

## Offence-defence Theory: Towards a Definitive Understanding

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Offence-defence theory (ODT) dominates the understanding of many security and international relations (IR) theorists of the role in international politics that military technology plays. ODT has produced some of the most cited works in realism literature,<sup>1</sup> as evident in the many works which—implicitly and explicitly—rely on ODT to propel their arguments.<sup>2</sup>

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<sup>1</sup> George H. Quester, *Offense and Defense in the International System* (New York, N.Y.: John Wiley and Sons, 1977); Robert Jervis “Cooperation under the security dilemma,” *World Politics*, Vol. 30, No. 2 (1978), pp. 167–214; Jack Snyder, “Civil-Military Relations and the Cult of the Offensive, 1914 and 1984,” *International Security*, Vol. 9, No. 1 (1984), pp. 108–146; Stephen Van Evera, “The Cult of the Offensive and the Origins of the First World War,” *International Security*, Vol. 9, No. 1 (1984), pp. 58–107; Stephen Van Evera, *Causes of War: Power and the Roots of Conflict* (Ithaca, N.Y.: Cornell University Press, 1999); and Charles L. Glaser and Chaim Kaufmann, “What Is the Offense-Defense Balance and How Can We Measure It?” *International Security*, Vol. 22, No. 4 (1998), pp. 44–82. In this article, ODT means orthodox or standard ODT (defined in section 1 below). In the literature, the works of Jervis, Quester, and Van Evera are usually accepted as the foundational works of orthodox ODT.

<sup>2</sup> See, for example, Thomas J. Christensen and Jack Snyder, ‘Chain Gangs and Passed Bucks: Predicting Alliance Patterns in Multipolarity’, *International Organization*, Vol. 44, No. 2 (1990), pp. 137–68; James D. Fearon, ‘Rationalist Explanations for War’, *International Organization*, Vol. 49, No. 3 (1995), pp. 401–404; Robert Gilpin, *War and Changes in World Politics* (Cambridge: Cambridge University Press, 1981), pp. 59–63; Charles L. Glaser, ‘Realists as Optimists: Cooperation as Self-help’, *International Security*, Vol. 19, No. 3 (1994), pp. 50–90; Charles L. Glaser, ‘When Are Arms Races Dangerous?’ *International Security*, Vol. 28, No. 4 (2004), pp. 44–84; Ted Hopf, ‘Polarity, The Offense Defense Balance, and War’, *American Political Science Review*, Vol. 85, No. 2 (1991), pp. 475–493; Andrew Kydd, *Trust and Mistrust in International Relations* (Princeton: Princeton University Press, 2005), pp. 31–33; Peter Liberman, ‘The Offense-defense Balance, Interdependence, and War’, *Security Studies*, Vol. 9, No. 1 & 2, 1999–2000, pp. 59–91; Evan Braden Montgomery, ‘Breaking out of the Security Dilemma: Realism, Reassurance, and the Problem of Uncertainty’, *International Security*, Vol. 31, No. 2 (2006), pp. 151–185; Barry Posen, *The Sources of Military Doctrines: France, Britain, and Germany between the World Wars* (Ithaca: Cornell

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ODT is classified in such literature as quintessential defensive realism theory,<sup>3</sup> and also identified as an important demarcation line between offensive and defensive realism.<sup>4</sup>

The impact of ODT goes far beyond that which it has made on strategic studies and the broader literature of realism. Its influence is such that even non-realists such as Robert Keohane, Lisa Martin, and Alexander Wendt have invoked ODT logic to operate arguments that counter the logic of (offensive) realism.<sup>5</sup>

ODT has always had its critics<sup>6</sup> who, as they become more sophisticated over the years, often question the theory's very foundations.<sup>7</sup> ODT proponents have responded with a vigorous defence of both its validity and utility

University Press, 1984); Barry Posen, 'The Security Dilemma and Ethnic Conflict', *Survival*, Vol. 35, No. 1 (1993), pp. 27–47; Robert Powell, 'Absolute and Relative Gains in International Relations Theory', *American Political Science Review*, Vol. 85, No. 4 (1991), pp. 1303–1320; William Rose, 'The Security Dilemma and Ethnic Conflict: Some New Hypotheses', *Security Studies*, Vol. 9, No. 4 (2000), pp. 1–51; and Shipping Tang 'A Systemic Theory of the Security Environment', *Journal of Strategic Studies*, Vol. 27, No. 1 (2004), pp. 1–32. For more complete lists of the works that rely on ODT, see Karen Ruth Adams, 'Attack and Conquer? International Anarchy and the Offense-Defense-Deterrence Balance', *International Security*, Vol. 28, No. 3 (2003/4), pp. 45–83; at pp. 45–7, footnotes 1–9 and Kier A. Lieber, *War and the Engineers: The Primacy of Politics over Technology* (Ithaca: Cornell University Press, 2005), chapter 1.

<sup>3</sup> Jeffery W. Taliaferro, 'Security Seeking under Anarchy: Defensive Realism Revisited', *International Security*, Vol. 25, No. 3 (2000/01), pp. 128–161, at p. 135.

<sup>4</sup> Kier A. Lieber, *War and the Engineers*, pp. 8–11.

<sup>5</sup> Robert O. Keohane and Lisa L. Martin, 'The Promise of Institutional Theory', *International Security*, Vol. 20, No. 1 (1995), pp. 39–51, at p. 44; and Alexander Wendt, *Social Theory of International Politics* (Cambridge: Cambridge University Press, 1999), pp. 357–363. Stephen Van Evera, however, still complains that ODT remains underappreciated. Stephen Van Evera, *Causes of War*, p. 117. This might be true among decision-makers, and for good reason (see below).

<sup>6</sup> See, for example, Colin S. Gray, *Weapons Don't Make War: Politics, Strategy, and Military Technology* (Lawrence: University Press of Kansas, 1993), esp. chapters 1–2; Samuel P. Huntington, 'U.S. Defense Strategy: The Strategic Innovations of the Reagan Years', in Joseph Kruzel, ed., *American Defense Annual, 1987–1988* (Lexington: Lexington Books, 1987), pp. 23–43, at pp. 35–7; Jack S. Levy 'The Offensive/Defensive Balance of Military Technology: A Theoretical and Historical Analysis', *International Studies Quarterly*, Vol. 28, No. 2 (1984), pp. 219–38; John Mearsheimer, *Conventional Deterrence* (Ithaca: Cornell University Press, 1983), pp. 29–30; and Jonathan Shimshoni, 'Technology, Military Advantage, and World War I: A Case for Military Entrepreneurship', *International Security*, Vol. 15, No. 3 (1990/91), pp. 187–215. For a recent feminist whack at ODT, see Lauren Wilcox, 'Gendering the Cult of the Offensive', *Security Studies*, Vol. 18, No. 2 (2009), pp. 214–40.

<sup>7</sup> Richard K. Betts, 'Must War Find a Way? A Review Essay', *International Security*, Vol. 24, No. 2 (1999), pp. 166–198; James W. Davis, Jr., 'Taking Offense at Offense-Defense Theory', *International Security*, Vol. 23, No. 3 (1998/99), pp. 179–182; Bernard I. Finel, 'Taking Offense at Offense-Defense Theory', *International Security*, Vol. 23, No. 3, 1998/99, pp. 182–189; James D. Fearon, 'The Offense-Defense Balance and War Since 1648', unpublished conference paper (Stanford University, 1997), accessed Oct. 2006; Stacie E. Goddard, 'Taking Offense at Offense-Defense Theory', *International Security*, Vol. 23, No. 3 (1998/99), pp. 189–195; Kier A. Lieber, 'Grasping the Technological Peace: The Offense-Defense Balance and International Security', *International Security*, Vol. 25, No. 1 (2000), pp. 71–104 and Kier A. Lieber, *War and the Engineers*.

for understanding international politics. They tout its virtues of being structural and parsimonious,<sup>8</sup> pointing out attempts still being made to reformulate, refine, and test ODT.<sup>9</sup> As it now stands, however, the validity and utility of ODT remain contested and unresolved.<sup>10</sup>

This article tries to advance a more definitive understanding of ODT. I show that both ODT proponents and opponents seriously underestimate its complexity. Specifically, the two critical components of ODT—differentiation or distinguishability of weapons and military postures as either offensive or defensive, and the offence-defence balance (ODB)—can and should be further unpacked into several sub-dimensions.<sup>11</sup> More critically, these sub-dimensions have different utilities for understanding international politics, as some are valid, operable and useful, and some are not.

I hence unpack into sub-dimensions these two major components of ODT and make critical examinations of each. To prevent any further waste of intellectual resources on futile research, I criticize those that are invalid, inoperable and useless and at the same time reformulate and rebuild those that are valid, operable, and useful, thus providing directions towards more fruitful research. I show that having spent relatively more resources on invalid ODT components, we have yet fully to appreciate the implications of theories that are valid, and that deepening our understanding of these components will yield concrete theoretical and policy payoffs. Although my endeavour is necessarily a dirty job that is bound to ruffle many feathers, it nevertheless contributes to IR literature, especially security studies, as well as to certain contemporary policy debates.

<sup>8</sup> Charles L. Glaser and Chaim Kaufmann, 'Correspondence: Taking Offense at Offense-Defense Theory', *International Security*, Vol. 23, No. 3 (1998/99), pp. 200–6; Sean M. Lynn-Jones, 'Offense-Defense Theory and Its Critics', *Security Studies*, Vol. 4, No. 4 (1995), pp. 672–4 and Stephen Van Evera 'Correspondence: Taking Offense at Offense-defense Theory', *International Security*, Vol. 23, No. 3 (1998/99), pp. 195–200. Stephen Van Evera claims that ODT is a 'master theory' and 'the most powerful and useful Realist theory on the causes of war'. Stephen Van Evera, *Causes of War*, p. 117; emphasis added.

<sup>9</sup> Karen Adams, 'Attack and Conquer?'; Stephen Biddle, 'Rebuilding the Foundation of Offense-Defense Theory', *Journal of Politics*, Vol. 63, No. 3 (2001), pp. 741–74; Yoav Gortzak, Yoram Z. Hazfel, and Kevin Sweeney, 'Offense-Defense Theory: An Empirical Assessment', *Journal of Conflict Resolution*, Vol. 49, No. 1 (2005), pp. 67–89; Kier A. Lieber, 'Grasping the Technological Peace: The Offense-Defense Balance and International Security', *International Security*, Vol. 25, No. 1 (2000), pp. 71–104; and Kier A. Lieber, *War and the Engineers*. Biddle's work is both a critique of orthodox ODB and an attempt to offer an unorthodox formulation of ODB. I do not deal in depth here with unorthodox ODB.

<sup>10</sup> For a summary of more recent debate on ODT, see Sean Lynn-Jones 'Does Offense-Defense Theory Have a Future?' <http://www.ciaonet.org/wps/lys03/lys03.pdf> (accessed on July 4, 2008).

<sup>11</sup> The other critical component is geography. Ignoring it, however, does not jeopardize the arguments below.

My discussion leads to four general conclusions. First, that objective ODB is essentially a theoretical hoax that exists only in the imagination of ODB proponents and which hence merits no further intellectual resources. Second, although subjective ODB might be useful for understanding international politics, much of existing research on subjective ODB has yet to touch upon the most fundamental aspects of it. Third, although differentiation of military postures is possible, that for most weapons, upon which existing discussion unfortunately focuses, is not. Existing discussion on differentiation has also missed the real difference between offensive realism on the one side and non-offensive realism theories on the other side. As a result, theories on signalling benign intentions through military postures—which obviously hinge on military posture differentiation—remain underdeveloped.<sup>12</sup> Fourth, classifying ODT as a quintessential defensive realism theory or identifying it as a demarcation line between offensive realism and defensive realism is at best simplistic and at worst incorrect.

Before proceeding, I specify three caveats. First, I am fully aware that others have raised the argument that ODT literature consists of a group of arguments rather than a body of theories.<sup>13</sup> I disagree. Although a portion of ODT literature indeed comprises a raft of various statements, there is much that also presents theories or proto-theories, if theory is defined as a scientific explanation of a phenomenon or phenomena. Moreover, most ODT proponents subscribe to two common key propositions (see the first section). As such, ODT should be treated as a body of related theories or proto-theories, although not a single theory.

Second, over the years the logic of ODT has been employed for understanding many issues, such as causes of war, problems of cooperation and ethnic conflict. During discussion I touch upon certain of these applications whenever appropriate, but rather than dealing with them extensively or in-depth, my focus is on the fundamentals of ODT. The rationale here is that a better grounding in this theory makes apparent that certain ODT applications are misguided and should be rejected or reformulated, and certain others are underdeveloped and should be strengthened.

Third, because most proponents of ODT deal exclusively with the pre-mutual assured destruction (MAD) era or with human history itself (which more or less covers the pre-MAD era) I first deal with ODT as if it were purely a theory of war and peace in the pre-MAD era. I return to the relationship between nuclear weapons and ODT only after considering the validity and utility of ODT in the pre-MAD or conventional era.

<sup>12</sup> For earlier discussions, see Charles Glaser, 'Realists and Optimists'; Andrew Kydd, *Trust and Mistrust in International Relations*; and Evan Montgomery, 'Breaking out of the Security Dilemma'.

<sup>13</sup> Karen Adams, 'Attack and Conquer?' p. 46, footnote 5.

The rest of this article is in seven sections. First section defines and delineates ODT and clarifies the miscellaneous, different levels of analysis applicable to discussing a state's military and national military strategy. The section 'Differentiation of Military Postures and Weapons' examines the possible differentiation of military postures and weapons into offensive and defensive types. The section 'The Objective ODB' addresses the objective interpretations of ODB and section 'The Subjective ODB' addressed the subjective interpretations of ODB. The section 'Defending and Testing the Balance' investigates some of the more systematic defences so far of ODB and also recent empirical tests of ODB and war to reveal that ODB is essentially indefensible and that empirical evidence for ODB is at best weak. The section 'Does ODB have a MAD/Nuclear Future?' addresses the validity and utility of ODB in the MAD era. The section 'Implications' rigorously re-classifies ODT and pinpoints certain implications for future work. A brief conclusion follows.

## Definitions and Clarifications

### Defining ODT

Perhaps surprisingly, even after three decades of fierce debate and many articles, neither proponents nor opponents of ODT have explicitly defined the theory. Most have never bothered; many have taken it as essentially equivalent to or centred upon ODB.<sup>14</sup> Lynn-Jones and Glaser and Kaufmann meanwhile assert that measuring ODB requires no differentiation of weapons.<sup>15</sup> As will later become clear, however, although measuring ODB does not necessarily depend on the differentiation of weapons, it does depend on differentiation at levels higher than that of weapons, such as military postures. Discussions on ODB inevitably involve differentiation at certain levels.

A brief clarification of these areas<sup>16</sup> makes clear that (orthodox/standard) ODT consists of a body of theories that operate upon two principal propositions (and variables).<sup>17</sup> First, differentiation of weapons and military postures is not only possible but useful (e.g. for understanding the regulation

<sup>14</sup> See for example, Karen Adams, 'Attack and Conquer'; Yoav Gortzak et al., 'Offense-Defense Theory', pp. 67–9; Kier Lieber, 'Grasping the Technological Peace', pp. 71–2; Kier Lieber *War and the Engineers*, pp. 1–2; Stephen Biddle, 'Rebuilding the Foundation', pp. 744–6; and Stephen Van Evera, *Causes of War*, 117, footnote 1.

<sup>15</sup> Sean Lynn-Jones, 'Offense-Defense Theory', 672–7; Sean Lynn-Jones, 'Does Offense-Defense Theory Have a Future?' p. 8; Charles Glaser and Chaim Kaufmann, 'What Is Offense-Defense Balance and How Can We Measure It?' pp. 79–80.

<sup>16</sup> Another divergent point is whether ODT is equivalent to the security dilemma theory. I address this point in section 'Implications'.

<sup>17</sup> Glaser and Kaufmann, and Lynn-Jones came close to the definition advanced here. See, Charles Glaser and Chaim Kaufmann, 'What Is the Offense-Defense Balance and How Can We Measure It?' pp. 47–48; Sean Lynn-Jones, 'Offense-Defense Theory', pp. 665; Sean Lynn-Jones, 'Does Offense-Defense Theory Have a Future?' p. 15, footnote 31. The

**Table 1** Levels of Analysis: Military Power, Strategy, and Outcomes

Physical Components	Strategic Components	Outcomes
Weapons	Military posture/stance	Battle
Arsenals	Military doctrine	Operation
Military capabilities	Military strategy	Campaign
Total war-fighting power	Grand strategy/security strategy	War

of the security dilemma and designing arms control schemes). Second, war and conquest are more likely when offence has, or is perceived to have an objective advantage, and vice versa—that is to say, ODB influences the outbreak of war.

**Levels of Analysis: Military Power and Military Strategy**

Discussions of state military power and (military) strategies within ODT literature and that of broader strategic studies employ several (eight to be exact) different concepts—or more precisely, levels of analysis.<sup>18</sup> Even though each of these concepts might have different meanings for different scholars, authors of these discussions nevertheless neglect to make rigorous definitions of them or to delineate the relationships among them.

It is useful to divide these concepts into two general categories: concepts that denote the physical dimension and those that denote the strategic dimension of a state’s military (see Table 1). From the lowest to the highest level, concepts that denote the physical dimension include weapon, arsenal, military capability, and total war-fighting power. From the lowest to the highest level, concepts that denote the strategic dimension include military posture, military doctrine, military strategy, and (national) grand strategy. As a principle, concepts at the higher level subsume or drive concepts at a lower level. Total power hence subsumes military capability, which in turn subsumes arsenals and weapons. Similarly, grand strategy subsumes and drives military strategy, which in turn both subsumes and drives military doctrine and military posture.<sup>19</sup> In the strategic dimension, because thinking at the higher level drives thinking at a lower level, that at lower level, for

foundation of these two propositions, of course, came from Robert Jervis, ‘Cooperation under the Security Dilemma’, pp. 187–214.

