tactical doctrines (Luttwak 2001; Strachan 2009; Vego 2008). Due to previous research having used the term doctrine for many different purposes, I settle for broad and inclusive definitions and use the terms formal doctrine to describe "authoritative and prescriptive documents containing concepts of warfare" and practiced doctrine to describe "the practiced concepts when applying military force." This study is concerned with military doctrines and does not address political doctrines. Furthermore, it does not distinguish between tactical, operational and strategic doctrines, seeing them all as manifestations of the broader term military doctrine.

There is an assumption within both war studies and the military profession that formal doctrines shape military power. The proposed causal chain is that formal doctrines prescribe an official theory on how to best organize and use military forces. As armed forces are hierarchical and follow orders, these formally endorsed theories on war are expected to influence practices, ultimately shaping the ways in which military forces are organized and operate on the battlefield (Chapman 2009; Jackson 2013; Thunholm and Widén 2018; Tritten 1995). Organization and ways of operating have in turn been found to be crucial for battlefield performance and overall military power (Biddle 2004; Finkel 2020; Grauer 2016; Lawrence 2017; Storr 2009). Therefore, the conclusion tends to be that formal doctrines influence military power as they shape practiced doctrine by prescribing an official theory of war. However, this causal chain is understudied and previous research has predominantly focused on what causes change within either formal or practiced doctrine; not the interaction between the two.

Doctrinal studies have found changes in formal doctrine to be caused by shocks, bureaucratic competition, mavericks, incubators, sponsors and advocacy networks (Jackson 2013; Jensen 2016; Kronvall and Petersson 2016; Paparone 2017). They have also found shocks, civilian interference, technology and culture to cause changes within practiced doctrine (Kier 1997; Mahnken 2008; Posen 1984; Rosen 1991). Within military innovation studies, changes in practiced doctrine have been found to depend upon culture (Adamsky 2010; Farrell 2005; Farrell and Terriff 2002), institutional actors (Avant 1993; Marquis 1997) or battlefield experiences (Marcus 2018; Murray 2011; Russell et al. 2013; Schmitt 2017; Serena 2011). Within military theory, most studies have focused on either the effects of doctrine upon military power (Biddle 2004; Grauer 2016; Lawrence 2017; Storr 2009) or raised critical arguments about the risks or unclear purposes of doctrine (Angstrom and Widen 2016; Reiter 2017; Widén and Olsén 2020). There are, however, several empirical studies that illustrate cases in which formal doctrines have supposedly been rejected by armed forces. Wartime examples include the Soviet invasion of Finland in 1939 (Kipp 2011), overly offensive Israeli practices in 1973 (van Creveld 2002) and British struggles with counterinsurgency doctrine in Iraq and Afghanistan in the 2000s (Ucko and Egnell 2013). Peacetime examples include failure to implement a nuclear warfighting doctrine in the British Army during the Cold War (Moody 2020), US Navy rejection of formal doctrine in the 1990s (Jackson 2013) and contradictive Swedish army doctrine during the 1950s (Hallqvist 2019). While

illustrating rejection, these studies have not systematically delved into the causes and only present anecdotal arguments to why implementation failed. In fact, only a few studies have discussed more generally why formal doctrines are sometimes implemented, but other times rejected (Finkel 2011, 2020). According to this research, doctrinal implementation requires that the officers' corps consider the formal doctrine credible, which in turn is based on the perceived logical value of doctrinal concepts and how these harmonize with the organization's culture. Yet, no coherent theoretical framework has yet been developed and this study now proceeds by combining insights from previous research into one.

Theorizing doctrinal rejection

I have probed the mechanisms of doctrinal implementation in a previous article, in which I synthesized anecdotal evidence from a wide range of studies into a theoretical model on doctrinal implementation (Nisser 2021). In the current study, I develop my previous model into a theoretical framework and test it. The study uses a binary view on implementation, considering a formal doctrine implemented when practiced concepts overlap with prescribed concepts, or rejected when the concepts in formal doctrine and practices do not overlap. The study departs from the assumption that formal doctrines ought to be implemented and theorizes as to why they are sometimes rejected. I theorize that rejection is caused the contents of formal doctrine or the ways in which it is created and develop hypotheses based on the three Cs of formal doctrine: how concepts, cultural coherence and creation processes may cause rejection.

