Military necessity

Hayashi, N.

Chapter 2

Fitness of Means and Vocational Competence

Within a strictly material context, military necessity can be seen essentially as an *a*moral notion that merely separates competent fighting from incompetent fighting. To say that "doing this or that is militarily necessary to such and such a degree" is simply to signify that the conduct in question is conducive towards the materialisation of a given military end to such and such a degree. Conversely, to say that "doing this or that is militarily *un*necessary to such and such a degree" is to signify that the act does not so conduce to such and such a degree. Understood thus, "material" military necessity embodies a two-fold truism. First, it is in one's strictly strategic self-interest to perform an act to the extent that it is materially conducive to success. Second, it is similarly in one's strictly strategic self-interest to refrain from an act to the extent that it is not so conducive.

This chapter demonstrates that material military necessity denotes a given course of action required for the accomplishment of a particular military goal.[1] Acting in accordance with military necessity means doing three things under the prevailing circumstances. First, the actor desires a military outcome (*Y*). Second, he or she identifies a range of realistically available courses of action (X_1, X_2, X_3, … X_n), each having reasonable chances of generating *Y*. Third, he or she chooses and pursues one option, e.g., X_1, that is superior to the other options on the strength of its chances and resource efficiency.[2] Here, X_1, X_2, X_3, and so on, enjoy various degrees of military necessity, depending on their relative conduciveness *vis-à-vis Y*'s materialisation and their relative efficiency given the circumstances (*Z*). The more conducive X_1 is to *Y*'s materialisation and the more efficient it is in view of the circumstances, the more of a military necessity X_1 is than X_2, X_3, and the like.

Consequently, military necessity in its strictly material sense is a function of the ends sought, the means chosen, and the circumstances prevailing at the time. It is a situation-specific and relational notion that does not involve any requirement of causation *sine qua non*. Just as there can be material military necessities, there can be *non*-necessities.

1. Ends, Means and Circumstances

An ancient Benedictine abbey stands atop Monte Cassino in southern Italy. During World War II, Adolf Hitler ordered the hill incorporated into the defensive complex of the Gustav Line against the Allied advance from the south.[3] Monte Cassino was situated at the mouth of the Liri Valley with a commanding view of all of the valley's approaches.[4] The valley provided the most direct gateway to Rome.[5] An entry into it became urgent for the Allied forces in view of the protracted battle at the Anzio beachhead, another strategic point for the purposes of weakening the Gustav Line.[6] The task of opening a Liri Valley entrance fell on forces under the command of Lieutenant General Sir Bernard Freyberg.[7]

---

[1] See, e.g., Pietro Verri, *Dictionary of the International Law of Armed Conflict* (1992), at 75 (emphasis omitted): "In its wider sense, necessity means doing what is necessary to achieve war aims".

[2] It is not inconceivable that the available options have such limited chances of success, or that they are so inefficient resource-wide, or both, under the circumstances prevailing at the time, that there is no rational alternative to taking no action at all *vis-à-vis* the desired outcome.

[3] See Martin Blumenson, *The Mediterranean Theater of Operations: Salerno to Cassino* (1969), at 155, 311.

[4] See *ibid.*, at 403.

[5] See *ibid.*, at 226.

[6] See *ibid.*, at 353, 385-396, 401.

[7] See *ibid.*, at 401-402. General Freyberg was in command of the provisional New Zealand Corps with the 2nd New Zealand and 4th Indian Divisions under its control at the time. See *ibid.*

In January 1944, Allied commanders were instructed to make every effort to avoid damage to the abbey.[8] This, however, was subject to a proviso added by the headquarters of General Sir Harold R.L.G. Alexander to the effect that "[c]onsideration for the safety of such areas will not be allowed to interfere with military necessity".[9] On 9 February, Lieutenant General Mark W. Clark authorized Freyberg "to fire against the monastery if in Freyberg's judgment military necessity dictated this action".[10] Major General F.S. Tuker, Freyberg's subordinate charged with weakening the Gustav Line at the Liri valley, determined that the abbey had to be destroyed.[11] When requesting an aerial bombardment, Freyberg stated that Tuker "who is making the attack feels that it is an essential target and I thoroughly agree with him".[12]

Clark was of the opinion that the abbey's destruction was unwarranted.[13] He believed "that no military necessity existed, that a bombardment would endanger the lives of civilian refugees in the building, and that bombardment would probably fail to destroy the abbey and would be more than likely to enhance its value as a fortification".[14] Major General Alfred M. Gruenther, Clark's Chief of Staff, was told that Alexander had faith in Freyberg's judgment and that "[i]f there is any reasonable probability that the building is used for military purposes … its destruction is warranted".[15] Gruenther also informed Freyberg of Clark's view on the matter. One account of Freyberg's reply states:

> General Freyberg said he had gone into the matter thoroughly with [Tuker], who was quite convinced that bombing the monastery was necessary. Freyberg added that he thought it was not "sound to give an order to capture Monastery Hill and at the same time deny the commander the right to remove an important obstacle to the success of this mission." A higher commander who refused to authorize the bombing, Freyberg warned, would have to take the responsibility if the attack failed. Gruenther said that Clark was ready to authorize the bombing if Freyberg considered it a military necessity. According to Gruenther's record, General Freyberg then said that "it was his considered opinion that it is a military necessity."[16]