<sup>18</sup> I understand that ‘level of analysis’ in IR is often linked with Waltz’s scheme. I retain this label because I have not been able to find one more suitable. Plus, Waltz does not own ‘level of analysis’. See, Kenneth A. Waltz, *Man, the State, and War* (New York: Columbia University Press, 1959).

<sup>19</sup> Douglas Porch, ‘Military ‘Culture’ and the Fall of France in 1940’, pp. 168–9; Barry Posen, *Sources of Military Doctrine*, p. 7 and Jonathan Shimshoni, ‘Technology, Military Advantage, and World War I’, pp. 187–8. Huntington develops a scheme that includes only four concepts (two each for each dimension): weapons and weapon technologies, military capabilities, military strategy, and political goals His ‘political goals’ is



example posture, can also be understood as a partial indicator of thinking at the higher level, for example, doctrine.<sup>20</sup>

Weapons are simply the equipment possessed by a state's military, and nothing more. If there is a pure technological component within a state's military, the level of weapon is it: Anything above the level of weapon can no longer be purely technological.

A state's arsenal is the total sum of the weapons, rather than a single weapon or random arrays of weapons, that a state deploys. Weapons in an arsenal have been chosen and combined to achieve specific military objectives on the battlefield. Because the choice of weapons within an arsenal and their combination to achieve different military objectives is mostly dependent on human decisions, an arsenal is no longer a purely technological outcome or phenomenon. Military capability is simply the total power of a state's military, or 'the overall size, organization, training, equipment, logistic support, and the leadership of a military force'.<sup>21</sup> A state's total war-fighting power is its latent war-fighting capability, which can be roughly measured according to a state's total gross national product (GNP).<sup>22</sup>

Military posture includes operational doctrines (e.g. operational tactics and operational rules of engagement), patterns of troop deployment (i.e. forward or non-forward deployment), and deployment of weapons.<sup>23</sup>

Military doctrine is 'the way an army organizes to fight, that is, the procedures and methods it applies in combat'.<sup>24</sup> In general, there are two ideal types of military doctrine. They are: offensive doctrine and defensive doctrine, the latter of which includes deterrent doctrine.<sup>25</sup>

Military strategy, also sometimes called military policy, comprises a state's military strategic goals and the means to achieving them.<sup>26</sup> The US 'Fighting

roughly equivalent to grand strategy here. Samuel Huntington, 'U.S. Defense Strategy', pp. 35–7.

<sup>20</sup> I thank Taylor Fravel for this formulation.

<sup>21</sup> Samuel Huntington, 'U.S. Defense Strategy', p. 36. Obviously, a state's military capability is not a purely technological outcome (see below).

<sup>22</sup> John Mearsheimer, *The Tragedy of Great Power Politics* (New York: Norton, 2001), chapter 4. For realists, power is mostly material and it is material power that ultimately decides outcomes in international politics. But see section 'The Objective ODB'.

<sup>23</sup> Douglas Porch, 'Military 'Culture' and the Fall of France in 1940: A Review Essay', *International Security*, Vol. 24, No. 4 (2000), pp. 157–80, at p. 179. Jervis's military stance is close to military posture here. Robert Jervis, 'Cooperation under the Security Dilemma', p. 199.

<sup>24</sup> Douglas Porch, 'Military 'Culture' and the Fall of France in 1940', p. 168. Porch, however, denies that doctrine per se can be differentiated into offensive or defensive. My definition of military doctrine is close to the examples of military doctrines given by Posen. See Barry Posen, *Sources of Military Doctrine*, pp. 14–15.

<sup>25</sup> Glenn H. Snyder, *Deterrence and Defense: Toward a Theory of National Security* (Westport: Greenwood Press, 1961). See also Barry Posen, *Sources of Military Doctrine*, pp. 7, 14–15.

<sup>26</sup> Charles L. Glaser, 'Political Consequences of Military Strategy: Expanding and Refining the Spiral and Deterrence Models', *World Politics*, Vol. 44, No. 2 (1992), pp. 497–538. Glaser seems to take military policy to mean both military posture and military strategy.

and prevailing in two regional wars' and China's 'winning local conflicts under hi-tech circumstances' are examples of states' military strategy.

The concept of grand strategy is perhaps the least ambiguous in the literature under scrutiny. Narrowly defined, grand strategy is a state's security strategy and mostly about military and diplomatic (e.g. alliances) means toward states' security goals. A broader definition of grand strategy is that of the total sum of a state's political, economic, diplomatic and military strategies.<sup>27</sup>

Because part of ODT (especially objective ODB) explains the outcomes of actual military conflicts, it is also necessary to differentiate four levels of analysis of military outcomes. Again from lowest to the highest, they are: operation, battle, campaign, and war.<sup>28</sup>

This clarification is extremely important because many, either unintentionally or otherwise, have conflated various different levels of analysis to support their theses. For example, when arguing against any forms of arms control, Colin Gray asserts, '*Rarely can war be won by defensive strategies alone*'.<sup>29</sup> Such a statement is obviously valid only if 'defensive strategies' means defensive military tactics (i.e. not taking initiatives when trying to defeat the aggressor). When 'defensive strategies' means defensive grand strategies or even defensive military strategies, then a (defensive) war can be won by *defensive* grand strategies with a *defensive* military strategy but under an *offensive* military doctrine.<sup>30</sup>

Elizabeth Kier rejects realism's explanations for the origins of military doctrines and advances a supposedly superior cultural explanation of why Britain and France were unable to adopt an offensive military strategy and grand strategy when Germany did, both post WWI and before WWII. She fails, however, to differentiate the concepts of (grand) strategy and military doctrine and therefore to acknowledge that it is strategy that determines military doctrine rather than the other way around.<sup>31</sup> Kier fails to grasp that because France and Britain were more benign states, they both rationally adopted a defensive grand strategy and a more defensive military doctrine. Hitler's Germany, in contrast, as a state bent on expansionism, adopted an offensive grand strategy and an offensive military doctrine

<sup>27</sup> See, for example, Barry Posen, *Sources of Military Doctrines*, p. 13; Douglas Porch, 'Military Culture and the Fall of France in 1940', p. 168. Robert J. Art, 'A Defensible Defense: America's Grand Strategy after the Cold War', *International Security*, Vol. 15, No. 4 (1991), pp. 5–53, at pp. 6–7.

<sup>28</sup> Stephen Biddle, 'Rebuilding the Foundation of Offense-Defense Theory', p. 747, footnote 8. Glaser and Kaufmann list three levels: strategic, operational, and tactical. See, Charles Glaser and Chaim Kaufmann, 'What is Offense-Defense Balance', pp. 54–5. I believe that Biddle's scheme is more fine-grained and sound.

<sup>29</sup> Colin Gray, *Weapons Don't Make War*, p. 28; emphasis added.

<sup>30</sup> Samuel Huntington, 'U.S. Defense Strategy', p. 37.

<sup>31</sup> Elizabeth Kier, *Imagining War: French and British Military Doctrines between the Wars* (Princeton: Princeton University Press, 1996).



simply because defensive strategies and doctrines cannot conquer.<sup>32</sup> Realism's explanation is hence far more straightforward and convincing than Kier's supposedly superior cultural explanation.

Posen takes military doctrine to include at three aspects: 'its offensive, defensive, or deterrent character; its coordination with foreign policy; and the degree of innovation it contains.' So defined, Posen's military doctrine is far broader than that most authors would agree upon; his definition of military doctrine is closer to military strategy or even grand strategy. But the examples of military doctrines given by Posen are far narrower—they are mostly concerned with the offensive, defensive, or deterrent nature of a state's military doctrine, without any foreign policy input.<sup>33</sup>

Finally, Jonathan Shimshoni fails to appreciate that Jack Snyder's call for NATO to limit offensive conventional forces in the European theatre during the Cold War was actually a call for confidence-building measures at the posture or even doctrine-level and intended to signal moderation and reduce tension between the two opposing camps.<sup>34</sup> Snyder's call was thus a genuine measure of reassurance (see below) and not an ill-advised attempt towards technological fixes for the Cold War.

## Differentiation of Military Postures and Weapons

Differentiation of states' aspects into offensive or defensive types is one of the cornerstones of ODT; without it, the whole ODT enterprise is on shaky ground.

### Differentiation: Logic and Utility

ODT proponents have so far been neither explicit nor consistent on (i) whether the focus of differentiation should be on the physical or strategic components of a state's military, and (ii) whether differentiation should be absolute or relative. Because not resolving these two crucial issues has caused much confusion, this section sets out to resolve them and to underscore the actual value of differentiation.

Weapons occupy the lowest level in the physical component of a state's military, and military postures the lowest level in its strategic component. I first examine the possibility of differentiation at these two levels.

Much of the existing discussion on differentiation has been inexplicit about whether the focus should be on weapons or military postures,

<sup>32</sup> Douglas Porch, 'Military Culture and the Fall of France in 1940', pp. 168–9.

<sup>33</sup> Barry Posen, *Sources of Military Doctrine*, p. 7. Posen provides several examples in pp. 14–15.

<sup>34</sup> Jack Snyder, 'Limiting Offensive Conventional Forces: Soviet Proposals and Western Options', *International Security*, Vol. 12, No. 4 (1988), pp. 48–77; Jonathan Shimshoni, 'Technology, Military Advantage, and World War I', p. 188, footnote 3.

or generally on weapons. I propose that the correct focus is a state's military postures, for two reasons.

First, although certain weapons can indeed be classified as purely offensive or purely defensive when viewed in isolation,<sup>35</sup> most weapons have dual uses. Hence, 'whether a weapon is offensive or defensive often depends on the particular situation . . . the way in which the weapon is used'.<sup>36</sup> Although Lynn-Jones appears to be defending the differentiation of weapons, he does not inform us how weapons might consistently be differentiated as either offensive or defensive.<sup>37</sup>

Second, states deploy arsenals that comprise weapons and weapon systems rather than a random array of weaponry, and generally employ weapons in combination rather than in isolation. This means that (i) offence and defence generally depend upon one another to be effective, and (ii) offensive weapons can be deployed both for defensive support purposes and vice versa.<sup>38</sup> For instance, 'anti-aircraft weapons seem obviously defensive. . . . But the Egyptian attack on Israel in 1973 would have been impossible without effective air defence that covered the battlefield.'<sup>39</sup> To take this point still further, even fortification serves this dual purpose by freeing forces which can then be deployed for offensive purposes.<sup>40</sup>

Consequently, differentiation of weapons into offensive or defensive types is generally difficult or meaningless, even if it is possible.<sup>41</sup> Unsurprisingly, proponents of weapons differentiation themselves mostly talk about matters above the level of weapons or technology. Although when discussing differentiation Jervis puts weapons ahead of (military and political) policies, and is inexplicit about which takes precedence, his discussion nevertheless focuses mostly on military postures (or stances) and policies.<sup>42</sup> Goldfischer's

<sup>35</sup> For example, viewed in isolation, fortification and surface-to-air missiles (SAMs) are almost purely defensive whereas aircraft carriers are almost purely offensive.

<sup>36</sup> Robert Jervis, 'Cooperation under the Security Dilemma', p. 202; Jack Levy, 'The Offensive/Defensive Balance of Military Technology', pp. 225–7; Richard Betts, 'Must War Find a Way?' pp. 185–186; and Samuel Huntington, 'U.S. Defense Strategy', p. 36.

<sup>37</sup> Sean Lynn-Jones, 'Offense-Defense Theory and Its Critics', pp. 674–7.

<sup>38</sup> Jack Levy, 'Offensive/Defensive Balance of Military Technology', pp. 225–7. States of course deploy different arsenals for different military operations. An arsenal for an offensive campaign and strategies will necessarily be different from an arsenal for defensive campaign and strategies. But this does not mean that individual weapons can be differentiated.

<sup>39</sup> Robert Jervis, 'Cooperation under the Security Dilemma', pp. 202–3.

<sup>40</sup> George Quester, *Offense and Defense in the International System*, p. 63.

<sup>41</sup> The fundamental cause behind this difficulty of differentiating weapons has been evolution. Before our ancestors came to confront each other, they had to confront many powerful non-human predators. As such, our ancestors must accumulate some capabilities of killing *even if* they merely want to defend in order to survive. Thus, weapons, from its very beginning as tools of the early humans, have always been of the dual purposes of killing and avoiding being killed. Human beings' carnivorous nature adds another impetus for developing the skill to kill. Robert O'Connell, *Of Arms and Man: A History of War, Weapons, and Aggression* (Oxford: Oxford University Press, 1989), pp. 20–2.

<sup>42</sup> Robert Jervis, 'Cooperation under the Security Dilemma', pp. 199–206.

discussion in defence of differentiating weapons is also mostly about military capabilities.<sup>43</sup> In a discussion in the same vein Van Evera, too, talks about 'modern guerrilla war' rather than weapons.<sup>44</sup> Similarly, Glaser consistently focuses on military strategies and policies rather than on weapons.<sup>45</sup> Finally, even George Quester in his foundational work on ODT discusses mostly military capabilities rather than weapons.<sup>46</sup>

Because most weapons in state arsenals can be employed for both offensive and defensive reasons, even a purely defensive realist state will necessarily deploy offensive weapons and capabilities.<sup>47</sup> Consequently, apart from the fact that differentiation of all the weapons in any arsenal is in any event unrealistic, one cannot identify a state that deploys an offensive weapon—even when that weapon is unequivocally so—as one with offensive intentions. On the other hand, however, although a state's military posture is the lowest denominator in the strategic component of a state's military, it at least partly reflects the state's political thinking behind its potential use of force and hence its intentions. As a result, differentiating a state's military posture into either offensive or defensive (relatively speaking, of course) provides a glimpse into its intentions.<sup>48</sup>

Finally, it should be said that differentiation of military postures can only be relative, simply because all militaries have both offensive and defensive capabilities. Absolute differentiation is impossible other than in extreme situations (e.g. when a state's arsenal contains only tanks). In other words, we can say that one state's military posture is more offensive than

<sup>43</sup> David Goldfischer, *The Best Defense: Policy Alternatives for US Nuclear Security from the 1950s to the 1990s* (Ithaca: Cornell University Press, 1993), chapter 2.

<sup>44</sup> Stephen Van Evera 'Correspondence: Taking Offense at Offense-defense Theory', pp. 195–6.

<sup>45</sup> Charles Glaser, 'Political Consequences of Military Strategy'; Charles Glaser, 'Realists as Optimists'; and Charles Glaser, 'When Are Arms Races Dangerous?'

<sup>46</sup> George Quester, *Offense and Defense*. Quester reiterates this notion in his new introduction to the new edition of his book. George Quester, 'Introduction', in *Offense and Defense in International System*, pp. x–xv.

<sup>47</sup> Stephen Biddle, 'Rebuilding the Foundation of Offense-Defense Theory', p. 769; and Robert Jervis 'Cooperation under the Security Dilemma', pp. 201–3.

<sup>48</sup> Even if states state their military strategy, security strategy, and grand strategies in white papers, they never say that their strategies are offensive or aggressive. Although differentiation can be achieved at all four levels of the strategic component, the higher the level of a component, the more secretive it tends to be. By comparison, military postures—or at least certain components of a state's military posture (e.g. forward or non-forward troop deployment) can be easily observed or more readily spied upon than say, grand strategies and military strategies. Barry Posen, *Source of Military Doctrines*, p. 16. When the ultimate utility of differentiation is for gauging another state's intention or differentiating a malign state from a benign state (see below), military postures should be the correct focus of differentiation. For example, based on open sources, M. Taylor Fravel is able to conclude that China's military posture is largely defensive. Taylor Fravel, 'Securing Borders: China's Doctrine and Force Structure for Frontier Defense', *Journal of Strategic Studies*, Vol. 30, No. 4/5 (2007), pp. 705–37.

that of another state, but we cannot call one state's military posture offensive without a reference point.<sup>49</sup>

## The False Battle over Differentiation

In one of the most systematic defences of ODT, Lynn-Jones correctly points out that although repeatedly denying that weapons can be differentiated, almost all critics of ODT regularly employ the differentiation of military capabilities, military postures, military strategies, and grand strategies to advance their arguments.<sup>50</sup>

For instance, although explicitly denying that conventional weapons can be meaningfully differentiated as either offensive or defensive,<sup>51</sup> Mearsheimer has written a book on conventional deterrence that is nevertheless essentially about how, by adopting certain military postures, one state can deter another from taking offence. Similarly, although Colin Gray also explicitly denies that weapons—including nuclear weapons which are generally understood as the ultimate defensive weapon—can be differentiated, he nevertheless repeatedly talks about offensive and defensive policies and strategies.<sup>52</sup>

Finally, Samuel Huntington is most unequivocal. 'The offence/defence distinction is somewhat more useful when it comes to talking about military capabilities. Here the reference is to the overall size, organization, training, logistic support, and the leadership of a military force. Depending upon how these various elements are combined, some military forces will be better prepared to fight offensive actions, while others will be better prepared to fight defensive actions... The distinction between offence and defence is... applicable to how military can be used—that is to say, to strategy... The offence/defence distinction is also relevant at a higher level of analysis beyond strategy, which is concerned with the overall foreign policy goals of a state and that state's willingness to initiate the use of military force to achieve those goals... [Thus,] useful distinction can be drawn between offensive and defensive policy goals, strategies, and capabilities.' But Huntington is also unequivocally against the differentiation of weapons: '*weapons may be usefully differentiated in a variety of ways, but the offence/defence distinction is not one of them.*'<sup>53</sup>

<sup>49</sup> The fact that military postures can only be differentiated relatively also means that differentiation is an essentially dyadic variable.