While some assume that the hierarchical nature of armed forces is sufficient for formal doctrines to be implemented, I argue that the cases in which formal doctrines have been rejected are sufficient to debunk that idea. Instead, there must be other factors at play. I depart from the notion that military professionals are unlikely to follow prescriptions blindly and instead assume that they implement concepts that they perceive will increase performance in war or military operations (Finkel 2020; Høiback 2016; Nisser 2021). Who these professionals are varies depending on the doctrine: for tactical doctrines the primary audience is likely field grade officers like captains, majors and colonels, while operational and strategic doctrines primarily address higher ranking officers. As such, I theorize broadly that successful implementation requires the approval of the formal doctrine by the officers' corps, specifically those parts that are expected to carry out the prescriptions of the doctrine. How is such approval achieved?

We begin with the notion that the contents of formal doctrine is determinant for implementation (Finkel 2020; Høiback 2016; Jackson 2013). The core of a formal doctrine are its concepts, which combine to form the theory of victory that the doctrine prescribes. Doctrinal concepts can be offensive or defensive, focus on mass or manoeuvre and many other things. I theorize that those that are subject to the formal doctrine assess the logical value of doctrinal concepts based on how they harmonize with available resources, perceivable threats, given tasks and beliefs about what works in warfare. Doctrinal concepts that make sense based on these factors will be implemented, as they are both sanctioned and seem like a logical solution. In contrast, concepts that are seen as illogical are likely to be rejected as officers will perceive that they will degrade the organizations' military power. An example of a doctrinal concept and its likely effect

on rejection is the doctrinal dilemma. Military professionals tend to believe that a doctrine has to provide them leeway in how to prepare for and conduct warfare, while at the same time not being too imprecise (Hughes 1995; Widén and Olsén 2020). As such, a doctrine with a highly centralized command concept may be rejected, but the same holds true for a doctrine that is vague. The first hypothesis is formulated as:

Hypothesis 1: Illogical doctrinal concepts cause rejection.

The other aspect of how doctrinal content may influences rejection lies in the doctrines cultural coherency and Barry Posen put forth the argument that doctrines are sometimes rejected because they do not "feel right" (Posen 2016). This resonates with previous research on how presentation sets the tone of formal doctrines and can serve to either align them with organizational culture or to clash with it (Finkel 2020). This study uses the definition of organizational culture as the ideas, norms and beliefs that are dominant within the organization (Mansoor and Murray 2019). I theorize that the ways in which concepts are presented in formal doctrine through the use of language, the amount of text allotted to different doctrinal concepts and more shape how they are perceived by their recipients and a formal doctrine may be rejected because its presentation skews it into something which is at odds with the culture of the military organization and which "feels wrong." For example, the attempt to introduce formal doctrine into the US Navy in the 1990s did not contain concepts that in themselves were illogical or in stark contrast to US Navy beliefs (Chapman 2009; Jackson 2013). Rather, written doctrine presented concepts in ways that made them seem as a detraction from the Navy culture of decentralization and freedom of action. Based on this, the second hypothesis is formulated as:

Hypothesis 2: Lack of cultural coherency causes rejection.

There is also a potential explanation to doctrinal rejection that lies outside of the contents of formal doctrine. Inclusive creation processes have been found to be of importance when changing formal doctrine (Bjerga and Laugen Haaland 2010; Jensen 2016; Rosen 1991) and I theorize that it also matters for the implementation. The central idea is that it is easier to cause change by encouraging participation. Inclusiveness lowers resistance to change, as having been able to influence changes creates a sense of agency and ownership. It also means that ideas are introduced incrementally and not suddenly through the publication of a new doctrine, giving the organization time to adjust to novel concepts. Participation also creates agents that champion the new concepts as they emerge, meaning that implementation is not just dependent upon those that are formally tasked with creating new doctrine, but agents throughout the entire organization. For example, attempts after the Korean War to change the US Army into a fighting force capable of operating on the nuclear battlefield resulted in a new doctrine with Pentomic Divisions, created by General Maxwell Taylor in the late 1950s. The Pentomic Divisions were met by severe resistance from the Army, in part because the ideas championed by Taylor were not reflected within the officers' corps and the excluding creation had failed to anchor the concepts within the Army (Bacevic 1986; Trauschweizer 2008). As such, an

excluding creation is expected to contribute to rejection and the third hypothesis is formulated as:

Hypothesis 3: Exclusive creation processes cause rejection.