An aerial bombardment was scheduled on 13 February and, after a delay, initiated two days later.[17] Almost six hundred tons of high-explosive virtually demolished the monastery.[18] The abbey's destruction did not bring about the hill's capture, however.[19] As Clark had foreseen,

> the bombardment of the abbey had failed to break the Gustav Line at its critical point. Not only the major bombing on 15 February, but the relatively heavy bombings on successive days, which had further reduced the monastery, failed to dislodge the stubborn and skillful troops in well-nigh perfect defensive positions. The ground and air commands in the theater were profoundly disappointed. Had the ground forces been unable to take advantage of the bombardment? Or were the bombers incapable of eradicating tactical positions and therefore useless for direct support of ground attack? No one seemed to know … In the final analysis, no one had been altogether certain what the bombardment was supposed to accomplish except to flatten the abbey. The escalation of

---

[8] See *ibid.*, at 398.
[9] *Ibid.*, at 398-399 (footnote omitted). General Alexander was the commander of the 15th Army Group at the time. See *ibid.,* at 34.
[10] *Ibid.*, at 403 (footnote omitted). General Clark was the commander of the U.S. Fifth Army at the time. See *ibid.,* at 28.
[11] See *ibid.*, at 403 (footnote omitted): "The commander of the 4th Indian Division, Maj. Gen. F. S. Tuker, after studying the problem of how to break the Gustav Line in the Cassino area, had no doubt that the monastery was a real obstacle to progress ... Since the monastery commanded all the approaches to the Liri valley, Tuker decided it had to be destroyed before he could attack. He requested his corps commander, General Freyberg, to arrange for an air bombardment".
[12] *Ibid.*, at 404.
[13] See *ibid*.
[14] *Ibid.*, at 405-406.
[15] *Ibid.*, at 405.
[16] *Ibid.*, at 406.
[17] See *ibid.*, at 406-407, 409.
[18] See *ibid.*, at 411.
[19] See *ibid.*, at 417.

> the air effort from a relatively modest attack to an overwhelming strike had achieved nothing beyond destruction, indignation, sorrow, and regret.[20]

It took the Allied forces another three months to break through the Gustav Line on the Liri Valley (15 May)[21] and to capture Monte Cassino and its abbey (18 May).[22]

Freyberg identified the monastery's destruction as the conduct and Monastery Hill's capture as its purpose. The circumstances surrounding the conduct and purpose included the abbey's structure, the hill's topography, weather conditions, weapons and communications equipment available, and so on.[23] In the event, the particularly thick outer walls of the abbey had "resisted the blasts and although breaches appeared none of them reached the ground level".[24] This, combined with unintegrated employment of airpower, "did nothing to lighten the task of the infantry, which was unable to take advantage of the confusion and destruction by staging a correlated attack".[25]

Whether the attack on the abbey did or did not constitute a military necessity was hotly debated.[26] It is reasonable to assume that Freyberg and Tuker were professionally competent soldiers and found in good faith that the abbey's destruction was a military necessity. It is also reasonable to assume, however, that Clark and the others were similarly competent soldiers who came to different conclusions, also in good faith.[27] Opinions of other persons associated with the Allied action were also divided. For instance, Major General Fred L. Walker noted:

> This was a valuable historical monument, which should have been preserved. The Germans were not using it and I can see no advantage in destroying it. No tactical advantage will result since the Germans can make as much use of the rubble for observation posts and gun positions as of the building itself. Whether the Germans used the building for an observation post or for emplacements makes little difference since the mountain top on which the building stands can serve the same purpose.[28]

According to Martin Blumenson, U.S. President Theodor D. Roosevelt told the Vatican that "he had issued instructions to prevent the destruction of historic monuments except in cases of military necessity. The bombardment, he said, had been unfortunate but necessary".[29]

The Germans' suspected use of the abbey for military purposes exacerbated the situation. The German forces undertook to ensure respect for the abbey itself despite the fact that their commander, Henrich von Vietinghoff, acknowledged that the monastery had "good observation posts" and "good positions of concealment".[30] Initially, some Allied commanders received intelligence to the effect that the Germans used the abbey.[31] Others disagreed, however, and later confirmed that the information was not accurate.[32]

To complicate the matter further, an act can be of different degrees of military necessity or non-necessity *vis-à-vis* its goal. All else being equal, one course of action can be more or less militarily necessary than another by virtue of their relative conduciveness *vis-à-vis* a given purpose. In view of Monte Cassino's capture (*Y*) as the Allied objective, destroying the abbey first and then advancing

---

[20] *Ibid.*
[21] See Ernst F. Fisher, Jr., *The Mediterranean Theater of Operations: Cassino to the Alps* (1977), at 77.
[22] See *ibid.*, at 78.
[23] See Blumenson, *Salerno to Cassino*, *supra* note 3, at 402-403, 408.
[24] Nigel de Lee, "Moral Ambiguities in the Bombing of Monte Cassino", 4 *Journal of Military Ethics* 129 (2005), at 135 (quoting G.R. Stevens, *The Fourth Indian Division* (1950), at 286).
[25] De Lee, *supra* note 24, at 135 (quoting Stevens, *supra* note 24, at 286).
[26] See Blumenson, *Salerno to Cassino*, *supra* note 3, at 405-406.
[27] There were other skeptics too, such as Major General Geoffrey Keyes, Major General Charles W. Ryder, and Colonel Mark M. Boatner. See *ibid.*, at 405, 407.
[28] *Ibid.*, at 413. Footnote omitted.
[29] *Ibid.*, at 415-416.
[30] See *ibid.*, at 400.
[31] See *ibid.*, at 408.
[32] See *ibid.*, at 413-414.

the infantry (X_1) was arguably more militarily necessary than advancing the infantry without first destroying the abbey (X_2) would have been, under the circumstances prevailing at the time (Z).