<sup>50</sup> Sean Lynn-Jones, 'Offense-Defense Theory and Its Critics', pp. 672–6, footnotes 27, 35, 41 and 44.

<sup>51</sup> John Mearsheimer, *Conventional Deterrence*, pp. 25–7; and John Mearsheimer, *Liddell Hart and the Weight of History* (Ithaca: Cornell University Press, 1988), p. 36, 44, and 61; John Mearsheimer, 'Back to the Future: Instability in Europe after the Cold War', *International Security*, Vol. 15, No. 1 (1990), pp. 5–56, at p. 13, footnote 14. Mearsheimer explicitly states that differentiation is only relevant at the nuclear level (see below).

<sup>52</sup> Colin Gray, *Weapons Don't Make War*.

<sup>53</sup> Samuel Huntington, 'U.S. Defense Strategy', pp. 36–7; emphasis added.

In sum, opponents of ODT have never seriously questioned the fact that military capabilities, military postures, military strategies, and grand strategies can be differentiated into (relatively) offensive or defensive types. It is the differentiation of weapons with which they take issue. Opponents of ODT refuse to accept that, other than perhaps a few, weapons can be differentiated into offensive or defensive types.<sup>54</sup>

Meanwhile, even proponents of ODT often admit that differentiation of weapons is problematic, if not extremely difficult. For instance, Jervis admits, '[No] simple and unambiguous definition [of offensive or defensive weapons] is possible and in many cases no judgment can be reached.'<sup>55</sup> If this is indeed so, opponents and proponents of ODT actually differ little on this particular issue of differentiation of weapons.<sup>56</sup>

Certain proponents of ODT have unfortunately either failed to notice the fact that there is actually little disagreement between them and their opponents on the matter of differentiation of military capabilities, military postures, military strategies, and grand strategies. As a result, they have spent much energy in defending the essentially invalid differentiation of weapons.

Goldfischer offers perhaps the most spirited defence of the possibility of offensive and defensive weapon differentiation. Referring to Huntington's criticism of differentiating of weapons,<sup>57</sup> Goldfischer charges that Huntington ignores weapons: 'Huntington's definition of capability excludes the contribution of particular types of weapons. ('Equipment' seems at best an unnecessary indirect reference to missiles, bombers, tanks, or anti-ballistic missile systems.) That omission allows him to suggest that (presumably as a representative example) the switch from a defensive to an offensive capability can be achieved merely on providing gasoline.'<sup>58</sup>

But Huntington does not deny the contribution of equipment or weapons to military capabilities, and certainly does not suggest that switching from defence to offence can be achieved simply by providing gasoline. Moreover, Huntington is explicit in his assertion that military capabilities (of which weapons are only a part) and other matters on a level higher than military capabilities (e.g. strategies) can be differentiated. Goldfischer thus charges Huntington of a crime he never committed.

## The Real Battle over Differentiation

Many proponents of ODT fail to recognize the real difference between them and their opponents on the differentiation issue, for two reasons. First,

<sup>54</sup> Kier Lieber, *War and the Engineers*, pp. 34–44.

<sup>55</sup> Robert Jervis, 'Cooperation under the Security Dilemma', p. 201.

<sup>56</sup> Defensive realists, of course, have long argued that military doctrines and other strategic components of a state's military can be differentiated into offensive and defensive types (e.g. Charles Glaser 1992; Robert Jervis 1978; Barry Posen 1984, pp. 13–15).

<sup>57</sup> Samuel Huntington, 'U.S. Defense Strategy', pp. 35–7.

<sup>58</sup> David Goldfischer, *The Best Defense*, p. 31.

certain proponents of ODT have emphasized two invalid utilities of differentiation. One is the measurement of (objective) ODB which, in reality cannot be measured even if differentiation of weapons is possible (see section 'The Objective ODB').<sup>59</sup> Second, they have emphasized is the differentiation of weapons which, in reality, cannot be meaningfully differentiated.

The valid utility of differentiation is to serve as part of the foundation for constructing a theory of signalling intentions through military postures (not weapons), especially a theory of signalling benign intentions through defensive military postures. A theory of signalling benign intentions through defensive military postures—which forms an integral part of the defensive realism theory of cooperation-building—critically depends on differentiating military postures into offensive and defensive types.<sup>60</sup> When military postures cannot be differentiated, signalling benign intentions through military postures as advocated by defensive realism becomes very difficult, although not impossible. In contrast, when military postures can be differentiated, signalling benign intentions through military postures as advocated by defensive realism becomes less formidable, although still both costly and risky.<sup>61</sup>

### *Offensive Realism against Differentiation: Unnecessary Offence*

Once we recognize the valid level and utility of differentiation, the real difference between certain proponents of ODT (mostly defensive realists) and opponents of ODT (mostly offensive realists) becomes evident.

Because the whole logic of offensive realism will collapse if cooperation, other than a temporary alliance when facing a common threat, is a viable means of external self-help under anarchy,<sup>62</sup> offensive realists have been trying hard to deny that cooperation is a viable means of external self-help under anarchy.<sup>63</sup> And because defensive realism theory's of cooperation-building partly depends on signaling benign intention with defensive military postures and in turn the possibility of differentiation weapons or postures,

<sup>59</sup> Certain proponents of ODB have argued that differentiation is not necessary for measuring ODT. For my discussion on this point, see footnote 13 above.

<sup>60</sup> I develop reassurance as a defensive realism theory of cooperation-building in Shiping Tang, *A Theory of Security Strategy for Our Time: Defensive Realism* (New York: Palgrave Macmillan 2010), chap. 5.

<sup>61</sup> Signals, whether for resolve or for benign intentions, must be somewhat costly and carry some risk in order to convey true intentions or be considered as credible. Thomas Schelling, *Arms and Influence* (New Haven: Yale University Press, 1966); James Fearon, 'Signaling versus the Balance of Power and Interest', *Journal of Conflict Resolution*, Vol. 38, No. 2 (1994), pp. 236–69; Andrew Kydd, *Trust and Mistrust in International Relations*; Shiping Tang, *A Theory of Security Strategy*, Chapter 5.

<sup>62</sup> Shiping Tang, 'Fear in International Politics: Two Positions', *International Studies Review*, Vol. 10, No. 3 (2008), 451–70.

<sup>63</sup> John Mearsheimer, *Tragedy of Great Power Politics*, pp. 32–6.



offensive realists have sought to undermine the logic of differentiation, thus in turn the possibility of achieving cooperation under anarchy.<sup>64</sup>

Consequently, what offensive realists actually want to deny as regards the problem of differentiating weapons or military postures is not that differentiation is in itself possible, but rather that cooperation under anarchy is actually possible. To achieve this, in addition to denying that there have ever been cases of successful cooperation-building through reassurance and even of signalling benign intentions,<sup>65</sup> offensive realists also wage a two-front assault against the defensive realism logic of cooperation under anarchy.

First, because defensive realists believe that states can achieve cooperation through costly signalling of benign intentions, which partly depends on the differentiation of military postures and weapons,<sup>66</sup> offensive realists argue that such costly signalling of benign intention is difficult to initiate and almost impossible to achieve, even if military postures and weapons actually can be differentiated.<sup>67</sup> This offensive realism stance, however, is logically untenable and empirically false.

Logically speaking, signalling benign intentions is possible whether or not military postures cannot be differentiated. A state can, in principle, signal benign intentions simply by reducing the arms and troops along its border. The problem, of course, is that such a move is so risky that no states would ever try it. Because military postures can always be differentiated relatively, however, states can, if they choose, always signal benign intentions within some acceptable level of risk.<sup>68</sup>

<sup>64</sup> While many offensive realists have been less than explicit in their motives for denying the possibility of differentiation (David Goldfischer 1993, pp. 16, 22, 26–32), at least one of them—John Mearsheimer—has been explicit on this point. John J. Mearsheimer, 'Interview', *International Relations*, Vol. 20, No. 1 (2006), pp. 123, 231–4. Interestingly, Colin Gray, another offensive realist and a prominent critic of ODT, has not only explicitly argued that military postures and policies can be differentiated, but that defensive postures and policies can reassure other states (i.e. 'dampen foreign anxieties') and reduce the chance of inadvertent war (Colin Gray, *Weapons Don't Make War* (1993), p. 22).

<sup>65</sup> Interestingly, some scholars who may be closer to defensive realism engage in this activity. See, for example, David M. Edelstein, 'Managing Uncertainty: Beliefs about Intentions and the Rise of Great Powers', *Security Studies*, Vol. 12, No. 1 (2002), pp. 38–40; Kier Lieber, *War and the Engineers*, p. 5; and Evan Montgomery, 'Breaking out of the Security Dilemma', p. 153.

<sup>66</sup> Robert Jervis, 'Cooperation under the Security Dilemma'; Charles Glaser, 'Realists as Optimists'; Evan Montgomery, 'Breaking out of the Security Dilemma' and Andrew Kydd, *Trust and Mistrust in International Relations*, p. 183.

<sup>67</sup> John Mearsheimer, 'Interview', pp. 123; 231–4. Offensive realists have also waged another assault on the possibility of cooperation under anarchy, arguing that cooperation is difficult to achieve and sustain because of states' concern about relative gains from cooperation. I skip this issue because it is not directly relevant to the discussion here. Moreover, this is a false issue, as Randall Schweller points out. Randall Schweller, 'Neorealism's Status Quo Bias: What Security Dilemma?' *Security Studies*, Vol. 5, No. 3 (1996), pp. 91–121, at pp. 109–10.

<sup>68</sup> Even when military postures can be differentiated, signalling benign intention involves real risk. In fact, a signal of benign intention will not carry any credibility unless it incurs

Empirically speaking, certain statesmen have not only employed the signalling of benign intention but succeeded in obtaining cooperation. For instance, the 1904 *entente cordiale* between Britain and France contributed to the détente between them. Likewise, a series of military confidence-building measures along their long border facilitated a strategic partnership between post-Soviet Russia and China.<sup>69</sup>

Second, because certain defensive realists suggest that signalling benign intentions towards cooperation depends on the differentiation of weapons (and the ODB, see below), offensive realists strive to undermine the logic of signalling benign intention by denying that differentiation of weapons is possible, and by attacking the general validity of ODT (which centres on differentiation and ODB). On this point, the offensive realist stand is certainly valid; weapons often cannot be differentiated.

That weapons generally cannot be differentiated, however, does not undermine the defensive realist logic of signalling benign intentions towards cooperation, because such signalling ultimately depends on military postures (or other strategic military components above that of military posture) and not on weapons, as many defensive realists mistakenly maintain. Moreover, there are means of signalling benign intentions other than that of military postures.<sup>70</sup>

In reality, the offensive realism stand against differentiation (in order to undermine the possibility of signalling benign intentions) is unnecessary. When a state believes that other states are inherently aggressive—whether by nature (as ‘human nature [offensive] realism’ holds it) or compelled by anarchy (as ‘structural offensive realism’ holds it)—and other states are certain to take advantage of your good will, cooperation—barring temporary alliance when facing a common threat—becomes inherently irrational.<sup>71</sup> As such, there is no rationale for seeking cooperation and thus none for signalling benign intentions (through military postures or not), even if both differentiation of postures (or weapons) and signalling benign intentions is possible. The offensive realism assumption that states are aggressive or must be aggressive obviates any need for further arguing that cooperation is risky, because cooperation has already been made logically impossible. Offensive

certain costs to the sender of the signal. For details, see Shiping Tang, *A Theory of Security Strategy*, Chapter 5.

<sup>69</sup> Certain structural realists have thus chosen to ignore these cases of successful cooperation. See, for example, David Edelstein, ‘Managing Uncertainty’, pp. 38–40; and Evan Montgomery, ‘Breaking out of the Security Dilemma’, p. 153. The fact that these cases of cooperation were facilitated by a common threat does not invalidate the notion that costly signalling contributes to cooperation.

<sup>70</sup> I elaborate on these measures in Shiping Tang, *A Theory of Security Strategy*, Chapter 5.

<sup>71</sup> Eric J. Labs, ‘Beyond Victory: Offensive Realism and the Expansion of War Aims’, *Security Studies*, Vol. 6, No. 4 (1997), pp. 1–49, at pp. 4–5, 11; John Mearsheimer, *Tragedy of Great Power Politics*, pp. 2–3, 21. I expose this implicit conclusion or assumption of offensive realism in Shiping Tang, ‘Fear in International Politics’.

realism has been over-pressing their case against the possibility of cooperation under anarchy.

### *Defensive Realists: Wrong and Indefensible Defence*

Because proponents of ODT—many of whom are defensive realists—have so far failed to grasp the valid level (and less often, utility) of differentiation and the real challenge that the offensive realist attack against differentiation poses, they have waged a wrong and indefensible defence against it.

Lynn-Jones, for instance, ignores the all-too-evident political motivation behind the offensive realist attack on differentiation. Although repeatedly pointing out that even opponents of differentiation (mostly offensive realists) consistently differentiate military capabilities, postures and strategies,<sup>72</sup> he is still not prepared to stand up for differentiation of military posture, being more interested in defending the validity of ODB.<sup>73</sup>

Goldfischer recognizes that during the Cold War years many Cold War hawks or offensive realists denied the possibility of differentiating military postures or weapons, either implicitly or explicitly for reasons of arguing against arms control.<sup>74</sup> Believing it would be dangerous for the United States to pursue any kind of cooperation—of which arms control is one form—with the Soviet Union,<sup>75</sup> they maintained that the logic of arms control—which critically depends on the differentiation of weapons—was fundamentally flawed and that any attempt at arms control would hence fail. Goldfischer, however, chooses the indefensible defence of weapons differentiation.

Despite their mistaken convictions as regards the possibility of cooperation under anarchy, offensive realists have been more correct on this point. Goldfischer, heavily influenced as he is by the intellectual legacy of arms control and eager for a technological solution to the problem of war and peace, could not be more wrong.

First, arms control, especially qualitative arms control,<sup>76</sup> depends on the distinguishability of weapons. It is otherwise difficult to determine what types of weapons should be limited, scrapped, or banned.

<sup>72</sup> Sean Lynn-Jones, 'Offense-Defense Theory and Its Critics', pp. 672–676, footnotes 24, 27, 35, 41, and 44.

<sup>73</sup> Lynn-Jones might also have a selfish interest in doing so, as ignoring politics allows him to stick to his thesis that war is the continuation of technology, not politics. On this point, offensive realists know better. See the section on the ODB for details.

<sup>74</sup> David Goldfischer, *The Best Defense*, pp. 16, 20.

<sup>75</sup> See, for example, Colin Gray, *Weapons Don't Make War*, p. 64; Samuel Huntington, 'U.S. Defense Strategy', p. 42; and Albert Wohlstetter, 'The Political and Military Aims of Offense and Defense Innovation', in Fred S. Hoffman, Albert Wohlstetter, and David S. Yost, eds., *Swords and Shields* (Lexington: D. C. Heath, 1987), pp. 5–6.

<sup>76</sup> I thank Evan Montgomery for reminding me about the distinction between qualitative and quantitative arms control. Of course, even quantitative arms control may involve some kind of classification of weapons.

Second, defensive realists have misconstrued the relationship between arms control and cooperation-building by inverting it. Most advocates of arms control believe that arms control causes cooperative relationship, thus essentially calling for a technological fix to adversarial relationships in international politics.<sup>77</sup> Arms control, however, is more likely to be the outcome than the cause of a cooperative relationship. In a confrontational relationship between two states an arms race is probable, but in a cooperative relationship arms reduction or control is far more likely, and each of the two is less concerned about the other's arms build-up.<sup>78</sup> Moreover, arms control is not the best start to a cooperative relationship between two states, because making such demands is more likely to impede than promote trust and cooperation.<sup>79</sup>

By defending the differentiation of weapons, proponents of ODT have waged a wrong and indefensible defence against the offensive realist attack on differentiation. The correct and defensible defence is that as long as military postures can be differentiated, signalling benign intentions through military postures within an acceptable level of risk will be possible.<sup>80</sup> This is where the real utility of differentiating military postures lies.

## The Objective ODB

The ODB can be unpacked into two versions: objective and subjective, each of which has quite different implications: *The objective balance influences the outcome of battle and war; the subjective balance influences the cause and the timing of war and the pattern of alliance pattern before the war breaks out.*<sup>81</sup> In other words, the objective balance influences the outcomes from the interaction of state behaviour; whereas the subjective balance influences state behaviour itself.

So far, both proponents and opponents of ODT have either failed to make an explicit differentiation of these two versions of ODB,<sup>82</sup> or more

<sup>77</sup> Robert Jervis, 'Cooperation under the Security Dilemma', pp. 199–201; Charles Glaser, 'Political Consequences of Military Strategy', Charles Glaser, 'Realists as Optimists', pp. 64–7; and Stephen Van Evera *Causes of War*, pp. 190–192.

<sup>78</sup> Colin Gray makes a similar point, but over-states it. He argues, 'you only get arms control when you don't actually need it'. See Colin Gray, *Houses of Cards: Why Arms Control Must Fail* (Ithaca, NY: Cornell University Press 1992). In my *A Theory of Security Strategy*, Chapter 5, I argue in detail why some forms of arms control can be achieved when needed (i.e. it can facilitate cooperation).

<sup>79</sup> Shiping Tang, *A Theory of Security Strategy*, Chapter 5.