Research design

This study is designed as a cross-sectional observational study – popularly called comparative case study – utilizing the method of structured focused comparison (SFC) and a most-similar case selection strategy (George 2019; George and Bennett 2005; Gerring 2008; Kellstedt and Whitten 2013). This combination addresses four causal hurdles; there is an underlying theory about causality, and reversed causality, covariation and isolation are controlled for using SFC in combination with a most-similar case selection strategy (Kellstedt and Whitten 2013). SFC ensures comparable data through a set of general questions posed when collecting it (George and Bennett 2005).[1] Cases are selected according to the most similar criteria, to be representable of the larger population of military organizations with formal doctrines, while showcasing variation on the dependent variable, rejection, and being as similar as possible on the control variables (Gerring 2008). Based on this strategy, two cases are selected from the US Army: the 1976 Active Defense doctrine and the 1982 AirLand Battle doctrine.

The cases display variation on the dependent variable, as Active Defense is commonly seen as having been rejected and AirLand Battle as implemented (Citino 2004; Echevarria 2011; Finkel 2020; Linn 2009; Mahnken 2008; Posen 2016; Trauschweizer 2008). The otherwise many similarities between the cases make them close to a natural experiment, as it is possible to control for the following alternative explanations: shocks (Mahnken 2008), civilian pressure (Posen 1984), the role of technology (Boot 2006; Gray 2004) and organizational culture (Adamsky 2010; Kier 1997). Shocks were similar, with a perceived increasing threat from the Soviet Union in both cases. External pressure from civilian leadership was also similar, with Washington wanting change but doctrinal revisions being initiated by the US Army in both cases. Both doctrines coincided with major technological innovations within the US military, yet these have been found to have occurred in parallel rather than in interaction with doctrinal development in both cases (Jensen 2016). Lastly, the organizational culture of the US Army can be assumed to have been similar between both cases due to their proximity.

To answer the hypotheses, three independent variables are studied: concepts, cultural coherence and creation. Concepts are operationalized as the core methods prescribed by the formal doctrines for how to organize and deploy the US Army in order to achieve its missions. It is studied through qualitative text analysis on the written doctrines, where all mentions of how to organize and operate the US Army in pursuit of its objectives are used as indicators of doctrinal concepts. The core ideas are summarized and compared between the formal doctrines to determine whether there were significant conceptual differences that can explain why one was implemented and the other rejected. Cultural coherence is operationalized as the presentation of written doctrine and analysed through qualitative text analysis. The use of language, tables, graphs, figures, and the amount of text allotted to describing core methods are used as indicators and compared

towards statements on US Army culture to determine cultural coherence. As with concepts, cultural coherence is compared across doctrines to determine likeliness and differences. Creation processes are studied by searching for indicators of how inclusive the creation process was, how concepts were circulated and to what degree the emergent doctrines were anchored within the army. Creation processes are also compared between the doctrines.

The qualitative research design of the study allows for high conceptual validity, which is beneficial when assessing variables that are difficult to quantify as is the case with concepts, cultural coherence and creation processes. A strength of SFC is that the predetermined questions used for collecting data benefit reliability. The data used in the study consists of both primary and secondary sources. The primary sources are the written doctrines, debate articles, memoirs, interview transcripts and correspondence by people who participated in creating the doctrine or were subject to it. The secondary sources consist of scholarly works that address the doctrines. Due to the availability of data, triangulation is possible in most instances. At the same time, several of the arguments used in the analysis are made by individuals and albeit instrumental in the creation or implementation of doctrine, their accounts are personal. As such, this study cannot claim to capture the opinions or behaviours of the entire US Army during the examined period, but the data is still considered sufficient to test the hypotheses. Because of the qualitative research design, the study cannot make claims to generalizability beyond the two studied case, but nonetheless serve as an illuminating probe into the causes of doctrinal rejection.