Alternatively, all else being equal, a given course of action can be more or less militarily necessary relative to one purpose than to another. For instance, under the prevailing circumstances (Z), destroying the abbey (X) was arguably more militarily necessary *vis-à-vis* capturing the hill (Y_1) than it would have been *vis-à-vis* drawing the German strength away from Anzio (Y_2). In Nigel de Lee's words:

> The Higher Command seemed to be losing sight of the object of operations ... the object was not necessarily to attack and capture the Monte Cassino features. The object was to menace the enemy's position on the Gustav line as to induce him to withdraw from the Anzio front sufficient forces to preclude his exerting any sort of decisive pressure there ... There were two quite reasonable operations in that region that could be undertaken which would threaten the safety of the Monte Cassino feature sufficiently to draw Axis reinforcements.[33]

In the further alternative, all else being equal, a given course of action can be more or less militarily necessary in relation to a given purpose in one set of circumstances than in another. Thus, destroying the abbey (X) was arguably more militarily necessary for capturing the hill (Y), given the abbey's topographic dominance over the hill (Z_1) than, say, if it had not had such dominance (Z_2). Winston Churchill described the abbey's topography as follows: "The height on which the monastery stood surveyed the junction of the rivers Rapido and Liri and was the pivot of the whole German defense. It had already proved itself a formidable, strongly defended obstacle. Its steep sides, swept by fire, were crowned by the famous building".[34] One commentator argues that the material military necessity for the abbey's destruction was circumstantially undermined by the difficulties associated with coordinating aerial bombardment, artillery bombardment, and infantry attack:

> What Tuker describes here is a complicated attack that requires the co-ordination of three different branches of the service and where timing is crucial. But war is characterized by what von Clausewitz called friction. In war, things have a strong tendency not to go the way they were planned. In other words, the probability that the precisely co-ordinated campaign Tuker asked for could have been delivered under the circumstances was extremely low.[35]

The Monte Cassino experience shows that the material military necessity or non-necessity of given belligerent conduct is inevitably situation-dependent and evaluative. Given enough facts, the proposition "destroying the Benedictine abbey atop Monte Cassino on 15 February 1944 constituted a military necessity for the Allies" is susceptible to reasonable assessment, although the determination may differ from assessor to assessor. What is insusceptible to such assessment is a generalised proposition – such as "destroying a building sitting atop a strategically important hill constitutes a military necessity" – postulated *a priori* in a manner that holds true for all, always and everywhere.

---

[33] See de Lee, *supra* note 24, at 133 (quoting Letter from Sir Francis Tuker, Lieutenant General in the British Army, to Major General Henry "Taffy" Davies (26 May 1965) (on file with Colonel G. Shakespear)). See also Reuben E. Brigety II, "Moral Ambiguities in the Bombing of Monte Cassino", 4 *Journal of Military Ethics* 139 (2005), at 140: "[O]ne might morally fault the Allied commanders not for their professional incompetence in the conduct of the assault, but for their lack of strategic imagination in assigning such grave military significance to capturing Cassino and the Abbey. Given that General Clark was advised by General Tuker that the only possibility for success was to launch sustained and devastating air strikes on the target, which would have caused more damage than General Clark initially indicated would be acceptable to him, the Allies might have (and arguably should have) re-evaluated if there was another way to achieve their broad operational and strategic objectives in the Italian campaign without taking Cassino".

[34] Winston S. Churchill, 5 *The Second World War: Closing the Ring* (1951), at 499. Alexander provided similar descriptions of topographic details of the hill as well as the difficulties confronting the Allies to Churchill. See *ibid.,* at 508-509.

[35] Uwe Steinhoff, "Moral Ambiguities in the Bombing of Monte Cassino", 4 *Journal of Military Ethics* 142 (2005), at 142.

2. Causation *Sine Qua Non* Not Required

Establishing material military necessity does not entail *sine qua non* ("but for") causation. Generally, upholding the "but for" causation between one event, E_1, at a given moment and another event, E_2, at a subsequent moment amounts to asserting the truth of two propositions. They are, respectively, that both E_1 and E_2 in fact occur, and that E_2 would not have occurred "but for" E_1. The military necessity or otherwise of the conduct occurring (E_1=X) is capable of comprehension even where the purpose sought by it (E_2=Y) does not, in fact, materialise. Nor, even where E_2 materialises, does military necessity require that E_1's occurrence be E_2's *conditio sine qua non*.

2.1 No Causation Requirement

Acting in accordance with military necessity does not imply overcoming what Carl von Clausewitz called war's "friction".[36] Friction may well deny the military purpose's materialisation despite the very best and otherwise effective courses of action being pursued.