<sup>80</sup> Charles Glaser, 'Realists as Optimists', pp. 68–70; Robert Jervis 'Cooperation under the Security Dilemma', pp. 199–206; Andrew Kydd, 'Sheep in Sheep's Clothing', pp. 143–7; and Evan Montgomery, 'Breaking out of the Security Dilemma', p. 163.

<sup>81</sup> Note, however, that the *ex ante* alliance pattern also influences states' strategies, and hence may in turn influence states' decisions on offence and defence. See Scott Sagan, '1914 Revisited'; Richard Betts 'Must War Find a Way?' pp. 194–5.

<sup>82</sup> See, for example, Karen Adams, 'Attack and Conquer?'; Bernard Finel, 'Taking Offense'; Stace Goddard, 'Taking Offense'; and Stephen Van Evera, 'Correspondence: Taking

commonly, differentiated them but failed explicitly to acknowledge their different implications.<sup>83</sup> Within the existing literature, only Biddle, Lieber and Tang have clearly grasped the different implications of objective and subjective ODB,<sup>84</sup> but their elaborations remain incomplete (see below). Understanding of the balance and its implications is consequently confused.

This section examines objective ODB, which can be further unpacked into two sub-versions. They are: technology-only and technology-plus.<sup>85</sup>

## The Technology-only Version of the Objective Balance: Impossible

The technology-only version of the objective balance is a systemic or structural variable on which to develop a structural theory on the balance and outcome of war.<sup>86</sup> The problem is that it is impossible to operate.

Two pre-conditions are necessary to make a valid examination of the impact a particular weapon or military technology has on the objective balance. The first is that both belligerents in a war must possess either the weapon or the technology.<sup>87</sup> The second is that states possessing the same technology must, or must be assumed to deploy it optimally.<sup>88</sup> Essentially, when measuring the technology-only version of the objective balance, *the*

Offense at Offense-defence Theory'. Karen Adams expands the ODB into offence-defence-deterrence balance, making the balance even more complex. Because the general logic here also applies to her formulation, I do not discuss offence-defence-deterrence balance separately.

<sup>83</sup> See, for example, Richard Betts, 'Must War Find a Way?', p. 180, footnote 17; Thomas Christensen and Jack Snyder, 'Chain Gangs and Passed Bucks'; James Davis, 'Taking Offense', pp. 180–1; James Fearon, 'The Offense-Defense Balance and War since 1648'; Charles Glaser and Chaim Kaufmann, 'What Is the Offense-Defense Balance?'; Yoav Gortzak et al, 'Offense-Defense Theory'; Jack Levy, 'The Offensive/Defensive Balance of Military Technology'; Sean Lynn-Jones, 'Offense-Defense Theory and Its Critics', pp. 666, 670–1, 679–82, footnote 15; Robert Jervis 'Cooperation under the Security Dilemma', pp. 190–4; and Stephen Van Evera, 'Correspondence: Taking Offense at Offense-defence Theory'. Within the existing literature, only Biddle, Lieber and Tang have clearly grasped the different implications of the two versions of the balance.

<sup>84</sup> Stephen Biddle 'Rebuilding the Foundation of Offense-Defense Theory', pp. 744–5; Kier Lieber, 'Grasping the Technological Peace', pp. 73, 102–3; Kier Lieber, *War and the Engineers*, pp. 3–4, 24; and Shiping Tang, 'A Systemic Theory of the Security Environment', pp. 7–8, 28–9.

<sup>85</sup> Charles Glaser and Chaim Kaufmann label these two versions as 'narrow' and 'broad', whereas Lieber labels them as 'core' and 'broad'. See Charles Glaser and Chaim Kaufmann, 'What Is the Offense-Defense Balance?'; Kier Lieber, 'Grasping the Technological Peace'; Kier Lieber, *War and the Engineers*.

<sup>86</sup> Kier Lieber, 'Grasping the Technological Peace', pp. 76–7; and Sean Lynn-Jones, 'Offense-Defense Theory and Its Critics', p. 668.

<sup>87</sup> This point, which should be obvious, is often missing from the existing discussion, or only implicitly spelled out. See, for example, James Fearon, 'The Offense-Defense Balance and War since 1648', p. 6; and Kier Lieber, 'Grasping the Technological Peace', p. 75.

<sup>88</sup> James Fearon, 'The Offense-Defense Balance and War since 1648', pp. 7–8; Stace Goddard, 'Taking Offense', pp. 192–4; and Kier Lieber, 'Grasping the Technological Peace', p. 75. Indeed, without recognizing how demanding this optimality assumption is, Glaser and Kaufmann, both of whom are proponents of ODB, actually employ the optimality assumption to measure the objective balance, even though they favour a broad

human factor in the two sides to a (potential) conflict must be assumed absent, and technologies or weapons to operate independently of human decisions.<sup>89</sup> It is otherwise impossible to state with confidence that a particular technology confers a distinct advantage on either defence or offence. Once we acknowledge that the technology-only version of the objective balance works only under these two stringent conditions, it becomes evident that it is impossible to operate.

To begin with, the technology-only version of the objective balance can be defined as a relative advantage that technology or several technologies confer on offence or defence, and nothing more. Any definition that goes beyond this is not a valid definition of the technology-only version of the objective balance.

Both Lynn-Jones and Lieber favour the technology-only objective balance, but neither makes an accurate definition of it.<sup>90</sup> It is, according to Lynn-Jones, 'the amount of resources that a state must invest in offence to offset an adversary's investment in defence',<sup>91</sup> which implies the need for state decisions or input from human factors, and does not, therefore, assume optimal deployment of technology. Lieber defines the technology-only balance as 'some measures of the relative ease of attacking and taking territory versus defending territory',—a definition that implies the need for a state to make the strategic decision of attacking to occupy territory which, again, does not rule out the human factor.<sup>92</sup>

Second, the first condition makes it apparent that some of the supposed impact of technology upon the technology-only version of the objective ODB is not really the technology's impact on the ODB *per se*, but rather the impact of possessing a lead in technological innovation upon the outcome of war (at different levels). Many of the cases that ODT proponents employ to advance the thesis that conquest is easy when offence is dominant simply reflect the impact upon the outcome of war (at different levels) of possessing a lead in technological innovation, rather than of effecting a change in the technology-only version of the objective ODB *per se*.<sup>93</sup>

(i.e. technology-plus) approach. See Charles Glaser and Chaim Kaufmann, 'What Is the Offense-Defense Balance?' p. 201.

<sup>89</sup> Taylor Fravel raises the possibility that the human factor might have been assumed absent for the sake of theory-building by proponents of ODT. This defence is similar to Jack Snyder's overall defence of ODT, and thus ultimately untenable (see below).

<sup>90</sup> Karen Adams also seeks to measure a technology-only version of the objective balance. I discuss her work in detail below.

<sup>91</sup> Sean Lynn-Jones, 'Offense-Defense Theory and Its Critics', p. 665.

<sup>92</sup> Kier Lieber, 'Grasping the Technological Peace', p. 74. As Finel points out, taking territory is not and should not always be the goal of offences if the goal is to win a war. Bernard Finel, 'Taking Offense', pp. 184–5. Lieber later changes his definition to 'the relative ease of attack and defense given prevailing conditions'. See Kier Lieber, *War and the Engineers*, p. 27. As this is even broader than his original definition, it is again not a technology-only definition.

<sup>93</sup> Both Fearon and Lieber argue that when one state achieves a technological innovation, it represents a change in the balance of power between the state and its potential adversaries,



For instance, guns became suitable for offensive warfare after the breakthrough under Charles VIII in 1494 that made guns standardized, mobile, and easy to fire.<sup>94</sup> But this does not mean that guns in themselves conferred unique advantages on offence when taking into account what would have happened if Charles VIII's enemies had possessed the same type of gun.

Similarly, although the blitzkrieg would have been difficult without tanks,<sup>95</sup> this does not mean that tanks confer a distinctive advantage on offence. Speed, by allowing defence rapidly to respond to a breaching of frontal defences and to close the gap, also confers a distinctive advantage upon defence. As Bernard Brodie says, '...if the French had disposed of a properly concentrated armoured reserve, it would have provided the best means for their cutting off the penetration and turning into a disaster for the Germans what became instead an overwhelming victory.'<sup>96</sup> Hitler's panzer armies initially scored successes until their enemies, notably the Soviet Union, devised effective countermeasures to cut off panzer army advances and prevented their deep penetration.<sup>97</sup>

Understood correctly therefore, many so-called periods of offence or defence dominance were due to the simple fact that a military innovator—a state or a general that developed a new technology or a new approach to deploying existing technologies—enjoyed the typical first-mover's advantage, and had nothing to do with the technology-only version of the objective balance.<sup>98</sup> Because most, if not all, military innovations—whether in technology, deployment of technology, tactics, organization, or doctrine—are not available to every state (otherwise, they would not be called 'innovations'), determining whether an innovation confers inherent advantage on offence or defence is impossible. Without even acknowledging that the objective balance requires both sides of a conflict to possess the same technology, proponents of ODB critically weaken their case by repeatedly talking about technological 'innovations', 'advances', and 'improvements' rather than technology *per se*.<sup>99</sup>

not a change in ODB *per se*. While the first half of their assertion may not be true, the second half is. James Fearon, 'The Offense-Defense Balance and War since 1648', p. 7; and Kier Lieber, 'Grasping the Technological Peace', p. 76.

<sup>94</sup> John Keegan, *A History of Warfare* (London: Verson, 1993), pp. 320–2.

<sup>95</sup> Sean Lynn-Jones, 'Offense-defense Theory and its Critics', p. 676.

<sup>96</sup> Bernard Brodie, *War and Politics* (London: Longman, 1974), p. 325.

<sup>97</sup> Kier Lieber, 'Grasping the Technological Peace', pp. 90–4; and Jack Snyder, 'Perceptions of the Security Dilemma in 1914', in Robert Jervis, Richard Ned Lebow and Janice Stein, eds., *Psychology and Deterrence* (Baltimore: John Hopkins University Press, 1985), pp. 159–60.

<sup>98</sup> Jack Levy, 'The Offensive/Defensive Balance of Military Technology', pp. 230–4. A new and more effective countermeasure against an existing technology is another form of innovation, and should hence again confer first-mover's advantage on the innovator.

<sup>99</sup> See, for example, Charles Glaser and Chaim Kaufman, 'What is Offense-defense Balance?', pp. 62–6; and Stephen Van Evera, 'Correspondence: Taking Offense at Offense-defense Theory', pp. 195–6.

Third, the second condition means that even if the same technology were available to more than one actor, different actors might deploy it in different ways, usually for reasons other than technology. This makes assessing the impact of technology upon offence or defence even more difficult.

For instance, before WWII, tanks were available to both Germany on the one side and France and Britain on the other. But because Hitler wanted expansion and conquest, Germany deployed tanks for offensive purposes, whereas France and Britain, because their purpose was not expansion and conquest, at least not on the European Continent, deployed tanks primarily for defensive purposes. So, does the fact that Hitler's panzer armies initially scored spectacular successes mean that tanks are best deployed as offensive weapons? Hardly so; when in retreat and on the defensive, Germany also deployed tanks as effective weapons for slowing down the allied advance into Germany's heartland.<sup>100</sup>

Fundamentally, the optimality assumption means that the technology-only version of the objective ODB can only be *ex post* and *ad hoc* justifications of what happened in history. One form of deployment of a technology produced a good outcome, and that particular form of technology deployment is hence considered as 'optimal'.<sup>101</sup> But any outcome of wars and battles is surely the result of interaction of states' strategic, tactical, and operational decisions, with technology playing only a small role in shaping the outcome.<sup>102</sup> More often than not, one side's good outcome in wars and battle is due to the fact that the other side made mistakes or simply did not have the power necessary to win.

Indeed, without actually grasping the devastating effect on their optimality assumption of their qualification for measuring objective (technology-plus) ODB, Glaser and Kaufman say that 'the effects of innovation in protection, logistics, communication, and detection are more varied, depending on specific interaction with force behaviour'.<sup>103</sup> This statement is an admission that the optimality assumption usually cannot be operated, and hence nullifies much of their logic for the (technology-plus) objective ODB.

The human factor in war cannot be totally eliminated. As a result, it is either difficult, if not impossible, to assess the impact of a particular technology on either defence or offence, unless dealing with situations in which the human factor is truly marginal (e.g. distance between states).<sup>104</sup>

<sup>100</sup> Kier Lieber, 'Grasping the Technological Peace', pp. 92–3.

<sup>101</sup> Bernard Finel, 'Taking Offense', pp. 185–7.

<sup>102</sup> *Ibid.*, pp. 183–4; and Kier Lieber, 'Grasping the Technological Peace'.

<sup>103</sup> Charles Glaser and Chaim Kaufmann, 'What Is the Offense-Defense Balance', p. 64. Measuring the technology-plus version of ODB will be more difficult than measuring the technology-only version of ODB. See below.

<sup>104</sup> Nationalism may be another factor that confers distinctive advantage on defense, but nationalism is not technology.

The technology-only version of the objective balance, therefore, despite its aura of being both structural and parsimonious, is impossible to measure and has little value for understanding the outcome of war or battle.<sup>105</sup> This is inevitable, because in human society in which human ingenuity rules, a purely technological explanation for the outcome of war cannot be correct.

### The Technology-plus Version of the Objective Balance: Intractable

Because the technology-only version of the objective balance can be of little value for understanding the outcome of war, bringing in the human factor—or taking a technology-plus approach to the objective balance—becomes inevitable if the balance is to remain relevant.

But once we adopt a technology-plus approach, the objective balance becomes profoundly complex, if not totally intractable. Proponents of the objective balance are open to the possibility that different factors, including weapons and technologies, might bring different benefits to offence or defence—however contentious the argument itself may be—as signifiers that the balance can be measured.<sup>106</sup> Such a stand is simply wrong.

For instance, Glaser and Kaufmann raise the five major factors they believe influence the balance and which should hence be incorporated into the technology-plus version of the objective balance. They are: technology, geography, force dimension, nationalism, and cumulative resources.<sup>107</sup> Each of these factors, they argue, can be broken down into several sub-dimensions. For example, geography encompasses cover, movement inhibition and distance. Technology includes mobility, fire-power, protection, logistics, communication, and detection.

The problem is that even if Glaser and Kaufmann were to be correct, and these factors do have different influence on offence and defence, this does not mean that pooling their impact on the objective balance enables the objective balance to be measured. *Intuitively, the exact opposite must be true; it is precisely because so many factors influence offence or defence that*

<sup>105</sup> Lynn-Jones, Lieber, and Tang all favour the technology-only approach almost exclusively on the grounds of retaining its structural and parsimonious nature. Sean Lynn-Jones, 'Offense-defense Theory', p. 666, footnote 15; Kier Lieber, 'Grasping Technological Peace', pp. 75–7; Shiping Tang, 'A Systemic Theory of the Security Environment', pp. 7–8. Earlier, Fearon and Levy also question the feasibility of a structural (i.e. system-wide) ODB. See James Fearon, 'The Offense-Defense Balance and War since 1648', pp. 12–13; Jack Levy, 'The Offensive/Defensive Balance of Military Technology', p. 227.

<sup>106</sup> See, for example, Charles Glaser and Chaim Kaufmann, 'What Is the Offense-Defense Balance?'; Stephen Van Evera, 'Correspondence: Taking Offense at Offense-defense Theory', pp. 195–6; Karen Adams, 'Attack and Conquer?'

<sup>107</sup> Charles Glaser and Chaim Kaufmann, 'What Is the Offense-Defense Balance', pp. 60–8. Glaser and Kaufmann rightly exclude alliance behaviour and first-move advantages from their definition of the broader version of objective ODB.

*it will be extremely difficult to measure the balance, even through the 'net assessment' approach that these two authors propose.*

Take mobility (under technology) for example. Glaser and Kaufmann break mobility down into operational, tactical, and strategic mobility.<sup>108</sup> But even if proponents of the technology-plus version of the objective balance were to agree that operational mobility, tactical mobility, and strategic mobility all favour either offence or defence—a matter upon which proponents of objective ODB have yet to agree, judging from the Glaser and Kaufmann discussion—wouldn't piling up different types of mobility make measuring the impact of mobility upon offence and defence an extremely difficult task?<sup>109</sup> And when the objective balance includes factors other than just mobility, 'a reader would need a cue card just to be able to think about how to apply it [i.e. Glaser and Kaufmann's measurement of the balance]'.<sup>110</sup>

In light of the preceding discussion, it becomes evident that Van Evera's broader approach, which takes balancing behaviour, power, and diplomacy, among other things, as part of the balance, is also not valid. Van Evera's definition of offence dominance as 'when conquest is fairly easy'<sup>111</sup> is flawed, because it 'conflates offence dominance with a host of other variables', thus making a grab bag of the (objective) balance.<sup>112</sup> By any measure, Van Evera has made his version of the ODB equivalent to the whole realist theory of war, or at least made ODB practically indistinguishable from relative power.<sup>113</sup> Van Evera simply includes other realist factors or explanations of war in the objective balance, re-packages them, and claims that the (objective? subjective?) balance is now the 'master key' to understanding war.<sup>114</sup> Unfortunately, his whole theoretical enterprise is built on sand; his definition is flawed, his logic is tautological, and his testing is woefully inadequate (see below).<sup>115</sup>

<sup>108</sup> *Ibid.*, pp. 62–3.

<sup>109</sup> For a summary of the differences among proponents of ODT regarding the impact of mobility on offense or defence, see Kier Lieber, *War and the Engineers*, pp. 35–42.