Analysis

Introduction to the cases

In 1973, the US Army Chief of Staff assigned General William DePuy command of the newly organized United States Army Training and Doctrine Command (TRADOC) and tasked him with the creation of a new army doctrine (Gole 2008, 238). The doctrine was published in 1976, formally named FM 100–5 Operations but popularly called Active Defense after one of its core concepts. It focused on the problem of how to "win the first battle of the next war" (Department of the Army 1976, 1–1). Active Defense is widely considered a rejected doctrine by academics (Echevarria 2011; Finkel 2020; Linn 2009; Mahnken 2008; Posen 2016; Trauschweizer 2008). Rejection is also reflected in the writings of military professionals (Andreacchio 1981, 49; Downing 1981, 71; Starry 2009, 1:xii; Swain 1999, 378; Wagner 1980, 4; Wass de Czege 2006, 5). The strongest argument for rejection lies in the negative opinions held by US Army officers on Active Defense, especially the significant body of critique that was expressed publicly. Public critique of the doctrine began when defence analyst William Lind published a critical text on Active Defense in Military Review in 1977 (Lind 1977, 54–65; Romjue 1984, 13). Following Lind's text, military professionals published close to 80 articles in Military Review between 1977 and 1981 criticizing the doctrine (Lock-Pullan 2003, 507). Several of the military sources noted above have raised the argument that the low opinion held by officers on Active Defense meant that they would likely disregard the doctrine if called upon to use it in combat. Additionally, rejection is reflected in several accounts of officers

discarding doctrinal concepts during large unit exercises (Andreacchio 1981, 49; Downing 1981, 64; Swain 1999, 379; Wagner 1980, 4). The claims laid forth about rejection resonates with research on how beliefs, of which opinions are an expression, are indicative of wartime practices (Finlan 2013; Kier 1997; Ruffa 2018; Weissmann and Ahlström 2019), as well as research on how exercise behaviour during peace can be indicative of wartime practices (Gratch and Marsella 2003; Öberg 2020).

Creation of AirLand Battle began in 1979, as the army Chief of Staff prompted the successor to DePuy, General Donn Starry, to revise the doctrine (Jensen 2016, 65; Swain 1996, 157). Starry had been active in the development of Active Defense, but had then been assigned command over V Corps in Germany in 1976. This gave him a year to test the concepts of Active Defense before succeeding DePuy as commander of TRADOC in 1977 and his conclusions were that the doctrine was in need of revision (Starry 1978, 4–11; Swain 1996, 154). AirLand Battle focused on winning the central battle, a concept developed by Starry during his tenure in Germany (Jensen 2016, 69). This meant winning not the first, but the most critical battle of the next war. In contrast to the reception of Active Defense, AirLand Battle was met with much praise and implementation of the doctrine is reflected in the generally positive views expressed by officers, as well as doctrinal adherence during exercises. Some even argue that the ultimate evidence of doctrinal implementation came in 1991 during Operation Desert Storm (Paparone 2017, 522; Swain 1999, 394; Trauschweizer 2008, 228). The study now proceeds with testing the three hypotheses on why Active Defense was rejected, while AirLand Battle was implemented.

Hypothesis 1: Illogical doctrinal concepts cause rejection.

The implicit purpose of the Active Defense was stopping a communist advance into Europe and to do this the doctrine emphasized an overall defensive strategy, albeit with a focus on initiative reflected in the phrase "active defense" (Department of the Army 1976, 4–3). The doctrine focused on how to win at the tactical, rather than the operational or strategic level (Department of the Army 1976, 1–1). It assumed that changes in technology had made defence the stronger form of warfare, especially for US forces deployed in Europe that could not count on reinforcements rapidly, but who had access to advanced technology (Department of the Army 1976, 5–1). Active Defense assumed that Warsaw Pact (WP) forces would advance primarily along one focused thrust to achieve a breakthrough and because of US numerical inferiority, all forces were to be committed to stopping the breakthrough. There were no traditional reserves at the brigade and division levels, instead reserves would consist of units not yet engaged that would reposition themselves once the main thrust had been identified (Department of the Army 1976, 5–2).