Operation Market Garden is a case in point. According to one authoritative account, "Operation MARKET-GARDEN accomplished much of what it had been designed to accomplish. Nevertheless, by the merciless logic of war, MARKET-GARDEN was a failure. The Allies had trained their sights on far-reaching objectives. These they had not attained".[37] The unattained objectives included securing a bridgehead beyond the Neder Rijn, effectively turning the north flank of the West Wall, cutting off Germany's Fifteenth Army, and positioning the 21st Army Group for a drive around the north flank of the Ruhr.[38] The account continues:

> Though MARKET-GARDEN failed in its more far-reaching ramifications, to condemn the entire plan as a mistake is to show no appreciation for imagination and daring in military planning and is to ignore the climate of Allied intelligence reports that existed at the time. While reasons advanced for the failure range from adverse weather (Field Marshall Montgomery) and delay of the British ground column south of Eindhoven (General Brereton) to faulty intelligence (the Germans), few criticisms have been leveled at the plan itself. In light of Allied limitations in transport, supplies, and troops for supporting the thrust, in light of General Eisenhower's commitment to a broad-front policy, and in light of the true conditions of the German army in the West, perhaps the only real fault of the plan was overambition.[39]

With the possible exception of faulty intelligence, the reasons offered above are typical indicators of an operation's Clausewitzian friction.[40] Moreover, many of the measures taken during the

---

[36] See Carl von Clausewitz, *On War* (1832; Michael Howard and Peter Paret eds. and trans., 1989), at 119-121. Barry D. Watts offers the following taxonomy of Clausewitzian friction: danger's impact on the ability to think clearly and act effectively in war; the effects on thought and action of combat's demands for exertion; uncertainties and imperfections in the information on which action in war is unavoidably based; friction in the narrow sense of the internal resistance to effective action stemming from the interactions between the many men and machines making up one's own forces; the play of chance, of good luck and bad, whose consequences combatants can never fully foresee; physical and political limits to the use of military force; unpredictability stemming from interaction with the enemy; and disconnects between ends and means in war. See Barry D. Watts, *Clausewitzian Friction and Future War* (1996), at 30, 32.

[37] Charles B. MacDonald, *The European Theater of Operations: The Siegfried Line Campaign* (1963), at 198.

[38] See *ibid.* (also explaining that "[t]he hope of attaining these objectives had prompted the ambition and daring that went into Operation MARKET-GARDEN. Not to have realized them could mean only that the operation had failed").

[39] *Ibid.*, at 199. See also Winston S. Churchill, 6 *The Second World War: Triumph and Tragedy* (1953), at 198-200 (describing how weather and dangerous river conditions contributed to the Allies' difficulties in Operation Market Garden).

[40] Of course, not all commentators look upon Operation Market Garden's failure so charitably – to put it mildly – by describing its difficulties and shortcomings as instances of Clausewitzian friction. See, e.g., Norman Dixon, *On the Psychology of Military Incompetence* (1976), at 145-148, esp. 148 (citation omitted): "For the student of military disasters, the attack on Arnhem ranks with Kut and the Bay of Pigs fiasco. Through inappropriate risk-taking, underestimation of the enemy, the neglect of unpalatable information and a failure of technology, military decisions by able brains, at high levels of command, brought down misery and chaos".

ultimately unsuccessful Operation Market Garden were nevertheless military necessities for the operation. By way of example, one might note the assault on the Arnhem highway bridge by Lieutenant Colonel J.D. Frost and his battalion,[41] as well as their subsequent effort to maintain their foothold on that bridge.[42] By all accounts, securing the Arnhem highway bridge under the circumstances prevailing at the time was one of the operations' most crucial components.[43] The actions of Frost and his men were eminently relevant to the objectives' materialisation: They reached the bridge and held their position amid intense enemy action, mounting casualties, and increasingly untenable conditions.[44]

Admittedly, the objectives' non-materialisation *may* – and, sometimes, does – indicate the military non-necessity of the measures taken for them. Consider, for example, the fall of Singapore in 1942. In a rather dramatic fashion, the British objective of defending Singapore from Japanese forces advancing through the Malay Peninsula failed to materialise. This failure has been attributed to a series of measures, some inadequate (e.g., the stationing of only severely limited and largely obsolete ships and aircraft) and others affirmatively detrimental (e.g., relentless self-deception and under-preparation), that were taken by British and Australian commanders.[45] It does not follow, however, that an objective's failure always entails the measure's lack of military necessity, or that a measure constitutes a military necessity only where its objective materialises.

2.2 No *Conditio Sine Qua Non* Requirement

Nor does military necessity involve *conditio sine qua non*. Causal elements of *conditio sine qua non* are by their very nature indemonstrable. What is often treated as a causal *sine qua non* is really an explanation of a singular event rather than the statement of a purported causal law governing similar combinations of events.[46] There may be other elements of *conditio sine qua non* that are demonstrable, but they are either mere analytic connections or incidental connections.[47]

Moreover, having made allowances for Clausewitzian friction,[48] each belligerent is always faced with a *choice* among a range of courses of action *vis-à-vis* its objective. This or that particular *range* may be a *sine qua non* with respect to this or that particular objective. Once the range is defined, however, the particular course of action chosen from that range is never truly a *sine qua non*. It is rather a matter of choosing that one course of action which is the *best*, all things considered. What makes the particular choice the best is a function of various criteria, such as the one that stands the greatest chances of accomplishing the objective, or the one that is the most resource-efficient, or the one that is the most politically acceptable among co-belligerents.