<sup>110</sup> Richard Betts, 'Must War Find a Way?' p. 186.

<sup>111</sup> Stephen Van Evera, *Causes of War*, p. 118, footnote 2.

<sup>112</sup> Stace Goddard, 'Taking Offense', p. 190. See also James Fearon, 'The Offense-Defense Balance and War since 1648', pp. 7, 14, footnote 29; Bernard Finel, 'Taking Offense', pp. 187–8; and Kier Lieber, 'Grasping the Technological Peace', pp. 75–7.

<sup>113</sup> Richard Betts, 'Must War Find a Way?' pp. 185–90; and James Davis, 'Taking Offense at Offense-Defense Theory', p. 180.

<sup>114</sup> Van Evera was not shy about his achievement: 'Offence-defence theory [which is really offence-defence balance] achieves simplicity, binding together a number of war causes into a single rubric. Many causes are reduced to one cause with many effects.' Stephen Van Evera *Causes of War*, p.190. See also Stephen Van Evera, 'Correspondence', p. 196.

<sup>115</sup> For Van Evera's critics, see Karen Adams, 'Attack and Conquer?', p. 50; Richard Betts, 'Must War Find a Way?', James Davis, 'Taking Offense', Fearon, 'The Offense-Defense Balance and War since 1648', pp. 9–11; Bernard Finel, 'Taking Offense'; and Stace E. Goddard, 'Taking Offense', pp. 189–95.

## The Objective Balance: Where Is the Value?

If broadening the objective balance to include (literally) everything is untenable, the only way of salvaging the objective balance would seem to be that of adopting, as Biddle proposes, a limited technology-plus, or force employment approach, or, as Glaser and Kaufmann propose, a net assessment approach.<sup>116</sup> Both inevitably lead to a dyadic approach to the objective balance which makes a dyadic variable of it.<sup>117</sup>

Although a dyadic approach implies that the objective balance is no longer a master key to understanding war, it potentially retains a certain value for the objective balance if it can produce insights to the potential outcome of war between two states. But even this modest hope might not materialize, because the dyadic approach to the objective balance—even if it could be measured—still faces a major hurdle to an explanation of the outcome of war.

As earlier stated, the objective balance is supposed to affect the outcome of war. If, therefore, the objective balance is to retain any utility for students of international politics it must be able to explain at least partly the outcome of war.

The question hence becomes, even if we can determine the dyadic objective balance between two adversaries before the outbreak of the war through the 'force employment' or 'net assessment' approach, exactly how much value does the balance have for explaining the outcome of the war. In other words, is the objective balance *ex ante* actually that decisive in determining the outcome of a war? The answer is likely to be a firm 'No'.

First, under most circumstances, factors such as relative power, strategy (including alliance strategy), tactics, leadership, organizational learning, and national cohesion are likely to have far more bearing on any assessment of the outcome of a war between two states than that of the objective balance.<sup>118</sup> Glaser and Kaufmann argue that power, military skill, and the (objective) balance can, under certain circumstances, overwhelm one another in determining military capabilities, but it is difficult to see how, unless broadly defined to include relative power and military skill, objective balance can overwhelm power and military skill in any determination of military capabilities. Other than when the balance is defined as inclusive of two items, the two theorists provide no evidence when determining military capabilities that the (objective) balance can overwhelm power and military skill.

<sup>116</sup> Stephen Biddle, 'Rebuilding the Foundation of Offense-Defense Theory', and Charles Glaser and Chaim Kaufmann, 'What Is the Offense-Defense Balance?' pp. 48–51, 57–8.

<sup>117</sup> Stephen Biddle, 'Rebuilding the Foundation of Offense-Defense Theory', p. 743; and Charles Glaser and Chaim Kaufmann, 'What Is the Offense-Defense Balance', p. 57. See also Bernard Finel, 'Taking Offense', pp. 183–4; and Jack Levy 'The Offensive/Defensive Balance of Military Technology', pp. 226–7.

<sup>118</sup> James Fearon, 'The Offense-Defense Balance and War since 1648', p. 31; and Kier Lieber, *War and the Engineers*.

Second, the objective balance cannot possibly remain the same (i.e. static) during the course of a war when the equation includes the human factor.<sup>119</sup> As a result, the balance *ex ante* is of little help in understanding the outcome of a war. For instance, even if the balance *ex ante* favours offence, as soon as the defender learns how to repel the aggressor, its initial *ex ante* advantage is reduced, if not totally neutralized, as the war progresses. Hence, if the defender survives the aggressor's first onslaught<sup>120</sup> it can regroup and mount a more effective defence. As such, the balance *ex ante* does not signify the outcome of the war, and provides the attacker with initial battlefield successes that are not necessarily decisive in determining the war outcome.<sup>121</sup> One example is that of Germany's initial spectacular successes with the *blitzkrieg*, but how, after 1941, 'attackers found that they usually needed a substantial numerical superiority to succeed'.<sup>122</sup> At the start of the war, German U-boats were also extremely successful in attacks on allied convoys, but after the US and British navies had developed more effective anti-submarine defences U-boats became the hunted rather than the hunter and suffered disproportionate losses.

The diffusion of measures and countermeasures during the course of war, therefore, may well neutralize much of the real or imagined 'offensive dominance' enjoyed by the attacker before the war: learning while fighting may be far more decisive in determining the eventual war outcome than the objective balance *ex ante*.

The possibility that even a dyadic approach to the objective balance is of little value in understanding the outcome of war signifies the death knell of the entire objective balance enterprise. If the dyadic balance *ex ante* is not decisive in determining the potential outcome of war, then the entire concept of objective balance loses relevance for IR scholars.

Glaser and Kaufmann indeed unconsciously retreat to this position in proposing the net assessment approach used by military planners to measure the balance,<sup>123</sup> And Biddle's force employment approach also focuses on

<sup>119</sup> Stephen Biddle, 'Rebuilding the Foundation of Offense-Defense Theory', p. 748.

<sup>120</sup> Here, if the attacker can conquer the defender in one stroke, this result must be mostly due to the attacker's overwhelming power versus that of the defender, and not to *offense advantage ex ante per se*.

<sup>121</sup> Richard Betts, 'Must War Find a Way?' p. 173; Stephen Biddle, 'Rebuilding the Foundation of Offense-Defense Theory', p. 748, footnote 9; Kier Lieber, 'Grasping the Technological Peace', and Kier Lieber, *War and the Engineers*.

<sup>122</sup> Jack Snyder, 'Perceptions of the Security Dilemma in 1914', pp. 159–60. See also Kier Lieber, 'Grasping the Technological Peace', pp. 90–6; Kier Lieber, *War and the Engineers*, pp. 101–14; Thomas A. Mahnken, 'Beyond Blitzkrieg: Allied Responses to Combined-Arms Armored Warfare during World War II', in Emily O. Goldman and Leslie C. Eliason, *The Diffusion of Military Technology and Ideas* (Stanford: Stanford University Press, 2003), pp. 243–66.

<sup>123</sup> Charles Glaser and Chaim Kaufmann 'What Is the Offense-Defense Balance', esp. pp. 72–80.



battlefield outcomes.<sup>124</sup> If this were the case, then even if the technology-plus objective balance could be measured through the dyadic net assessment approach that Glaser and Kaufmann propose or the force employment approach as advocated by Biddle, it would still be of little value for understanding the eventual outcome of the war, and hence of little interest to students of IR. The objective balance is actually only important for military planners at the tactical level.<sup>125</sup>

Worse still, the technology-plus objective balance might be of only marginal value even for predictions of the outcome of a single campaign. Erwin Rommel's success for a while in the African theatre, for example, might partially be attributed to his expertise in armour warfare. As soon as the Allies were able to match and overpower his strength, however, the so-called Desert Fox won no more significant victories. Even at the operational level, therefore, the objective balance is only of value for understanding the outcome of a particular battle or operation in which the relative strength of the opposing armies has been largely determined.<sup>126</sup>

## Summary and a Solution

Taken as a whole, the objective balance—even if it can be measured—cannot be a significant factor for explaining war outcomes in history. If objective balance encompasses power, diplomacy and strategy, then the theory which centres upon the objective balance is no longer one of objective balance *per se*, but rather becomes the whole realism grab bag type theory of war. Worse still, even when the objective balance scales down its ambition and becomes a dyadic or state-level theory, it still retains little relevance for IR students.

As such, the objective balance and all theories centred upon it have a bleak future. Jack Levy was still hopeful in 1984 that more work could restore legitimate space for the objective balance and Glaser and Kaufman were still insisting in 1999 that Bernard Finel's call to jettison ODB was premature.<sup>127</sup>

<sup>124</sup> Stephen Biddle, 'Rebuilding the Foundation of Offense-Defense Theory', pp. 747–8; and Stephen Biddle, *Military Power* (Princeton: Princeton University Press, 2005).

<sup>125</sup> Hence, Lawrence Freeman was right to assert that Biddle's *Military Power* offered a theory of battle, not a theory of war. Lawrence Freeman, 'A Theory of Battle or a Theory of War?' *Journal of Strategic Studies*, Vol. 28, No. 3 (2005), pp. 425–35. See also Stephen Biddle, *Military Power: Explaining Victory and Defeat in Modern Battle* (Princeton: Princeton University Press, 2005); Stephen Biddle, 'Rebuilding the Foundation of Offense-Defense Theory', pp. 747–8. Both Glaser and Kaufmann and Lynn-Jones fail to recognize the implication of adopting a net assessment approach to measuring ODB. See Sean Lynn-Jones, 'Does Offense-Defense Theory Have a Future?' esp. pp. 31–4.

<sup>126</sup> Lawrence Freeman, 'A Theory of Battle or a Theory of War?'; Stephen Biddle, *Military Power*; Stephen Biddle, 'Rebuilding the Foundation of Offense-Defense Theory', pp. 747–9. This also explains why Biddle's model can only extremely static.

<sup>127</sup> Jack Levy, 'The Offensive/Defensive Balance of Military Technology', p. 200; Charles Glaser and Chaim Kaufmann 'Correspondence: Taking Offense at Offense-defense Theory', p. 200. Finel, however, is too sweeping in calling all of ODT a 'conceptual

I believe the time has come to declare that any theoretical enterprise centred upon the objective balance does not have a future; objective ODB is a theoretical hoax—an entity that exists only in its proponents' imagination—and no more intellectual resources should be wasted on it.

Finally, there is actually a straightforward solution to taking into account the impact of technology on the outcome of war and battle which does not need objective ODB to operate; it is that of gauging the impact of technology upon the outcome of war and battle according to the level of technological sophistication. Because a state's military power is not only underpinned by its total GNP but also critically determined by its level of technological sophistication, adding the level of technology sophistication to the calculus of war seems a reasonable amendment to the relative power approach. Everything else being equal, the state with the higher level of technological sophistication is more likely to prevail in a battle or a campaign, although level of technological sophistication alone can dictate the outcome of a war. Most important, a state's level of technological sophistication can be both conveniently and objectively measured by its per capita gross domestic product (GDP).

## The Subjective ODB

If objective ODB is a theoretical hoax, then subjective ODB—which requires some sort of objective ODB to operate—from the outset loses much of its validity. Because proponents of ODB might fall back on the contention that statesmen still make their decisions of war based on a rough estimation of ODB, even though ODB cannot be scientifically measured, however, I shall also make a critical examination of subjective ODB.<sup>128</sup>

If the goal is to explain certain aspects of the causes and timing of war, and alliance patterns before war, then the subjective balance, or states' perception of the objective balance—which might or might not reflect the objective reality—might, compared to the objective balance, be on to something. The subjective balance, however, faces two major difficulties.

First, proponents of the (subjective) balance have yet to provide convincing evidence that statesmen indeed do often make judgments of the objective balance. Proponents of ODB have done little more than make this assertion. Lynn-Jones, for instance, asserts that 'the historical record reveals *many* examples of leaders making judgments about the offence-defence balance', citing Jack Snyder, Michael Howard, Van Evera, and

misinformation'. The ODT differentiation of military postures into offensive or defensive types is a valid tool for understanding international politics (see above). Apparently, Finel focuses exclusively on ODB rather than the whole ODT. Bernard Finel, 'Taking Offense', p. 187.

<sup>128</sup> Obviously, the subjective balance cannot be a structural variable.

Thomas Christensen.<sup>129</sup> Apparently, however, all these authors employ WWI as their principal case (see below). Moreover, if the subjective balance is supposed to explain the outbreak of war or statesmen's decisions on war, do statesmen make these decisions based solely on their judgment of the objective balance, assuming that they actually do often make judgments of the objective balance? Or, to put the question less demandingly, does statesmen's judgment of the objective balance actually play an important role, if any role at all, in their decisions on war? The answer is again negative. After studying the decision-making during periods of four major innovations in military technology, Kier Lieber can only conclude that 'concerns about offensive or defensive advantages were overshadowed by more significant and tangible strategic and political factors'.<sup>130</sup>

Second, and more fundamentally, even if statesmen were often to make decisions on war based on their judgment of the objective balance, existing theories centred upon the subjective balance have yet to touch upon the more fundamental aspect of the puzzle; proponents of ODB fail to grasp that the subjective balance, especially states' belief in offensive advantage, is not an independent variable ideal for explaining the cause and timing of war, but rather a dependent variable that itself begs an explanation.<sup>131</sup>

Specifically, if proponents of ODT are indeed correct in the proposition that states are more likely to pursue conquest (or go to war) when offence is perceived to hold advantage, but in history offence objectively has rarely had an overwhelming advantage over defence, as proponents of ODT also claim,<sup>132</sup> why then have so many states pursued conquest and gone to war at all? To argue here that states went to war because they often misperceived the objective balance as offence dominance when it was actually defence dominance (i.e. they believed in the cult of the offensive) is not satisfactory and therefore should not be the end of our inquiry. Instead, we must ask why states have believed in the cult of the offensive in the first place. In other words, we need a theory that explains states' belief in offence dominance.<sup>133</sup>

<sup>129</sup> Sean Lynn-Jones, 'Offense-defense Theory and its Critics', p. 681, footnote 58, emphasis added. It is important to note that a state may believe that an offensive *security/military strategy* or a defensive *security/military strategy* is more conducive to its security, but this belief is fundamentally different from the subjective ODB, and it is inherently tied to of the state's offensive/malign or defensive/benign intentions. I deal with this question in detail elsewhere.

<sup>130</sup> Kier Lieber, *War and the Engineers*, p. 24.

<sup>131</sup> Others have made the same point, although not explicitly and forcefully. Colin Gray, *Weapons Don't Make War*, p. 39; and Jonathan Shimshoni, 'Technology, Military Advantage, and World War I', pp. 197–201.

<sup>132</sup> Jack Snyder, 'Perceptions of the Security Dilemma in 1914', pp. 158–60, 179; and Stephen Van Evera, *Causes of War*, pp. 185, 190–2.

<sup>133</sup> Stephen Van Evera, *Causes of War*, p. 191. Indeed, Van Evera promises to develop such a theory in the next project after *Causes of War*. See, Stephen Van Evera, *Causes of War*, pp. 255–8. Evera also coined the phrase 'the cult of the offensive'. Stephen Van Evera, 'The Cult of the Offensive'.

Intuitively, other than the possibility that states often unintentionally misperceive the balance before going to war and/or pursue conquest as a result of this misperception, or the possibility that states often believe in the cult of the offensive because of military organizations' parochial interests,<sup>134</sup> isn't the argument that states have intentionally chosen to search for, and hence are motivated to believe in, offence dominance simply because they want to expand and conquer on the same scale, equally, if not more, compelling? In other words, could it be that a state's belief in offence dominance is a form of motivated bias driven by its malign intentions and intentional pursuit of offensive capability (or offensive dominance/advantage, if such a thing exists)?<sup>135</sup>

In plain speech, when a state desires conquest and expansion, its expansive goals require that it adopts an offensive military strategy. This is common sense.<sup>136</sup> To support an offensive military strategy, the state must then actively search for technology, and force employment and doctrines that provide it with the offensive capabilities necessary for conquest and expansion. This accomplished, the state will then have more reason to believe in its offensive prowess (or offence dominance as proponents of ODT put it) which brings us to a typical motivated bias driven by wishful thinking.<sup>137</sup>

Here, the case of Hitler and blitzkrieg provide an extremely instructive and not necessarily rare case. That Hitler believed in offence dominance was not by chance but by sworn intention, which was why he set about purposefully rebuilding Germany's offensive prowess. Having set himself an expansionist goal, Hitler then needed to adopt an offensive strategy and an offensive military doctrine because only offence conquers, and Hitler was bent on conquest long before he became convinced of the offensive prowess of tanks and/or blitzkrieg, which did not happen until May 1940 and the invasion of France. It was Hitler's expansionist drive that drove the exploration and adoption of blitzkrieg, and not the other way around.<sup>138</sup> Van Evera inverts the causal link by insisting that Hitler became expansionist only after recognizing the offensive prowess of combined armoured warfare.<sup>139</sup>

<sup>134</sup> Barry Posen, *Sources of Military Doctrines*; Jack Snyder, 'Civil-Military Relations and the Cult of the Offensive', pp. 108–46; and Stephen Van Evera, 'The Cult of the Offensive'.

<sup>135</sup> After all, most of human reasoning is motivated. See, Ziva Kunda, 'The Case for Motivated Reasoning', *Psychological Bulletin*, Vol. 108, No. 3 (1990), pp. 480–98.

<sup>136</sup> Barry Posen, *Sources of Military Doctrines*, p. 69.