The rejection of Active Defense has primarily been attributed to five conceptual shortcomings: its defensive bias, its lack of principles, its reliance upon battle calculations its lack of reserves and its inability to stop follow on forces. Several sources note how Active Defense quickly became associated with the defensive and was even ascribed a lack of initiative (Doughty 1979, 45; Leonhard 1991, 133; Romjue 1984, 9; Swain 1999, 378). However, such a defensive bias was not clearly stated in Active Defense and text analysis shows that while the doctrine devoted more text to discussing defensive operations, it did

emphasize that a commander must balance between the offense and defence (Department of the Army 1976, 4–3). It even argued that offensive actions were a necessary part of an overall defensive strategy. TRADOC additionally tried to argue for the doctrine having a balanced approach after publication, but once critics had made up their mind, they were hard to change. A second point of critique was the lack of principles of war within the doctrine and its creator, DePuy, even argued in retrospect that it was one the doctrine's gravest mistakes (DePuy 1995, 431; Romjue 1984, 53; Trauschweizer 2008, 210). While there are no formally stated principles in Active Defense, the doctrine included de facto principles under the heading of "BATTLEFIELD DYNAMICS," such as concentration, combined arms, and more (Department of the Army 1976, 3–3). Third was the critique against the scientific nature of Active Defense, especially the use of statistics and battle calculations to determine the scientifically correct way of fighting (Downing 1981, 66; Leonhard 1991, 131; Swain 1999, 383). However, the use of battle calculations was not unique to Active Defense and AirLand Battle built upon similar calculations, yet as will be discussed later, they were presented more subtly.

AirLand Battle focused on the central battle, which required significant operational depth and manoeuvre. This resulted in the development of the concept of extended battlefield: striking against enemy second and third echelons through interdiction (Department of the Army 1982, 2–1). The problem with the extended battlefield concept was that the US Army lacked the resources to gather intelligence and engage targets far behind the front line, so to remedy this problem the army sought an increased cooperation with the US Air Force (Romjue 1984, 100–108). The core ideas of AirLand Battle were initiative, depth, agility and synchronization (Department of the Army 1982, 2–2). AirLand Battle claimed consistency with NATO doctrine, although there was criticism that there would be competition over interdiction resources, as NATO had their own Follow-On-Forces Attack (FOFA) doctrine centred on theatre wide interdiction, whilst the US Army had a corps centred interdiction doctrine (Swain 1999, 389). AirLand Battle also introduced the operational level of warfare – the connecting surface between tactics and strategy, after pressure from General Glenn Otis, successor to Starry and responsible for the publishing of AirLand Battle (Swain 1996, 159–160). Otis was influenced by Edward Luttwak, who had published an article in 1980 about operational art that had gained significant attention within the US Army. However, the doctrinal writers were sceptical towards the introduction of the operational level of war and the 1982 edition displays a muddled understanding of the concept, something that was improved in the 1986 edition (Department of the Army 1982, 2–3, 1986, 10). The army, however, welcomed the introduction of the operational level of war (Swain 1999, 383).

Despite their seeming differences, the two doctrines were remarkably similar in how they conceptualized warfare when compared. They both championed a use of defensive as well as offensive actions, they both included principles of warfare, albeit packaged differently and they were both created using scientifically informed methods that relied to a large degree upon operations analysis and battle calculus. AirLand Battle is often hailed as the US Army's first operational doctrine, but the concept is remarkably abstract in the first edition. The only two significant differences between the doctrines in terms of concepts are the lack of reserves and inability to address follow on forces within Active Defense. While this constituted conceptual problems for active Active Defense, they

dwarf in comparison to all the similarities the doctrines otherwise had. This suggests that the reasons for Active Defense's rejection do not lie in its concepts and hypothesis 1 is considered falsified.

Hypothesis 2: Lack of cultural coherency causes rejection.