For instance, there is nothing *sine qua non* about the Allied forces landing on the beaches of Normandy for the purposes of invading northwest Europe. Landing at Normandy was arguably a military necessity, but *not* because the Allied invasion of northwest Europe would have otherwise been unsuccessful. This one cannot know; it cannot be ruled out that landing at some other location

---

[41] See, e.g., MacDonald, *supra* note 37, at 171.
[42] See, e.g., *ibid.*, at 171-172, 179, 185-186.
[43] See, e.g., Churchill, *Triumph and Tragedy*, *supra* note 39, at 196-197.
[44] See, e.g., *ibid.*, at 198.
[45] For further discussion, see Timothy Hall, *The Fall of Singapore* (1983). See also our discussion of military non-necessities below.
[46] See, e.g., Donald Davidson, *Essays on Actions and Events* (1980), at 15-17, 149-162 ("What emerges, in the *ex post facto* atmosphere of explanation and justification, as *the* reason frequently was, to the agent at the time of action, one consideration among many, *a* reason").
[47] See H.L.A. Hart and Tony Honoré, *Causation in the Law* 2d ed. (1985), at 115: "If a man is knocked down and injured by a vehicle the fact that he is a man, human, and has a body, is something which is logically entailed by the description of the event with which we start and whose cause we may seek". See also *ibid.*, at 116 (explaining that the act of shooting a gun successfully requires "the fact that the cartridge was charged with explosive").
[48] See von Clausewitz, *supra* note 36, at 119-121.

might have also led to a successful Allied invasion of northwest Europe.[49] Landing at Normandy was arguably a military necessity because its beaches were the *best* among other candidate locations, all things considered.

There may be one element – the genius of the military leader – that comes closest to being truly irreplaceable. In all likelihood, Emir Faisal's forces would not have taken Aqaba but for Lieutenant T.E. Lawrence.[50] Nevertheless, the mere fact that true military genius in action may practically constitute a *conditio sine qua non* for some of the objectives it achieves does not mean that its existence is the only situation in which one can intelligibly speak of military necessity.

3. Military Non-Necessities

Wars can be poorly fought in various ways. For instance, doing *X* may be wasteful relative to accomplishing *Y*; it may be excessive in relation to accomplishing *Y*; it may simply have no bearing whatsoever on accomplishing *Y*; or it may be done for its own sake and without any particular purpose. Wastefulness, excessiveness, impertinence, futility, purposelessness, and the like, are improvable non-necessities that are not solely the products of irreducible friction. They would typically emanate from ill-advised, unrealistic, or otherwise badly defined military goals, ill-chosen means, and/or poor execution[51] under the prevailing circumstances. In reality, uneconomical wars are often the combined result of these acts and goals.[52]

As noted earlier, material military necessity is a relational and evaluative notion. The degree to which X_1 constitutes a military necessity *vis-à-vis Y* is relative to the degree to which some X_2 constitutes a non-necessity *vis-à-vis Y*. There are two manners in which material military non-necessity may be construed.

3.1 Non-Necessities *per se*: Futility and Purposelessness

The first is where non-necessity emanates from the lack of cogency intrinsic to the end sought or the means taken. Consider futility and purposelessness, for example. Futility would arise where one identifies an end that is so utterly unattainable at the relevant time that none of the means then available would have any reasonable prospects of success. This occurs where, odd as it may sound, only refraining from *X* can be said to constitute a military necessity *vis-à-vis* accomplishing *Y*, or where *Y* ought to be modified so that performing *X* does become a necessity therefor. Examples include launching an assault with an insufficient amount of ammunition in the knowledge that the objective sought would remain unaccomplished as a result, as was arguably the case with numerous instances of kamikaze attacks and Hitler's order to defend Berlin to the last man.

---

[49] Here, the possible *sine qua non* range of courses of action would have been to effect a landing somewhere. Without such a landing, it is quite difficult to imagine how the Allies would have successfully invaded northwest Europe.

[50] See T.E. Lawrence, *Seven Pillars of Wisdom* (1935), at 167-168.

[51] Nigel de Lee suggests that the military necessity of attacking the Monte Cassino abbey diminished materially, if also morally, because it was not conducted professionally. See de Lee, *supra* note 24, at 133, 137. See also Brigety, *supra* note 33, at 140 (emphasis added): "In other words, De Lee suggests that the primary moral difficulty of the Cassino case is that the attack caused more damage than it might have done *if it were carried out in a more expert and discriminate manner*".

[52] Ineffectiveness may be blamed on factors such as misguided leadership; political-ideological preconceptions; doctrinal rigidity; defective communication and co-ordination; unimaginativeness, distraction and indecision at the tactical, operational and/or strategic levels; poor intelligence; incompetent planning; inadequate training; lack of equipment; wasteful allocation and expenditure of resources; reckless bravery and adventurism; indiscipline; cowardice; low morale; defeatism; and so on. See, e.g., Dixon, *supra* note 40, at 50 ("poor planning, unclear orders, lack of intelligence (in both senses of the word) and fatal acquiescence to social pressures"), 66 ("unrelieved stupidity" and generals being "inexperienced, irresolute and lacking moral courage"), 144 ("passivity and courtesy, rigidity and obstinacy, procrastination, gentleness and dogmatism"), 148 ("inappropriate risk-taking, underestimation of the enemy, the neglect of unpalatable information and a failure of technology").