<sup>137</sup> Of course, it is entirely possible that the state will then employ its belief in offence dominance to further justify its expansionist goals and strategies. As a result, the belief in offensive dominance and the urge to expand reinforce one other; a typical positive feedback. Likewise, a state's military and military-industrial complex will deploy the belief in offence dominance to further justify a big budget for the former and big (governmental) contracts for the latter. On the second possibility, see, Jack Snyder, *Myths of Empire* (Ithaca: Cornell University Press, 1991).

<sup>138</sup> Kier Lieber, *War and the Engineers*, pp. 100–1.

<sup>139</sup> Stephen Van Evera, *Causes of War*, 123, 175–7. Van Evera might have a case if he insists that recognition of offence advantage might play a role in explaining the timing of war. In fact, judging from the titles of two chapters in Van Evera's book (i.e. 'Jump the Gun' and

Hence, when a state is an expansionist state, it is more likely to pursue offensive capabilities and believe in its offensive prowess. Put it differently, when a state believes in its offensive prowess (or offense advantage/the “cult of the offensive”), that state is likely to be an expansionist state that has been actively searching for offensive advantage and conquest rather than a state that has mistakenly fallen into the trap of the “cult of the offensive”.

WWII might provide another side to the story, whereby belief in defensive dominance signifies a defensive military posture that, in turn, implies a non-expansionist state. Although Britain and France took the offence dominance line in WWI and fought under an offensive military strategy, in WWII they operated a more defensive military strategy, at least compared to that of Germany. Another important reason for this, other than the painful lesson of WWI, might have been that Britain and France had by WWII essentially given up the option of conquest and hence behaved more like non-expansionist states. In WWII, therefore, Britain and France rationally adopted a more defensive military strategy and defensive military doctrine.

So far, few proponents of ODT have explicitly considered this obvious possibility—that grand strategies and politics determine military strategies and capabilities rather than the other way around—although they have often admitted it, almost always casually, in footnotes. Van Evera admits, ‘States may also develop offensive capabilities because they have aggressive aims unrelated to their security requirements’ and ‘national foreign and military policy can shape the offence-defence balance’.<sup>140</sup> Likewise, Lynn-Jones says, ‘There may be considerable truth in the argument that states try to shape the offence-defence balance to create the offensive or defensive advantages that they deem necessary for strategies.’<sup>141</sup> Of course, proponents of ODB may be in self-denial here, because the possibility that the subjective balance might reflect a state’s strategic intention undermines the core ODT logic.

That certain states try to conquer because they are actually aggressive is straightforward and hence more credible than the thesis that states try to conquer because they (erroneously or not) believe in offensive dominance. By taking states’ belief in offensive advantage simply as a misperception and neglecting the possibility that states’ belief in offensive advantage might actually be a reflection of their aggressive goals, proponents of ODT have over-psychologized international politics. As a result, they have dismissed a straightforward political explanation for states’ belief in offensive advantage

‘Windows of Opportunity and Vulnerability’), Van Evera’s discussion was more about the timing of war than its fundamental causes.

<sup>140</sup> Stephen Van Evera, *Causes of War*, p. 117, footnote 1, p. 191.

<sup>141</sup> Sean Lynn-Jones, ‘Offence-defence Theory and its Critics’, p. 690.

(i.e. because states want to expand and conquer) in favour of an indirect and overly psychological—and ultimately flawed—explanation.<sup>142</sup>

## Defending and Testing the Balance

Because ODT proponents hold that ODB is at the heart of ODT, they have spent most of their intellectual capital on shoring up ODB. Yet, ODB and the theories centered upon it actually rest on a shaky foundation. Thus, it is not surprising that ODT has been facing increasingly harsh criticism over the years. Proponents of ODT, and especially of ODB, respond by defending ODB and the theories centred upon it, either by deductive logic or by empirical testing.<sup>143</sup>

## The Indefensible Defence of the Balance

Lynn-Jones raises the most systematic defence of ODT, one that proponents of ODT generally take as sound, if not definitive.<sup>144</sup> It is hence my main target. I also touch upon the defence offered by Glaser and Kaufmann and Van Evera,<sup>145</sup> and show that all three defences are themselves indefensible.<sup>146</sup>

Lynn-Jones argues, ‘Assuming that states prefer to produce security for themselves in the most efficient manner possible, offensive postures will make more sense and states will be more likely to adopt them when there is an offensive advantage, and states will prefer defensive postures when

<sup>142</sup> Richard Betts, ‘Must War Find a Way?’ pp. 169, 176–7, 190; and Scott D. Sagan, ‘1914 Revisited’, pp. 151–75. The other possibility is that states are driven to aggression by the spiral or security dilemma. The debate on the viability of this possibility lies at the heart of the offensive realism versus defensive realism debate. I address the divergence between the two realisms in great detail in Shiping Tang, *Fear in International Politics*, and *A Theory of Security Strategy*, especially Chapters 1 and 4. Here, I merely emphasize that ODT has neglected the possibility that states believe in offensive dominance simply because they want to expand.

<sup>143</sup> In his personal communication with the author, Jack Snyder offered another defence solely on the line of Milton Friedman’s defence of neoclassical economics. Although ODB may not be real, it is a very useful fictional device for understanding war and peace. Such a defence will be rejected by most proponents of ODB, however, because they take ODB precisely as a device that captures something real for understanding war and peace. Moreover, Snyder’s defence has already conceded a lot of territory. For a more detailed discussion on the epistemological issues involved in adopting rational choice approach in political science, see Paul K. MacDonald, ‘Useful Fiction or Miracle Maker: The Competing Epistemological Foundations of Rational Choice Theory’, *American Political Science Review*, Vol. 97, No. 4 (2003), pp. 551–65.

<sup>144</sup> Sean Lynn-Jones, ‘Offense-defense Theory and its Critics’. Glaser and Kaufman claim that Lynn-Jones addressed almost all the major criticisms against ODT. See Charles Glaser and Chaim Kaufmann, ‘What Is the Offense-Defense Balance?’ p. 45, footnote 5.

<sup>145</sup> Charles Glaser and Chaim Kaufmann, ‘Correspondence: Taking Offense at Offense-Defense Theory’, and Stephen Van Evera, ‘Correspondence: Taking Offense at Offense-defense Theory’.

<sup>146</sup> Labs, too, regards Lynn-Jones’s defence of ODT as unconvincing, but does not elaborate. Eric Labs, ‘Expanding War Aims’, pp. 10–11, footnotes 28, 35.



defence has the advantage. Critics of the offence-defence concept adopt precisely this kind of reasoning, even though they claim that the indistinguishability of offensive and defensive weapons makes the offence-defence balance concept useless.<sup>147</sup> Lynn-Jones jumps the gun here. He implies that as long as weapons can be differentiated, the objective balance can be measured. But, as I have earlier shown, even if weapons can be differentiated as offensive or defensive, and certain weapons or technologies bring certain distinct advantages to offence or defence, this still does not mean that the objective balance can be measured.

Second, Lynn-Jones rejects the technology-plus approach to measuring the objective balance in favour of the technology-only approach<sup>148</sup> but fails to acknowledge that neither approach can actually measure the objective balance. He holds that the technology-only approach avoids the problems associated with the technology-plus approach but does not broach the question of how to operationalize the technology-only approach. And at no time does Lynn-Jones raise the question of whether or not the objective balance—even if it could be measured—has any significance for understanding of the outcome of war.

Third, although Lynn-Jones is in favour of the technology-only version of the ODB, he nevertheless defines it in technology-plus terms as, 'the amount of resources that a state must invest in offence (or defence) to offset an adversary's investment in defence (or offence)'.<sup>149</sup> Because investing resources in offense or defense involves political decisions, his definition cannot be a technology-only definition—it certainly does not assume optimal deployment of technologies or weapons. This practice of defining a concept one way and employing it in another enables Lynn-Jones to defend the technology-only version of the balance through the technology-plus version and vice versa, without actually defending either. He hence argues, 'the theory (*properly specified*) argues that at any given time the set of existing and available military technologies determines the relative costs (in terms of defence investments) of offensive and defensive security strategies',<sup>150</sup> without actually explaining how to 'properly specify' the balance and the theory.

Fourth, in response to Mearsheimer's potentially devastating critique of ODB as a theory of foreign policy (i.e. when the explanatory variable is the subjective balance) in which he argues that statesmen seldom calculate war

<sup>147</sup> Sean Lynn-Jones, 'Offense-defense Theory and its Critics', p. 675.

<sup>148</sup> *Ibid.*, p. 668.

<sup>149</sup> *Ibid.*, pp. 665, 674. As Lieber notes, however, this is the most common definition among proponents of ODT. See Kier, *War and the Engineers*, p. 28, footnote 7. Examples of similar definition include Glaser, 'Realists as Optimists', p. 612; Charles Glaser and Chaim Kaufmann, 'What is Offense-defense Balance', p. 49, and Robert Jervis, 'Cooperation under the Security Dilemma', p. 188.

<sup>150</sup> Sean Lynn-Jones, 'Offense-defense Theory and its Critics', p. 674; parenthesis original but italics mine.

with the balance in mind, Lynn-Jones retorts: 'Even if this criticism is true, international outcomes would still be affected by the objective, if unrecognized, offence-defence balance.'<sup>151</sup> Although Lynn-Jones is correct in his assertion that the objective balance (assuming there is such a balance in the real world) influences international outcomes even if it is unrecognized or misperceived, he apparently forgets that he is defending against the charge that the subjective balance cannot be the base of a theory of foreign policy, and not against the charge that international outcomes are not affected by the objective balance.

Fifth, in his defence of the subjective balance as a possible explanatory variable for the causes of war, Lynn-Jones asserts, 'The historical record reveals *many* examples of leaders making judgments about the offence-defence balance,'<sup>152</sup> citing Snyder, Howard, Christensen and Snyder, and Evera.<sup>153</sup> But all the authors he cites employ WWI as their principal case, and relying on a single case for empirical support is insufficient support for the claim that many leaders make war decisions according to their perceptions of the objective balance. It is moreover logically unsound to use WWI as both the source of inspiration and case for testing a theory on the relationship between the (subjective) ODB and war.<sup>154</sup>

Sixth, Lynn-Jones fails to appreciate the fundamental challenges posed by the theses that the political intentions and goals of states are more important than the (subjective) ODB when it comes to shaping decision-makers' decisions of war, and that the (objective) ODB is not an exogenous variable but is instead shaped by states' attempts to devise strategies and to create technological and other advantages that will serve their strategic goals.<sup>155</sup> The two theses are two sides of the same coin showing that ODB, whether objective or subjective, is not an exogenous but an endogenous variable that is constantly shaped by strategy, tactical innovation, organizational innovation, and technological innovation.<sup>156</sup> If this is indeed the case, it is hard to

<sup>151</sup> *Ibid.*, p. 681, footnote 58. See also *ibid.*, pp. 679–80.

<sup>152</sup> *Ibid.*, p. 681, footnote 58; emphasis added.

<sup>153</sup> Jack Snyder, *Myths of Empire*; Michael Howard, 'Men against Fire: Expectations of War in 1914', *International Security*, Vol. 9, No. 1 (1984), pp. 41–57; Stephen Van Evera, 'The Cult of the Offensive', and Thomas Christensen and Jack Snyder, 'Chain-gangs and Passed Bucks'.

<sup>154</sup> Richard Betts, 'Must War Find a Way?' p. 184; James Fearon, 'The Offense-Defense Balance and War since 1648', pp. 2–3, 21; Yoav Gortzak et al., 'Offense-defense Theory', pp. 70–1.

<sup>155</sup> Indeed, Lynn-Jones put the two theses under two different subsections in his article. Sean Lynn-Jones, 'Offense-defense Theory and its Critics'. These criticisms were raised by Colin Gray, *Weapons Do not Make War*, p. 39; Samuel Huntington, 'U.S. Defense Strategy', p. 37; Robert Jervis, 'Realism, Game Theory, and Cooperation', *World Politics*, Vol. 40, No. 4 (1988), pp. 317–49, at p. 344; Robert O'Connell, *Of Arms and Man*; and Jonathan Shimshoin, 'Technology, Military Advantage, and World War I', pp. 197–201.

<sup>156</sup> James Fearon, 'The Offense-Defense Balance and War since 1648', pp. 8–10; Kier Lieber, *War and the Engineers*; and Jonathan Shimshoni, 'Technology, Military Advantage, and World War I'. Fearon and Lieber's understanding is only half-way there because they still

assess statically and in isolation the impact of ODB on the outcome of war and the decisions states make on war.

Finally, proponents of ODB also defend the utility of ODB on the grounds that it is structural and hence parsimonious.<sup>157</sup> Having thoroughly debunked the possibility of a structural ODB—if structural is to mean system-wide or beyond the dyadic level,<sup>158</sup> I now focus on the supposed parsimony of ODB.

It is evident that the apparent parsimony of Van Evera's ODB—whether objective or subjective—lies in the way in which the balance is defined, and nothing more. When the balance is defined, 'offence is dominant when conquest is fairly easy',<sup>159</sup> it can indeed give a parsimonious explanation of the outcome of war. Unfortunately, this supposed parsimony is due entirely to the fact that this definition constitutes a tautological explanation of war outcomes.<sup>160</sup> Van Evera is correct in arguing that although his ODB is not parsimonious this does not necessarily mean that his theories centred upon it are not,<sup>161</sup> but he nevertheless has no defence against the charge that his explanation is tautological. The realist thesis that relative power determines conflict outcomes does not define 'more power' as 'the power possessed by the winning side in the conflict' and go on to argue that it is relative power that determines a conflict's outcome.

Van Evera is also free to argue that because ODB is not parsimonious this does not mean that the theories centred upon it cannot be, because many central concepts in IR theory, such as power, are also hard to measure.<sup>162</sup> But unless Van Evera is willing to give up his claim that ODB is a better variable than relative power and a host of other variables,<sup>163</sup> he should refrain from making bold claims about ODB's utilities and admit that, as regards explanatory power, ODB may not after all be appreciably superior to relative power.<sup>164</sup>

believe that states merely adopt existing technologies, rather than strive to invent technologies for strategic purposes.

<sup>157</sup> Stephen Van Evera, 'Correspondence: Taking Offense at Offense-defense Theory', p. 196; Charles Glaser and Chaim Kaufmann, 'Correspondence: Taking Offense at Offense-Defense Theory', p. 200.

<sup>158</sup> See the preceding discussion. See also Stephen Biddle, 'Rebuilding the Foundation of Offense-Defense Theory', pp. 741–74; James Fearon, 'The Offense-Defense Balance and War since 1648', pp. 8–9, 12–13.

<sup>159</sup> Stephen Van Evera, *Causes of War*, p. 118, footnote 2.

<sup>160</sup> James Fearon, 'The Offense-Defense Balance and War since 1648', p. 9. Karen Adams avoids this problem of being tautological by measuring ODB using pre-selected indicators of weapon technologies *before* a period of war and then uses the ODB to explain war and outcome of war. But her empirical testing suffers from other problems. See the discussion on Adams's work below.

<sup>161</sup> Stephen Van Evera, 'Correspondence: Taking Offense at Offense-defense Theory', p. 196.

<sup>162</sup> *Ibid.*, p. 196.

<sup>163</sup> Stephen Van Evera *Causes of War*, p. 117, footnote 1.

<sup>164</sup> Richard Betts, 'Must War Find a Way?' p. 187.

## Empirical Testing of the Balance

The objective balance being hard to measure and of little value for determining the outcome of the war on one hand, and the impact of subjective balance upon states' decisions of war not being correctly recognized on the other, attempts to test the impact of ODB have failed to produce conclusive evidence, and tests that do reveal supporting evidence for ODB do not stand up to closer scrutiny.

### *The Weight of WWI*

Certain earlier works on ODB and war generally develop hypotheses about ODB and war but do little actual testing.<sup>165</sup> Others test hypotheses in support of their claim that ODB is a powerful cause of war using WWI as the main case.<sup>166</sup> WWI is thus the linchpin case in support of subjective ODB as an explanatory variable for the causes of war. Consequently, if we can show that WWI does not support the case of subjective ODB, subjective ODB will lose much of its credibility as explanatory variable for the outbreak of war.

In his explanation of the origins of WWI, Van Evera coins the phrase 'the cult of the offensive' and advances the thesis that it was a major cause of WWI.<sup>167</sup> But in trying to bolster his thesis on the causes of WWI, Van Evera (and to a lesser extent, Jack Snyder) actually amasses overwhelming evidences that it was states' aggressive intentions rather than their belief in the cult of the offensive that was the cause of the war, the cult having actually acted merely to accelerate the crisis that eventually led to the war.

For instance, Van Evera asserts, 'The logic behind Germany's expansionism, in turn, rested on two widespread beliefs which reflected the cult of the offensive: first, that German security required a wider empire; and second, that such an empire was readily attainable, either by coercion or conquest.'<sup>168</sup> The second belief might indeed have something to do with 'the cult of the offensive', but the first belief bears little relation to it, rather simply reflecting Social Darwinism and imperialism, the two quintessential offensive realism beliefs of that time.<sup>169</sup> Van Evera, however, never seriously

<sup>165</sup> Charles Glaser and Chaim Kaufmann, 'What Is the Offense-Defense Balance?'; Robert Jervis, 'Cooperation under the Security Dilemma'; and George Quester, *Offense and Defense in the International System*.

<sup>166</sup> Stephen Van Evera, *Causes of War*. Here, I do not raise the logic problem that Van Evera employs WWI as both an inspiration for his theory and a testing case for his theory. See above.

<sup>167</sup> Stephen Van Evera, 'The Cult of the Offensive'; Stephen Van Evera, *Causes of War*, chapter. 7.

<sup>168</sup> Stephen Van Evera, 'The Cult of the Offensive', p. 65.