As noted, Active Defense was perceived as defensive and lacking initiative. This was likely due to the doctrine devoting more text, 18 pages versus 12, to discussing defensive and retrograde operations in contrast to offensive operations (Department of the Army 1976, 3–1, 4–1, 5–1). The doctrine also included careful wordings about the merits of offensive operations, such as that US forces should only attack "if he expects the eventual outcome to result in decisively greater enemy losses [. . .]" (Department of the Army 1976, 4–3). This resulted in an aura of defensiveness and cautiousness. Another point of critique was on what many perceived as a discarding of the traditional principles of war, which had been present in some form or the other since 1921 (DePuy 1995, 431; Romjue 1984, 53; Trauschweizer 2008, 210). Yet, as mentioned above, there were de facto principles in the doctrine, so the critique was more a question about how they were presented, rather than if they were present at all. A third critique against Active Defense was its perceived scientific approach to warfare and implicit notion that "what can't be measured must not be" (Leonhard 1991, 131). Active Defense contained many charts and tables, depicting everything from the likelihood of a knockout hit at different ranges in tank against tank battles, to the average weather in Germany during different months (Department of the Army 1976, 2–3, 13–12). The doctrine also had a prescriptive tone, in which its concepts were presented as definitive solutions rather than concepts to be applied with judgment. Army officers and defence intellectuals argued that the doctrine had disregarded the art of war in its pursuit of a science of war (Downing 1981, 66; Leonhard 1991, 131) and secondary sources claim that many officers felt that the doctrine reduced battle to a scheme (Romjue 1984, 10; Swain 1996, 151).

AirLand Battle clearly addressed critique against Active Defense by being explicit about the necessity of offensive operations, while also preaching a balance between the offense and defense (Department of the Army 1982, 8–1). Principles of war returned in AirLand Battle as an appendix, but made no major impact within the text (Department of the Army 1982, B-1). In contrast to Active Defense's technical and prescriptive language, AirLand Battle sought to engage the reader in more general discussions about how to apply the doctrinal concepts with judgment. It even used historical campaigns as illustrative examples of its concepts (Department of the Army 1982, 8–2). Furthermore, AirLand Battle signalled a return towards traditional US Army values and emphasized the importance of the individual soldier and leadership (Department of the Army 1982, 1–3). Huba Wass de Czege, one of the key doctrinal writers behind AirLand battle, claimed its tone was inspired by the 1940 version of FM 100–5, which was a classic within the US Army (Wass de Czege 2006, 14). Graphs and tables were largely removed and instead the doctrine featured pictures and maps to convey the general idea of the text.

This study finds cultural coherence to matter for doctrinal rejection, as the two doctrines were so similar in concepts, yet different in presentation. Simply put, Active Defense presented its concepts in ways that clashed with US Army culture, especially its

values of offensive spirit, leadership and initiative (Echevarria 2011, 142; Jackson 2013, iii; Mansoor and Murray 2019, 2). AirLand Battle managed to avoid this by emphasizing offensive operations, formally stating warfighting principles and discarding the scientific jargon in favour of a tried and true vocabulary with emphasis on leadership, the human aspect of war and other American traditions. This highlights how two doctrines that were developed with similar methods and contained largely similar concepts were received differently due to their presentation. This gives hypothesis 2 support.

Hypothesis 3: Exclusive creation processes cause rejection.

The creation of Active Defense was unorthodox and DePuy bypassed the conventional doctrine creation process and removed responsibility from Command and General Staff College's (CGSC) Combined Arms Center (CAC) and instead centralized writing to TRADOC's Concepts Branch. This concentrated the creation process to a small group directly under DePuy, often referred to as the "Boathouse Gang" (Jensen 2016, 53; Swain 1999, 371). DePuy came to exercise a significant personal influence over the doctrine, which lend the doctrine a strong association with him as a person (Linn 2009, 206; Swain 1999, 371). Despite DePuy circulating emergent doctrinal concepts within the army, participation in the writing of doctrine was limited and it was rushed into publication in 1976, one year before DePuy's retirement, skipping the traditional wide staff review within the army. This created frustration within the air mobility community amongst others, who felt that their role was diminishing without an ability to influence these changes (Jensen 2016, 48; Romjue 1984, 5). DePuy tried to mitigate discontent not only through circulation of concepts, but also held conferences where he invited senior army personnel and ran them through key concepts of the developing doctrine. This circulation was however top-down, initiated by DePuy and conducted through the formal army hierarchy and the ability to impact the doctrine was limited, despite DePuy's wish to make it an Army wide matter.