Where there is no rational military end set, the act in question might be purposeless and incapable of being materially necessary in any meaningful sense of the expression. The Rape of Nanking may be noted in this regard.

3.2 Relative Non-Necessities

The second manner in which non-necessity may be construed is where it emanates from the lack of cogency under the circumstances between an otherwise reasonably attainable end sought and the otherwise reasonably actionable means taken.[53] Examples include wastefulness, excessiveness, and impertinence.

3.2.1 Wastefulness

Wastefulness means expending more resources than would be reasonably required to accomplish a military goal under the prevailing circumstances.[54] Failing to achieve an economy of force[55] typifies a non-necessity of this nature. Admittedly, calculating the economy of force in military operations, as well as determining what makes particular belligerent conduct economical as opposed to wasteful, would be anything but straightforward. Nevertheless, several formulas, such as the Lanchester's Square Law for a given sector of ground combat and its variations, have been suggested.[56]

During World War II, General Lloyd Fredendall of the U.S. Army received criticism for what may be characterised as the wasteful – not to mention ineffectual – expenditure of resources, that is, the command post he had constructed near Tebessa. According to one account:

> Commanders usually try to establish their headquarters near a road, adjacent to existing communications facilities and close enough to the combat units for convenient visits. Fredendall's was distant from the front and far up a canyon, a gulch that could be entered only by a barely passable road constructed by his corps engineers. Though towering mountains and wooded hillsides concealed his presence, he had underground shelters dug and blasted for himself and his staff. Two hundred engineers would work for more than three weeks on this project, then abandon it unfinished under the German threat at Kasserine … To those who asked, Fredendall explained that German aircraft were active over the area and that they made special efforts to destroy command posts. He had gone underground because he had no intention of having his activities disrupted. Though sixty or seventy miles behind the front was rather far for frequent visits to the combat units, he saw no need to be closer. He would run the battle by telephone and radio.[57]

---

[53] As noted earlier, however, the mere fact that certain Clausewitzian friction attends a given act in war is not itself indicative of the act's lack of military necessity. The relevant comparison is not one with paper-perfect, arm-chair alternatives, but one with those that are reasonably actionable, friction having been taken into account. Nor, for that matter, is it perforce the case that a measure's non-necessity derives from it not being the least injurious amongst those reasonably available courses of action that are similarly conducive towards the end's attainment, or from it not retaining some acceptable ratio between the gain sought and the harm occasioned. Limiting injury and proportion are elements of what might be termed "juridical" military necessity. See Part III below.

[54] See, e.g., Chris af Jochnick and Roger Normand, "The Legitimation of Violence: A Critical History of the Laws of War", 35 *Harvard International Law Journal* 49 (1994), at 53-54: "Belligerents tend to use the minimal force necessary to achieve their political objectives".

[55] The U.S. Joint Chiefs of Staff explain economy of force in the *Joint Operations* manual as follows: "The purpose of the economy of force is to allocate minimum essential combat power to secondary efforts. Economy of force is the judicious employment and distribution of forces. It is the measured allocation of available combat power to such tasks as limited attacks, defense, delays, deception, or even retrograde operations to achieve mass elsewhere at the decisive point and time". See Joint Chiefs of Staff, *Joint Operation (Joint Publication 3-0)* (2008), appendix A, at A-2. See also Michael N. Schmitt, "The Interpretive Guidance on the Notion of Direct Participation in Hostilities: A Critical Analysis", 1 *Harvard National Security Journal* 5 (2010), at 33 n.92; Office of General Counsel, Department of Defense, *Department of Defense Law of War Manual* (2015), at 60, 1056.

[56] See, e.g., Paul K. Davis, *Aggregation, Disaggregation, and the 3:1 Rule in Ground Combat* (1995), at 2-6.

[57] Martin Blumenson, *Kasserine Pass: Rommel's Bloody, Climactic Battle for Tunisia* (1966), at 86-87.

Fredendall also had an entire anti-aircraft battalion emplaced to protect his command post.[58] General Dwight D. Eisenhower was quoted as saying: "It was the only time during the war that I ever saw a higher headquarters so concerned over its own safety that it dug itself underground shelters".[59] Fredendall sought the protection of his headquarters against detection and attack by German aircraft.[60] He endeavoured to accomplish this objective by choosing the particular location for it and by expending considerable military resources – such as engineers for its construction and anti-aircraft batteries for its defence.[61] Some degree of protection from aerial threats, as well as some corresponding resource expenditure, may be reasonable for any military headquarters. It is arguable, however, that Fredendall's was exaggerated in the end sought and wasteful in the means taken.