<sup>169</sup> Thus, German Chief of Staff Helmut Von Moltke's motto that 'the offence is the best defence' is identical to Mearsheimer's teaching that 'the best defence is a good offence'. Moltke quoted in Stephen Van Evera, 'The Cult of the Offensive'; p. 59; John Mearsheimer, *Tragedy of Great Power Politics*, p. 36. More importantly, social Darwinism and imperialism was upheld not just in Germany but almost every European

considers this possibility. Moreover, by asserting that it was the cult of the offensive that caused expansionism rather than the other way around,<sup>170</sup> Van Evera essentially excludes politics from the matter of war and peace in favour of a technology-centric or psychological approach. Finally, even if the cult of the offensive did play an important role in driving the spiral that eventually led to WWI, this war should be considered as a unique case in which the cult was important and not as a wide foundation for erecting a whole theoretical edifice of ODB and war that claims to have universal application.

Most devastatingly, recent scholarship undermines the last shred of credibility of the notion that the cult of the offensive was a major cause of WWI. As Lieber points out, recent WWI historiography reveals that the main German decision-makers, from Moltke to Schlieffe, did not actually believe in the cult of the offensive.<sup>171</sup> Rather, Germany's high commanders worked hard to circumvent the inherent difficulties posed by a frontal assault.<sup>172</sup> This being the case, the sole case supposedly citing subjective ODB as a major cause of war evaporates in the face of history.

### Recent Empirical Tests

Lieber takes a qualitative approach to testing ODT's two core theses, mobility-enhancing technologies favour offence and firepower-enhancing technologies favour defence.<sup>173</sup> Although Lieber raises damaging evidence against ODT, he does not directly test ODB *per se*. His study is hence susceptible to counterattack by proponents of ODB, who say that he targets the wrong independent variable. They can also easily deflect Lieber's criticism by arguing that ODB does not depend on the two theses, and that even if they are invalid and that ODB can be salvaged by reformulation and reinvention.<sup>174</sup>

capital. Stephen Van Evera, 'The Cult of the Offensive', pp. 62–3. This could only make WWI more likely.

<sup>170</sup> Stephen Van Evera, 'The Cult of the Offensive', p. 65.

<sup>171</sup> Kier A. Lieber, 'The New History of World War I and What It Means for International Relations Theory', *International Security*, Vol. 32, No. 2 (2007), pp. 155–91. Jack Snyder challenges Lieber's conclusion on defensive realism but essentially concedes on the empirical battleground. See Jack Snyder and Kier A. Lieber, 'Correspondence: Defensive Realism and the 'New' History of World War I', *International Security*, Vol. 33, No. 1 (2008), pp. 174–85. In Shijing Tang, *A Theory of Security Strategy*, Chapter 3 and Appendix 1, I contend that defensive realism remain unscathed even though, and precisely because, WWI was not caused by a security dilemma.

<sup>172</sup> Jin Xu, 'The Cult of the Offensive: The Collapse of a Theoretical Myth', *Shijie Jingyi yu Zhengzhi* [World Economics and Politics], No. 2 (Feb. 2010), pp. 83–100.

<sup>173</sup> Kier Lieber, *War and the Engineers*.

<sup>174</sup> Indeed, when responding to Mearsheimer and other offensive realists' criticism that weapons cannot be meaningfully differentiated into offensive or defensive weapons, Lynn-Jones defends ODB with a similar logic: 'ODT [he means ODB] does not depend on the idea that individual types of weapons be classified as either entirely defensive or entirely offensive'. See, Sean Lynn-Jones, 'Offense-defense Theory and Its Critics', p. 674; see also p. 663.

Four studies take a more quantitative approach to test the orthodox ODT thesis about the relationship between ODB and war.<sup>175</sup>

Among them, Fearon's work is the simplest but provides interesting evidence against the orthodox thesis on ODB and war. Fearon shows that although major power wars between 1648 and 1789 were more frequent (0.14 wars per year) they were also very long (four years on average). According to the standard thesis on ODB and war, therefore, this period should be considered as subjectively offence dominant but objectively defence dominant. During the period 1815–1913, major power wars were far less frequent (0.04 wars per year), but usually very short (0.4 years on average).<sup>176</sup> According to the orthodox thesis on ODB and war, therefore, this period should be considered as subjectively defence dominant but objectively offence dominant (Fearon 1997, 39<sup>177</sup>). This conclusion contradicts the orthodox ODT thesis that many European states took part in WWI because they erroneously believed in offence dominance when it was actually a war of defence dominance. It would now appear that these states were actually correct in following the offence dominance line!<sup>178</sup>

Biddle's work correctly recognizes the different implications of the two version of the balance and, unsurprisingly raises evidence that contradicts the orthodox ODT thesis on objective ODB and outcome of war. Biddle also (correctly) argues that objective ODB has to be a dyadic variable and is only meaningful for understanding outcomes at the operational level (battle or operation). Biddle hence does not focus on the outcome of war but rather on outcome of battles. But because he does not directly test objective ODB and outcome of war, his study is susceptible to counterattack by proponents of ODB that he raises the wrong dependent variable.

Although the study by Gortzak and his colleagues reveals damaging evidence against the orthodox thesis on ODB and war, it is nevertheless flawed because it does not acknowledge the different implications of the two versions of the balance. Gortzak and his colleagues explicitly tested both the objective and subjective balance against outbreaks of war and militarized interstate disputes, when in reality, only the subjective balance should be tested against these two dependent variables. Moreover, in addition to testing the explanatory power of the subjective balance one should also test

<sup>175</sup> Karen Adams, 'Attack and Conquer?'; Stephen Biddle, 'Rebuilding the Foundations of Offense-Defense Theory'; and James Fearon, 'The Offense-Defense Balance and War since 1648'; Yoav Gortzak et al., 'Offense-defense Theory'.

<sup>176</sup> This result is also consistent with Biddle's thesis that 'progressive advances in technology over time increase the extremity of both offensive success and failure'. Stephen Biddle, 'Rebuilding the Foundations of Offense-Defense Theory', p. 758.

<sup>177</sup> James Fearon, 'The Offense-Defense Balance and War since 1648', p. 39.

<sup>178</sup> Christensen and Snyder concur with this interpretation. Thomas Christensen and Jack Snyder, 'Chained Gangs and Passed Bucks', p. 145. Of course, this begs the question of how the objective balance changed from offence dominance to defence dominance in a single year (i.e. 1914)!



against other political factors, the most important of which is states' intentions, or whether one or both sides of the conflict are offensive realist states. This variable, however, is missing in the study by Gortzak and his colleagues.

In sum, the existing tests of ODT with a quantitative approach (i) did not directly test ODT hypotheses regarding ODB and war; (ii) did not properly test ODT hypotheses; (iii) provided only inconclusive evidence on regarding the ODT hypotheses; and (iv) contradicted the ODT hypotheses. I next focus on Karen Adams's work, which claims to provide strong empirical support for the orthodox thesis on ODB and war.<sup>179</sup>

Adams tests the objective balance against both conquest and attack. As earlier pointed out, the objective balance can be tested against conquest (i.e. outcomes of war), but not attack (i.e. states' decisions on war), which can be explained only by employing the subjective balance. Adams' testing of the objective balance and the cause of war is hence invalid owing to her apparent absence of understanding of the different impacts of the subjective and objective balance. Worse still, her testing of the objective balance and the outcome of war (i.e. conquest), which superficially reveals that conquest is easier when offence is (objectively) dominant, does not stand up to close scrutiny.

Adams strives towards a technological (and system-wide) version of the objective balance, but in defining ODB as 'the relative efficacy of offence, defence, and deterrence given prevailing conditions',<sup>180</sup> she assumes optimality only, and not that both combatants possess the same technology. As a result, many of the so-called offence and defence dominance periods she raises are no more than outcomes of one side having better technology, or having better deployed technology, than the other. In other words, these so-called offence or defence dominance periods are the outcomes of technological and organizational innovations.

Second, although citing Biddle, Adams ignores an almost insurmountable obstacle to measurement of a systemic technology-only ODB. Biddle points this out in his observation that certain weapons or technologies might have impact on firepower, mobility, and force protection.<sup>181</sup> Under these circumstances, therefore, how is it possible to measure technology-only ODB?

Third, Adams' results seem to show that conquests are indeed easier when offence has the advantage, and hence vindicate the orthodox thesis on ODB and war. But her results collapse upon close examination.

<sup>179</sup> Karen Adams, 'Attack and Conquer?', pp. 48, 78–9.

<sup>180</sup> Karen Adams, 'Attack and Conquer?', p. 50. This definition is almost identical to Lieber's definition. See Kier Lieber, *War and the Engineers*, p. 27.

<sup>181</sup> Karen Adams, 'Attack and Conquer?', pp. 50–2. See also Stephen Biddle, 'Rebuilding the Foundations of Offense-Defense Theory', p. 747, footnote 7.

Adams shows that during the 1800–1849 period of supposedly offence dominance,<sup>182</sup> France conquered Austria (1805), Prussia (1806), and Spain (1808), but was itself twice conquered, in 1814 and 1815, by two different coalitions, Prussia and Britain being the two most important allies in both coalitions. As war outcomes during this entire period of offence dominance were totally different, they cannot be attributed solely to the ODB. The same can be said of the period 1933–1945, which Adams also codes as a period of offence dominance, during which Germany conquered France but was later conquered by the coalition consisting of the United States, the Soviet Union, and Britain.<sup>183</sup> Adams' results also imply that more capable powers are less vulnerable to conquest and more likely to attack other great powers.<sup>184</sup>

Taken together, these results seem to show that relative power (including the relative power between two opposing alliances) is far more decisive in determining the outcome of the war than the (objective) balance, just as critics of ODT predict.<sup>185</sup> These results are hence of no help at all to the case for ODB, because Adams's claim that objective ODB is a major determinant of war outcomes cannot be substantiated.

## Does ODB have a MAD/Nuclear Future?

Having clearly established that ODB, whether objective or subjective, holds little promise for explaining the outbreak and outcome of war in the conventional (i.e. pre-nuclear) age, we now examine whether or not ODB plays a role in explaining war and peace in the nuclear age. A negative finding on this front will further undermine the already severely weakened claim that ODB is a major factor in understanding the outbreak and outcome of war.

On the surface, it seems that ODB proponents have an easy case in the nuclear age. Have nuclear weapons not overwhelmed relative power, strategy, and others, giving defence/deterrence an insurmountable advantage?<sup>186</sup> This, after all, is what Bernard Brodie wanted to convey when he called nuclear weapons 'the ultimate weapon'.<sup>187</sup>

<sup>182</sup> Since we are dealing with the non-nuclear era here, we can for now safely ignore the deterrence component within Adams's formulation.

<sup>183</sup> Karen Adams, 'Attack and Conquer?', p. 68, table 3.

<sup>184</sup> *Ibid.*, p. 73.

<sup>185</sup> James Fearon, 'The Offense-Defense Balance and War since 1648', p. 31; Kier Lieber, *War and the Engineers*, p. 24.

<sup>186</sup> Most IR students take deterrence as a specific form of deterrence, and 'in the nuclear context, deterrence by retaliation is the functional equivalent of defence'. Glaser, 'When Are Arms Races Dangerous?', p. 75. See also Robert Jervis, 'Cooperation under the Security Dilemma', p. 198. For dissension, see Karen Adams, 'Attack and Conquer'. For the original differentiation of deterrence by punishment versus deterrence by denial, see Glenn H. Snyder, *Deterrence and Defense* (Princeton: Princeton University Press, 1961).

<sup>187</sup> Bernard Brodie et al., *The Ultimate Weapon* (New York: Harcourt, Grace, 1946). The connection between ODT and nuclear deterrence theory (and the Cold War) has been evident. For earlier discussions, see Richard Betts, 'Must War Find a Way?', pp. 176–82;

For most political scientists, the coming of nuclear weaponry symbolizes a fundamental revolution in states' calculation of war, hence the 'nuclear revolution'.<sup>188</sup> Most ODT proponents have embraced the nuclear revolution, contending that it has decisively shifted ODB to defence/deterrence dominance. According to Jervis, 'Concerning nuclear weapons, it is generally agreed that defence is impossible, a triumph not of the offence, but of deterrence.' For Glaser, 'Nuclear weapons created a revolution for defence advantage.' For Van Evera, 'after 1945, thermonuclear weapons restored the power of the defence, this time giving it an overwhelming advantage', and for Adams, 'deterrence was dominant after 1946'.<sup>189</sup> More important, without a single exception, all of ODT's proponents contend or at least imply that the fact that the nuclear revolution has decisively shifted ODB to defence/deterrence dominance strongly supports ODB (and ODT in general).

Even ODT opponents have given ODT, especially ODB, the nod when it comes to the nuclear revolution. James Fearon argues that because nuclear weaponry is the ultimate defence weapon it may be that upon which objective ODB can be operated.<sup>190</sup> Even John Mearsheimer, a fierce critic of the ODT stand on the differentiation of weapons, explicitly states that both differentiation of weapons and ODB are (only) relevant at the nuclear level.<sup>191</sup> ODB thus seems to own the MAD/nuclear revolution. But does it?

and Kier Lieber, *War and the Engineers*, pp. 123–5. The fact that ODT (and ODB in particular) did not come into force after the nuclear deterrence theory even though the original ideas of ODT can be traced back to the 1932 World Disarmament Conference also points to a connection between ODT and nuclear deterrence theory. On this aspect, see Stephen Van Evera, *Causes of War*, 118–19.

<sup>188</sup> Before we go further, let us be clear what we mean by 'nuclear revolution'. The nuclear revolution is really the coming of MAD as reality and the total annihilation of humanity as a real possibility. Hence, the nuclear revolution is not purely about the coming of nuclear weapons alone; only the coming of nuclear weapons and ICBM together—and thus MAD—makes the nuclear revolution complete. It is only with ICBM that viable defence against devastating retaliatory strikes by one's opponent becomes impossible, MAD assured, and the nuclear revolution complete. It is thus at least imprecise and misleading to take the nuclear revolution as the coming of nuclear weapons alone. The nuclear revolution is more accurately labelled as 'the MAD revolution'. I retain the term 'nuclear revolution' because it has gained currency. I also retain the term 'nuclear weapons' when it comes to quotations from others. On the nuclear revolution, see Robert Jervis, *The Meaning of the Nuclear Revolution: Statecraft and the Prospect of Armageddon* (Ithaca: Cornell University Press, 1989); Michael Mandelbaum, *The Nuclear Revolution: International Politics before and after Hiroshima* (Cambridge, Cambridge University Press, 1981). For dissensions, see Paul Nitze, as quoted in Gregg Herken, *Counsels of War* (New York: Knopf, 1985) and Colin S. Gray, 'Nuclear Strategy: The Case for a Theory of Victory', *International Security*, Vol. 4, No. 1 (1979), pp. 54–87. For criticism of this 'conventionalization' of nuclear weapon, see Robert Jervis, *The Illogic of American Nuclear Strategy* (Ithaca: Cornell University Press, 1984), pp. 56–63.

<sup>189</sup> Robert Jervis, 'Cooperation under the Security Dilemma', p. 198; Charles Glaser, 'When Are Arms Races Dangerous?' p. 75; Stephen Van Evera, *Causes of War*, 162; Karen Adams, 'Attach and Conquer', p. 54.

<sup>190</sup> James Fearon, 'The Offense-Defense Balance and War since 1648', pp. 31–2.

<sup>191</sup> John Mearsheimer, *Conventional Deterrence*, pp. 25–7; and John Mearsheimer, *Liddell Hart and the Weight of History*, pp. 36, 44 and 61; John Mearsheimer, 'Back to the Future', p. 13, footnotes 14, 19–20.

If the MAD/nuclear revolution is a genuine revolution, then there are essentially two ways in which ODB (and ODT in general) can accommodate it. The first is to argue that ODB logic applies in both the pre-MAD/nuclear (i.e. conventional) age and the MAD/nuclear age, even though the MAD/nuclear revolution is a genuine revolution. This is Van Evera's stand. He argues that ODB explains a large chunk of history, at least from 1789 to the present if not since ancient Greece and China.<sup>192</sup>

Unfortunately, this claim, although attractive for sustaining the ODB claim to be a good or even a master theory of war, holds little promise. As earlier shown, ODB, whether in its objective or subjective version, has limited explanatory power for explaining the conventional age, which occupies most of human history. This fact limits the ODB explanatory domain<sup>193</sup> and also—and more fundamentally—implies the possibility that the ODB could be inherently flawed. Epistemologically, when a body of theories which claims to explain all history cannot actually explain a large chunk of it, that body of theories needs to be seriously questioned, if not ultimately rejected.

The second solution is to retreat and admit—in light of the earlier discussion—that the logic of ODB applies only to the nuclear age. Essentially, ODB proponents claim that it is a good theory for understanding nuclear peace in the MAD/nuclear age, but not the ravages of the conventional age. Nuclear weaponry is a defensive/deterrent weapon and has shifted ODB to an overwhelming defence/deterrent advantage. Taking this way out already significantly weakens the ODB claim to be an important factor for understanding war and peace. But it gets worse.

To begin with, nuclear weaponry *per se* is not a defensive weapon. Rather, a state that holds the monopoly of nuclear weaponry as a technological innovation enjoys an enormous advantage in taking the offensive. When the United States alone had nuclear weapons, it used them for offensive military purposes (even though it was fighting a defensive war against Japan)—to compel Imperial Japan into unconditional surrender. The United States also attempted to compel other non-nuclear states to back off, as it faced China during the Korean War (1950–1953) and the Quemoy-Matsu crises (1954 and 1958), and North Vietnam/China during the Vietnam War (1968–1974). Likewise, the Soviet Union also attempted to compel a nuclear China that had limited delivery (thus retaliatory) capabilities to back off in the late 1960s. Standing alone, therefore, nuclear weaponry—with its enormous destructive power—is more like an offensive weapon.<sup>194</sup>

<sup>192</sup> Stephen Van Evera, *Causes of War*, pp. 185–92.