Creation of AirLand Battle was different. In contrast to DePuy, Starry returned responsibility for doctrinal development to the CAC at the CGSC (Jensen 2016, 75). Starry also distances himself personally from the writing of doctrine, as to not create a close association between himself and the new doctrine (Starry 2009, 1:27; Swain 1999, 381; Wass de Czege 2006, 6). There is some discussion as to the extent of Starry's influence over AirLand Battle, but it is clear that the doctrine is less associated with him than Active Defense was with DePuy. Where Active Defense had primarily been created from the top down, members from the army's different branches participated in the drafting of AirLand Battle at different organizational levels (Jensen 2016, 85). While still serving at TRADOC, Starry socialized the emerging doctrinal concepts towards the army through correspondence, lectures and conferences (Jensen 2016, 81; Romjue 1984, 43). The doctrine writing staff were tasked with briefing the army at large about the developing doctrine and they even invited defence intellectuals who had previously been critical of Active Defense, such as Lind and Luttwak, to comment on drafts of the new doctrine. AirLand Battle was also subject to the traditional staff review process that Active Defense had circumvented. Starry himself wrote articles about the doctrine and its concepts, having them published in military periodicals (Starry 1981, 31–50). Staffers that were part of the writing team were also encouraged to communicate their ideas

about AirLand Battle, resulting in a series of articles on how it could be interpreted and put into practice (Jensen 2016, 75).

This study finds that the excluding, top-down creation of Active Defense neglected large parts of the army and failed to communicate the emergent doctrinal concepts in ways that made them take hold. The close association between the doctrine and DePuy also made it seem like his personal project rather than an army wide interest. In contrast, AirLand Battle was written by a neutral body that represented multiple stakeholders within the army and during the creation process, circulation and participation was not only top down, but also conducted horizontally by members of the writing staff. When taken together, the empirical evidence suggests that the rejection of Active Defense was at least part because of its excluding creation process, lending support for hypothesis 3.

Doctrinal rejection revisited

Contrary to the expectation that doctrinal concepts are most significant for implementation, support was not found for hypothesis 1, as Active Defense was rejected despite its conceptual similarities to AirLand battle. Instead, cultural coherence seems to matter for implementation and the stark differences in presentation between Active Defense and AirLand Battle illustrates how concepts can be warped based on how they are presented, lending support to hypothesis 2. This finding is noteworthy, as scholars have reasoned that if doctrinal concepts logical, the doctrine is likely to be implemented (Finkel 2020; Høiback 2016; Jackson 2013), while the current study suggests that it is more a question of presentation rather than content. Support was also found for hypothesis 3 and the excluding and top-down creation of Active Defense seems to have contributed to its rejection. This study cannot isolate the effects of cultural coherence versus creation processes and has to assume that they were both determinant for the rejection of Active Defense.

Beyond the hypotheses tested, this study also sheds new light on the role of authority. The study suggests that authority is not as simple as a doctrine requiring sanction by a position of power, as previously theorized (Nisser 2021). DePuy was one of the top generals in the US Army and the doctrine was rejected despite this. He remains a controversial figure, both praised and criticized. Incisive, thought minded and ruthless in the pursuit of his goals, there was a strong association between Active Defense and DePuy. This caused some officers to dismiss the doctrine as "DePuy's doctrine" and irritation over his personality arguably bled over into what officers thought about the doctrine (Linn 2009, 206). Starry seems to have been no less of a colourful character, but his decision to distance himself from AirLand Battle meant that the doctrine was not personally associated with him. It can be assumed that doctrines require some form of authority, which both of the studied doctrines had, but that the relationship between authority and implementation is like a bell curve and not linear. A doctrine too strongly associated with an individual could become harder to implement if it is branded as that person's doctrine. Developing this train of thought, the study suggests that branding is an important aspect of implementation. Starry noted in 1976 that there was contempt within the US Army against doctrines written at TRADOC, something he called the "Fort Leavenworth malaise" (Swain 1999, 376). Such contempt against concepts imposed on fighting units by non-fighting units is not unique to the US Army, but the decision to

include large parts of the army to create AirLand Battle, thereby wresting control over the doctrine from Fort Leavenworth in the eyes of the army, shows how a doctrine is created can overcome hurdles, such as association with a person or institution. Still, this study has not found evidence that the rejection of Active Defense can be attributed to DePuy, but rather that it was a consequence of the way in which it was created and presented.