During the Cuban Revolution, Che Guevara apparently came to regard targeted assassinations – he called it "terrorism"[62] – as a wasteful tactic. Thus,

> In special circumstances, after careful analysis, assaults on persons will be used. In general, we consider that it is not desirable except for the purpose of eliminating some figure who is notorious for his villainies against the people and the virulence of his repression. Our experience in the Cuban struggle shows that it would have been possible to save the lives of numerous fine comrades who were sacrificed in the performance of missions of small value. Several times these ended with enemy bullets of reprisal on combatants whose loss could not be compared with the results obtained. Assaults and terrorism in indiscriminate form should not be employed.[63]

Here, targeted assassination was a means being considered for the purpose of eliminating individual figures notorious for their villainies against the people. For Guevara, the wastefulness of this tactic would issue from his conclusion that "it would have been possible to save the lives of numerous fine comrades who were sacrificed in the performance of missions of small value".[64]

3.2.2 Excessiveness[65]

As a type of non-necessity, excessiveness would imply the combination of two things. First, the means taken accomplishes its end. Second, the means also generates externalities. Expending more resources than would otherwise be reasonably required to accomplish a military goal would be excessive if, by doing so, the expender achieves that goal as well as some other consequences immaterial to the goal's accomplishment. Understood thus, it might be said that excessiveness is a species of wastefulness.

---

[58] See Stephen E. Ambrose, *D-Day, June 6, 1944: The Climactic Battle of World War II* (1994), at 361.
[59] Richard Collier, *The War in the Desert* (1977), at 162.
[60] See Blumenson, *Kasserine Pass*, *supra* note 57, at 86-87.
[61] See Collier, *supra* note 59, at 162.
[62] See Che Guevara, *Guerrilla Warfare* (1961; J.P. Morray trans., 1985), at 139-140: "Sabotage has nothing to do with terrorism; terrorism and personal assaults are entirely different tactics. We sincerely believe that terrorism is of negative value, that it by no means produces the desired effects, that it can turn a people against a revolutionary movement, and that it can bring a loss of lives to its agents out of proportion to what it produces. On the other hand, attempts to take the lives of particular persons are to be made, though only in very special circumstances; this tactic should be used where it will eliminate a leader of the oppression. What ought never to be done is to employ specially trained, heroic, self-sacrificing human beings in eliminating a little assassin whose death can provoke the destruction in reprisal of all the revolutionaries employed and even more".
[63] *Ibid.,* at 131. Guevara goes on to state (*ibid.*): "More preferable is effort directed at large concentrations of people in whom the revolutionary idea can be planted and nurtured, so that at a critical moment they can be mobilized and with the help of the armed forces contribute to a favorable balance on the side of the revolution".
[64] *Ibid*.
[65] To be abundantly clear, however, the expression "excessiveness" is used here in a strictly material sense. Of interest is *not* excessiveness of the sort prohibited, *inter alia*, in Article 51(5)(b) of Additional Protocol I. See Article 51(5)(b), Protocol Additional to the Geneva Conventions of 12 August 1949, and Relating to the Protection of Victims of International Armed Conflicts (Protocol I) (8 June 1977).

Concentrated artillery bombardment commonly practiced by the Allies during World War I is a case in point. The Battle of Neuve Chapelle in March 1915 saw the concentration of artillery fire reach one gun for four yards of attacking front.[66] The then-prevailing doctrine emphasised the importance of maximising the volume of shells falling per unit of space (i.e., the means taken) with a view to destroying as many physical obstacles on it as possible (i.e., the end sought) ahead of an infantry advance.[67] Inevitably, those shells which successfully eliminated obstacles such as barbed wires would come at the expense of numerous others which hit surfaces not, or no longer, containing any obstacle.[68]

The inefficient excessiveness of bombarding Neuve Chapelle led to an adjustment in the barrage technique. At the Battle of Aubers in May 1915, "the bombardment before the attack on the ridge was more deliberate, and primarily concerned with accurate wire-cutting".[69] This shift may have reduced the bombardment's excessiveness *vis-à-vis* its stated purpose. One commentator notes, however, that what was really needed, and later implemented for efficiency, is a shift in the purpose sought (i.e., from maximum material damage to undermining enemy morale) and in the means taken (i.e., from the heaviest possible bombardment to one that catches the enemy by surprise and maximises intensity).[70]

3.2.3 Impertinence

Impertinence is what results where the stated, otherwise reasonably attainable objective would not be served in any meaningful way by pursuing, even successfully, the means chosen.

In 2007, the Ig Nobel Prize for Peace was awarded to the U.S. Air Force Wright Laboratory "for instigating research & development on a chemical weapon – the so-called 'gay bomb' – that will make enemy soldiers become sexually irresistible to each other".[71] The award was based on research proposed for the development, *inter alia*, of:

> Chemicals that effect [*sic*] human behavior so that discipline and morale in enemy units is adversely effected [*sic*]. One distasteful but completely non-lethal example would be strong aphrodisiacs, especially if the chemical also caused homosexual behavior. Another example would be a chemical that made personnel very sensitive to sunlight.[72]

Reportedly, however, the effort to develop weapons such as those which would simulate flatulence amongst enemy soldiers was not pursued when "researchers concluded that the premise for such a device was fatally flawed because 'people in many areas of the world do not find faecal odour offensive, since they smell it on a regular basis'".[73] The concern expressed by the Ig Nobel laureates might be reformulated as follows: There is a danger that the stated objective of adversely affecting enemy discipline and morale will not be pertinently served even if the bomb does simulate flatulence amongst enemy soldiers as intended.