<sup>193</sup> A general theory is undermined somewhat by exceptions, although not fatally if it can still cover most empirical facts (i.e. exceptions are few). This is not the case for ODB, however.

<sup>194</sup> Kier Lieber, *War and the Engineers*, pp. 123–8.

Going one step further, imagine what could have happened if Hitler had been the first to have a monopoly on nuclear weaponry. Would nuclear weapons still be touted as the ultimate defence weapon? The answer must be a resounding 'No', because Hitler would undoubtedly have used nuclear weapons to compel his opponents into submission (and nuclear weapons would then have been perceived as the ultimate offensive weapon).

Nuclear weaponry becomes the ultimate defence/deterrence weapon when two states achieve MAD against each other. Defence/deterrence based on MAD (between two states) requires that both countries possess nuclear weapons and a reliable delivery system.<sup>195</sup> This result also offers no support for ODB because it also reflects diffusion of technologies and power rather than ODB. When one state holds the monopoly of nuclear weaponry due to technological innovation, that state enjoys an enormous advantage as regards taking offensive action. When two states possess the same weapon technology, however, neither enjoys the unique benefits of being sole holder of an important military innovation. Again, this reflects a change in power or a diffusion of technologies (see above), and has nothing to do with a shift in ODB.<sup>196</sup>

Worse still, if ODB (and theories centred upon it) applies to the nuclear age alone, then it has little rationale to exist at all. Was there not before the coming of ODB a large body theories already in existence collectively known as nuclear deterrence theory?

Most important, deterrence theory has stood up well to repeated criticism, because the core logic of deterrence applies in both the conventional and the nuclear age.<sup>197</sup> Put somewhat simplistically, deterrence theory applies fairly well to both the conventional age and the MAD/nuclear age. In the conventional age, war has been rampant because deterrence by denial (i.e. defence) is often difficult. A determined aggressor can always use brute strength, cunning diplomacy and smart military tactics and strategies to overwhelm or grind down a defender. In the MAD/nuclear age, deterrence

<sup>195</sup> The delivery system can be ICBM, MRBM, SRBM, depending on the geographical distance between the two states. Hence, the notion that nuclear weaponry is the ultimate defence weapon is at best imprecise (thus misleading). The correct notion is that MAD is a defensive weapon system.

<sup>196</sup> In this sense, nuclear revolution understood as the coming of MAD is really a structural factor, and it does not pose any problem for Waltz's structural theory of international politics (i.e. neorealism) as Waltz and his critics thought it would be. The coming of nuclear monopoly and then MAD is a shift in the distribution of military capabilities, thus adequately captured by Waltz's understanding of structure. For a discussion on nuclear weaponry and Waltz's structural theory, see Robert Powell, 'Anarchy in International Relations Theory: The Neorealist-Neoliberal Debate', *International Organization*, Vol. 48, No. 2 (1994), pp. 313–44, at pp. 324–5, and references cited there.

<sup>197</sup> The literature on deterrence is vast. For good reviews, see Paul Huth, 'Deterrence and International Conflict: Empirical Findings and Theoretical Debates', *Annual Review of Political Science*, Vol. 2 (1999), pp. 25–48; Robert Jervis, 'Rational Deterrence Theory: Theory and Evidence', *World Politics*, Vol. 41, No. 2 (1989), pp. 183–207 and Robert Jervis, 'Deterrence Theory Revisited', *World Politics*, Vol. 31, No. 2 (1979), pp. 289–324.

by punishment has become so utterly palpable that in a show-down with a nuclear rival any statesman other than Hitler would back down.<sup>198</sup> Direct conflicts between nuclear powers have thus become rare, partly because large-scale war between nuclear powers is unthinkable. MAD has hence greatly simplified the calculus of war among (nuclear) states.

If nuclear deterrence theory can adequately explain peace under MAD, we must then ask ourselves the question, does ODB have any added value over nuclear deterrence theory for explaining the 'long peace' of the Cold War (and over conventional deterrence theory for explaining that of the conventional age)?<sup>199</sup> What does ODB have to add to the simple explanation offered by deterrence theory? Very little.

More important, whereas deterrence theory, whether conventional or nuclear, can stand alone without ODB, without nuclear deterrence theory theories centred upon ODB cannot. Taken together, one must conclude that deterrence theory has a far stronger claim to being a good theory of war and peace than any theory centred upon ODB. ODB has very little to offer towards understanding either the pre-MAD age or the MAD-age. Just as ODB does not have a conventional (i.e. pre-nuclear/MAD) future, neither does ODB have a MAD/nuclear future.

## Implications

After critically examining all the major components of ODT and eliminating the invalid or inoperable components, a better understanding of ODT arises.

ODT has been classified as a quintessential defensive realism theory,<sup>200</sup> and also identified as a possible demarcation line between offensive realism and defensive realism.<sup>201</sup> This stand is excessively simplistic and hence misleading, and there are three reasons why.

First and foremost, both proponents and opponents of ODT greatly underestimate the complexity of ODT. Second, certain proponents of ODT have taken ODT as an integral part of the security dilemma,<sup>202</sup> partly because Jervis's seminal article was a major contribution both to

<sup>198</sup> For the pacifying effect of MAD, see Jervis, *The Meaning of the Nuclear Revolution*, esp. pp. 23–45; and Kenneth A. Waltz, 'Nuclear Myths and Political Realities', *American Political Science Review*, Vol. 84, No. 3 (1990), pp. 731–45.

<sup>199</sup> For the role of nuclear weapon in the long peace during the Cold War, see John Lewis Gaddis, 'The Long Peace: Elements of Stability in the Postwar International System', *International Security*, Vol. 10, No. 4 (1986), pp. 99–142, at pp. 120–3; Robert Jervis, 'The Meaning of the Nuclear Revolution', pp. 23–45. For counter-arguments, see John Mueller, *Retreat from Doomsday: The Obsolescence of Major War* (New York, NY: Basic Books, 1989).

<sup>200</sup> Jeffery Taliaferro, 'Security Seeking under Anarchy', p. 135.

<sup>201</sup> Kier Lieber, *War and the Engineers*, pp. 8–11.

<sup>202</sup> Charles Glaser, 'Realists as Optimists', p. 61 and Charles Glaser and Chaim Kaufmann, 'What Is the Offense-Defense Balance?', p. 44. See also, Kier Lieber, *War and the Engineers*, p. 24.



security dilemma theory and to ODT.<sup>203</sup> But neither the differentiation of military postures (and weapons) nor ODB is an inherent part of the security dilemma. These two major components of ODT only regulate the security dilemma, which can operate without them.<sup>204</sup> As such, ODT and security dilemma theory are not inherently linked,<sup>205</sup> although understanding the regulation of security dilemma needs to take into account the offensive or defensive nature of military postures adopted by states (see below).

Third, and perhaps most important, proponents of ODT—most of them as defensive realists—have drawn defensive lessons from their conviction that defence generally holds the advantage and offence has rarely been dominant in history. They have hence generally recommended defensive policies to states looking for security under anarchy.

But because a scholar recommends generally defensive policies to states this does not necessarily signify that his theory belongs to the defensive realism body of theories. Moreover, the thesis that states make their decisions of war based on their judgment of ODB—even if they do—is simply a thesis based on cost-benefit analysis. As such, the thesis is consistent with both offensive realism and defensive realism. Finally, the thesis on objective balance and outcome of war or battle is a statement on the outcome of interaction among states' actions and says nothing about states' intentions, and is hence again consistent with both offensive realism and defensive realism. As such, ODT cannot be simplistically classified as a quintessential defensive realism theory, or identified as a possible demarcation line between offensive realism and defensive realism.

With the help of the preceding discussion, ODT can now be more rigorously classified. The objective balance, either in its technology-only or technology-plus form, faces fundamental difficulties as regards measurement and operationalization. Consequently, a theory of objective balance and the outcome of war is almost impossible to construct and has little utility for understanding international politics. One way or another, therefore, classifying theories centred upon the objective balance makes little sense.

The subjective balance as a concept or a variable should be replaced by states' belief in offensive or defensive military doctrines. States' belief in offensive or defensive military doctrines calls for two different theories. They are: (i) a theory that explains states' adoption of offensive or defensive military doctrines; (ii) a theory that explores the relationship between states' belief in defensive or offensive military doctrines and their war

<sup>203</sup> Robert Jervis, 'Cooperation under the Security Dilemma'.

<sup>204</sup> Andrew Kydd, 'Game Theory and the Spiral Model', *World Politics*, Vol. 49, No. 2 (1997), pp. 371–400.

<sup>205</sup> As Van Evera put it, 'security dilemma theory is a misnomer (for offense-defense theory)'. Stephen Van Evera, *Causes of War*, p. 117, footnote 1. See also Richard Betts, 'Must War Find a way?' p. 177

decisions and conduct.<sup>206</sup> The nature of these theories depends on the dependent variable they try to explain. A theory that explains how states elect to find security via offence and so adopt an offensive strategy is an offensive realism theory. In contrast, a theory that explains how states elect to find security via defence and so adopt a defensive strategy is most likely a defensive realism theory.

Differentiation of military postures is the more valid component of ODT, but is not in itself either a defensive realism or offensive realism theory; it is merely a component for constructing theories. It is only when differentiation of military postures is deployed to construct a theory of reassurance through military postures that a defensive realism theory is born.<sup>207</sup> Because cooperation other than temporary alliance when facing a common opponent is deemed by offensive realism as inherently impossible,<sup>208</sup> all theories of cooperation building, including theories of cooperation building through reassurance with military postures, are non-offensive realism theories.<sup>209</sup>

Finally, the preceding discussion makes clear that some of the elaborations centred upon ODT need to be qualified and reformulated. I mention here just two major issues. For instance, Jervis asserts, 'A differentiation between offensive and defensive instances comes close to abolishing it (i.e. the security dilemma). . . . When offensive and defensive postures are different, much of the uncertainty about the other's intentions that contributes to the security dilemma is removed.'<sup>210</sup>

In light of our discussion, Jervis's thesis is essentially null and void. Because even a defensive realist state will need to deploy offensive capabilities, how can another state know that the defensive realist state will not employ its existing offensive capabilities for offensive goals? If another state cannot know for sure that the defensive realist state will not employ its offensive capabilities for offensive goals, then the uncertainty about intentions remains and the security dilemma cannot be completely eliminated. Here, Jervis might have forgotten a factor that he has otherwise consistently emphasized—that of uncertainty about future intentions. He says, 'states will have to worry that even if the other's military postures shows it is peaceful for now, it may develop aggressive intentions in the future'.<sup>211</sup>

Similarly, Christensen and Snyder's widely cited formula for predicting alliances patterns under multipolarity needs a new foundation. In trying to resolve the indeterminacy in Waltz's discussion on alliance patterns in the

<sup>206</sup> The second puzzle is perhaps less fundamental than the first puzzle.

<sup>207</sup> Shiping Tang, *A Theory of Security Strategy*, Chapter 5.

<sup>208</sup> John Mearsheimer, *Tragedy of Great Power Politics*, pp. 32–6.

<sup>209</sup> Shiping Tang, 'Fear in International Politics.' See also Robert Jervis, "Realism, Neoliberalism, and Cooperation: Understanding the Debate," *International Security*, vol. 24, 1 (Sept. 1999), pp. 42–63.

<sup>210</sup> Robert Jervis, 'Cooperation under the Security Dilemma', pp. 199, 201.

<sup>211</sup> *Ibid.*, p. 199.

two world wars,<sup>212</sup> Christensen and Snyder argue that by adding the subjective balance to Kenneth Waltz's framework, one can parsimoniously explain why alliances were tight (i.e. chain ganging prevailed) in WWI whereas alliances were loose (i.e. buck-passing prevailed) in WWII; offence was perceived as dominant before WWI whereas defence was perceived as dominant before WWII. Christensen and Snyder contend that their subjective ODB-based explanation is superior to other alternative explanations.<sup>213</sup> In light of our discussion, this solution ought to be revised, if not totally rejected.<sup>214</sup> In sum, many of the theoretical enterprises that are centred upon ODT (and especially ODB) need a new foundation.

## Conclusion

ODT has consistently held the attention of students of IR due to its aura of being a supposedly structural, parsimonious, and powerful variable for explaining war and peace. In light of the recent debate on ODT, does ODT (still) have a future?<sup>215</sup> The answer, although mixed, is decisively negative.

To begin with, my discussion shows that the whole enterprise of ODB is of dubious value at best and totally irrelevant at worst for understanding international politics. Proponents of ODB represent an essentially technology-centric view of war, and hence generally, if not completely, leave the politics of war out of the discussion. For them, war (and peace) is no longer the continuation of politics, but technology. But under most circumstances technology cannot triumph over politics. Under most circumstances, war and peace are the continuation of politics, not technology or perceptions of technology. Politics among states and within states drive states' choice of grand strategies, military strategies, military doctrines, and military postures.<sup>216</sup>

<sup>212</sup> Kenneth Waltz, *Theory of International Politics* (Reading: Addison-Wesley, 1979), pp. 67, 165–70.

<sup>213</sup> Thomas Christensen and Jack Snyder, 'Chain Gangs and Passed Bucks', pp. 149–50.

<sup>214</sup> On closer examination, Christensen and Snyder's discussion itself reveals that political consideration, rather than subjective ODB (i.e. a technology-centric consideration), might be able to explain much of the alliance pattern in the two world wars. For instance, isn't it possible that alliance patterns in WWI were tight and major European states rushed to offence because European states were all aggressive and feared that taking action too late might jeopardize their share of the spoils of conquest? Moreover, Christensen and Snyder dismiss the possibility that ideological differences between France and the Soviet Union might have played a role in engineering the different alliance patterns of the two world wars. But they forget that although Czarist Russia forged a tight alliance with France, after the Bolshevik revolution Lenin immediately took the Soviet Union out of the war. Moreover, Stalin was a true believer in inter-imperialist contradictions, and would have been highly unlikely to fight Hitler if Hitler had not invaded the Soviet Union, even though Hitler had conquered France. *Ibid.*, pp. 149, 158.

<sup>215</sup> I paraphrase Sean Lynn-Jones here. Sean Lynn-Jones, 'Does Offense-Defense Theory Have a Future?'

<sup>216</sup> ODT's proponents often admit this notion without recognizing it. For instance, Van Evera states that Mao Zedong made his decision to intervene in the Korean War as soon as the United States crossed the 38<sup>th</sup> parallel, and Israel made the decision to smash the Arabs and secure its existence long before they found the perfect opportunity to strike. Similarly,

Moreover, to take the relative advantage between offence and defence as something that can be objectively measured and to believe that states make their decisions on war based on the subjective ODB is to adopt a static approach towards the relationship among military technology, war, state, and human ingenuity. Such an approach has been totally discredited in other fields of social sciences, where the emerging consensus is that in most cases it is the demand for making war and human ingenuity that drives the evolution of military technology, rather than the other way around.<sup>217</sup>

The more valid part of ODT lies in differentiation of military posture. Differentiation of military posture can be employed to construct a theory of signalling benign intentions (i.e. reassurance) toward cooperation. Such a theory puts politics rather than technology at the centre of war and peace. Unfortunately, because we have devoted so much intellectual resource to ODB, our understanding of differentiation of military postures is limited and an adequate theory of signalling benign intentions toward cooperation with military postures was not developed until very recently.<sup>218</sup>

In sum, when it comes to relying on states' military postures and strategies to understand international politics, it is high time we reorient our overall research agenda even if this means that ODT ceases to be an independent body of theories.<sup>219</sup>

Finally and even more broadly, ODT has dominated our attempts to understand the role of (military) technology in international security. Our discussion makes evident that ODT's apolitical approach to the role of (military) technology in international security is untenable. We need a new approach to understand the role of (military) technology in international politics.

Lynn-Jones says that that the 1932–3 Geneva Disarmament Conference failed to reach an agreement on limiting offensive weapons 'because some countries wanted to retain their offensive capabilities and to prevent reduction in their arsenals'. Likewise, although Peter Liberman tried to bring ODB and strategic consideration together (i.e. economic autarky) when explaining Germany and Japanese expansionism, he ended up confirming that strategic considerations almost always triumph over ODB. See, Stephen Van Evera, *Causes of War*, pp. 59–61, 68; Sean Lynn-Jones, 'Offense-Defense Theory', pp. 676–7 and Peter Liberman, 'Offense-defense Balance'.

<sup>217</sup> Jared Diamond, *Guns, Germs, and Steel* (New York: Norton, 1997); Bernard Finel, 'Taking Offense', pp. 183–4; John Keegan, *A History of Warfare*; Kier Lieber, *War and the Engineers*; Robert O'Connell, *Of Arms and Men*; Bradley A. Thayer, *Darwin and International Relations: On the Evolutionary Origins of War and Ethnic Conflict* (Lexington: University of Kentucky Press, 2004), chapter. 4; Charles Tilly, *Coercion, Capital, and European States, AD 990-1992* (Malden: Blackwell, 1990).

<sup>218</sup> Shiping Tang, *A Theory of Security Strategy*, Chapter 5.

<sup>219</sup> Apparently, when differentiation of military postures becomes a component of a body of theories on reassurance toward cooperation, differentiation itself ceases to be an independent body of theories, and becomes a component of a broader body of theories.