The study has not uncovered any alternative explanations as to why Active Defense was rejected while AirLand Battle was implemented, as the control variables dismiss popular explanations for change in practiced doctrine. Another plausible alternative explanation is that competition over resources can foster doctrinal innovation (Halperin and Clapp 2007). However, the army went through its most dire budgetary period during Active Defense and the doctrine was still rejected. Also, Stephen Rosen has raised the argument that armies are more likely to change after experiencing battlefield defeat (Rosen 1991, 9), but Active Defense was the doctrine closest in time to a major military failure and was still not implemented.

A concluding discussion is on the question of interdependence. Was the success of AirLand Battle due to the failure of Active Defense? By creating controversy, Active Defense had sparked an intellectual renaissance within the US Army and the late 1970s and early 1980s were a golden age for doctrinal discussions within the US Army officer corps. Never before had officers thought, talked and written so much about how the army should fight. This study cannot isolate the influence that Active Defense may have played upon the implementation of AirLand Battle, but the findings are conclusive in that its successful implementation was likely due to cultural coherence and inclusive creation processes, not the rejection of Active Defense.

Conclusions

This study has examined why formal military doctrines are sometimes implemented and other times rejected. The study has drawn on insights from doctrinal research, military innovation studies and military theory to develop and test a novel theoretical framework on doctrinal implementation. The study shows that contrary to popular beliefs, the actual concepts within a formal doctrine do not seem crucial for whether it is implemented or rejected. Rather, cultural coherence and inclusive creation processes seem crucial in this regard. Other popular explanations to overall doctrinal change, namely shocks, civilian pressure, technology, competition over resources and military failure do not seem to explain the variation in outcome. However, the results must be interpreted with caution, as the study has been limited to two cases and further uncovering of scope conditions to determine the generalizability of the theoretical framework is necessary.

The findings show that the effect of doctrine upon military power is not as simple as previously discussed within academia. It remains that doctrines can influence military power, but the study shows that there can be discrepancies between formal and practiced doctrine. This means that just because a military organization has a good formal doctrine, it is not certain that they will apply it. Militaries that want to increase their military power by writing doctrine have to invest resources in not only devising smart concepts, but in ensuring that they are culturally coherent and that concepts are anchored within the organization during creation. This study also hints at societal aspects of doctrinal implementation, as a key principle of democratic control over armed forces is

accountability and transparency. A military that does not follow its own doctrine begs the question if it will follow the commands of its civilian leadership.

I believe that future research should draw upon our bourgeoning understanding that formal and practiced doctrine are different things. Lazy use of the term doctrine has created a situation where it is unclear if research references formal doctrine, practiced doctrine or doctrine as generally held beliefs about warfare, when discussing the impact of doctrine upon military power. Conceptual clarity will better our understanding of the effects of doctrine upon military power. Since previous research has focused on change within either formal or practiced doctrine, there is ample room for connecting the two fields of study and examining how formal doctrines shape (or fail to shape) practiced doctrines. Specifically, I believe that future studies have three important areas to focus on. One is to better our measurements of implementation and provide a more detailed definition of it, preferably with a graded scale. This study has departed from popularly held beliefs about implementation and rejection in the cases studied, but the analysis has shown that the following activities may serve as indicators of doctrinal implementation. First, opinions amongst officers are likely to reflect underlying beliefs, which in turn have been found to influence wartime practices (Finlan 2013; Kier 1997; Ruffa 2018; Weissmann and Ahlström 2019). Second, behaviour during exercises, especially large unit exercises in which doctrinal concepts should be apparent, relate to research on how exercise behaviour can be indicative of wartime practices (Gratch and Marsella 2003; Öberg 2020). Third, the use of doctrine in military education should indicate if it is being implemented. Fourth, the dissemination of doctrinal concepts to underlying documents, such as handbooks and manuals, as well as other prescriptive documents like war plans, should be indicative of implementation. The second general area in which further research is needed is the continued development of the theoretical framework, especially by expanding upon the role of authority and whether it matters who is tasked with creating formal doctrine. The last area for future research is the expansion of study to additional cases, as implementation might be reliant upon varying factors depending on country and organisation.

Note

1. The questions used when collecting data were a) how was doctrinal implementation or lack thereof observable, b) what were the main concepts within formal doctrine, c) how where these presented, d) how was the formal doctrine created.

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Notes on contributor

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