Although it may come across as harsh historical second-guessing, being confronted with paradigm-changing weapons and tactics sometimes prompted warring parties to take courses of action which were impertinent *vis-à-vis* their military goals. Thus, at Agincourt in 1415, the numerically

---

[66] See Ian V. Hogg, *Barrage: The Guns in Action* (1970), at 11-13.
[67] See *ibid.*, at 15.
[68] There were complaints in the aftermath that "the wire cutting was patchy and the firing careless, one or two shells actually falling short during the barrage". *Ibid.,* at 16.
[69] *Ibid.*
[70] See *ibid.*, at 14-15.
[71] "Winners of the Ig® Nobel Prize", Improbable Research (http://improbable.com/ig/winners). See also "'Gay Bomb' Scoops Ig Nobel Award", *BBC News*, 4 October 2007.
[72] U.S. Air Force Wright Lab., *Harassing, Annoying, and "Bad Guy" Identifying Chemicals* (1994) (http://www.sunshine-project.org/incapacitants/jnlwdpdf/wpafbchem.pdf).
[73] See "US Military Pondered Love Not War", *BBC News*, 15 January 2005.

superior French men-at-arms charged "like lemmings" into their death at the hands of English longbows raining on them in a highly confined and increasingly crowded "killing zone".[74] Military historians observe that the disjoint between the victory clearly sought (and assumed) by the French and their seemingly impertinent battlefield behaviour, especially the eschewal of their own longbows, was attributable to the "confrontational ethos of the feudal warrior".[75] Such ethos encompassed the traditional skills, weapons and education by which the feudal warrior identified himself, as well as "the alleged unwillingness of men-at-arms to cross weapons with archers, their social inferiors, when the chance to win glory, and prisoners, in combat with other men-at-arms presented itself".[76] Agincourt arguably exemplifies a non-necessity where the tactics were *not* cogently chosen in view of a military purpose, but driven in reality by impertinent considerations such as social status and personal gain.

4. Conclusion

The foregoing shows that material military necessity is an element of belligerent conduct, which separates fighting that is effective and conducive to success from fighting that is neither. The notion merely entails the truism that it is in each belligerent's strictly strategic self-interest to maximise his or her abilities and that it is similarly in each belligerent's strictly strategic interest to avoid failures.

Indeed, to the consummate soldier of a Clausewitzian cast,[77] a good war is one in which every act constitutes a material military necessity – that is, executed both professionally and with the optimal resource mobilisation, and directed towards a clearly defined, strategically sound, and reasonably attainable military goal under the prevailing circumstances.[78] Of course, as noted earlier, it is eminently possible that a soldier acts in accordance with material military necessity in a given situation without attaining his or her military goal. Despite the soldier's unsparing efforts to the best of his or her occupational competence, he or she may simply fall victim to war's inevitable friction – in other words, without anyone, himself or herself, or indeed anybody else, failing to act in accordance with military necessity. Acting in accordance with it is not, and need not be, a guarantee of success.

As is the case with any other occupation, pursuing material military necessities and avoiding non-necessities is first and foremost a component of vocational competence. This component involves assessing the relationship between the various means available and the various goals that might be pursued in the specific set of circumstances prevailing at the time. The component in question here is also essentially amoral. For our present purposes, "amoral" may be understood as follows: The component's amorality issues from its capacity to be ethically sound as well as unsound. Consequences of ethically pertinent belligerent conduct are readily convertible into material military costs

[74] Robert L. O'Connell, *Of Arms and Men: A History of War, Weapons, and Aggression* (1989), at 104.
[75] *Ibid.*
[76] John Keegan, *The Face of Battle* (1976), at 98.
[77] See von Clausewitz, *supra* note 36, at 187: "An army's military qualities are based on the individual who is steeped in the spirit and essence of [war]; who trains the capacities it demands, rouses them, and makes them his own; who applies his intelligence to every detail; who gains ease and confidence through practice, and who completely immerses his personality in the appointed task".
[78] See *ibid.*, at 102-104, 697-771.

– and benefits.[79] In particular, "amoral" here denotes the idea that affirmatively unethical actions can also be seen as materially competent.[80]

In the next chapter, we will address three major objections that may be raised against this line of reasoning. First, there can be something moral even about evaluating the material necessity or non-necessity of a belligerent act. Second, it is arguably part of a soldier's ethical virtue to fight competently. Third, a soldier's unethical conduct may not really constitute his or her truly professional conduct, all things considered.

[79] Fighting ethically in counterinsurgency exemplifies materially competent and morally beneficial belligerent behaviour. See U.S. Army and Marine Corps, *Counterinsurgency Field Manual* (2007), para. 7-25, at 7-5: "A key part of any insurgent's strategy is to attack the will of the domestic and international opposition. One of the insurgents' most effective ways to undermine and erode political will is to portray their opposition as untrustworthy or illegitimate. These attacks work especially well when insurgents can portray their opposition as unethical by the opposition's own standards. To combat these efforts, Soldiers and Marines treat noncombatants and detainees humanely, according to American values and internationally recognized human rights standards. In [counter-insurgency operations], preserving noncombatant lives and dignity is central to mission accomplishment. This imperative creates a complex ethical environment".

[80] Take the Holocaust and the Rwandan genocide, for example. Assuming that those who committed these atrocities intended to destroy the targeted groups, they were, in their own frighteningly appalling way, quite efficient in exterminating a very large number of victims.