

**LEAVING THE DICE FOR PLAY:
A CRITIQUE OF THE APPLICATION OF THE LAW AND ECONOMICS LENS
TO INTERNATIONAL HUMANITARIAN LAW**

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International humanitarian law remains under-theorised. Eric Posner pioneered the use of law and economics methodology to provide an alternative explanation of international humanitarian law. The present article examines how the use of the cognitive framework underpinning the law and economics (L&E) lens in international humanitarian law (IHL) transforms this legal regime. First of all, the article argues that, although the law and economics methodology accounts for the fact that self-interest is one of the motivating factors behind state action, it does not accommodate the constructivist dimension of international humanitarian law. Furthermore, while the Chicago School has descriptive capacity for the principle of military necessity, it offers a limited analytic framework for understanding the principle of humanity, both of which are equally important when understanding the foundational basis of IHL. Secondly, the article argues that L&E changes how states interpret the purpose of international humanitarian law, the structure of this legal regime and how individuals apply the legal norms on the battlefield. In other words, it alters the balance between military and humanitarian considerations within IHL norms. The rules of targeting will serve as a case study to illustrate some of the problems associated with the application of the L&E lens to IHL, especially how such rules in fact place limitations on the planning and conduct of military operations.

Keywords: international humanitarian law, law and economics, rules of targeting

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I. INTRODUCTION

According to Frédéric Mégret, international humanitarian law (IHL) is an 'anti-theoretical, at times even anti-intellectual discipline'.¹ Specifically:

[T]he dominant understanding of international humanitarian law sees it as above all a pragmatic endeavour, one relatively unperturbed by foundational questions. As such, humanitarianism as an ideology is one that has traditionally foregrounded action, pragmatism, and empathy over ideas, abstraction, and theory.²

¹ Frédéric Mégret, 'Theorising the Laws of War' in Anne Orford and Florian Hoffmann (eds), *The Oxford Handbook of the Theory of International Law* (Oxford University Press 2016) 763.

² Ibid.

There is limited literature theorising the nature of IHL.³ Recently scholars have begun to apply feminist, third world approaches to international law, economic analysis of law⁴ and other methodologies to theorise IHL.⁵ Their aim is to bring new perspectives to this area of law.⁶ Thomas Forster believes that the employment of diverse methodologies allows one to attain a more nuanced understanding of the role of IHL.⁷ Such scholarship 'challenges well-established narratives held dear by sceptics and proponents alike'.⁸ A good example of this is Eric Posner, who applied the law and economics methodology (L&E) to challenge the traditional understanding of IHL as advancing humanitarian values.⁹

This paper scrutinises whether the L&E methodology has descriptive capacity for IHL and may be employed to better understand where the balance between competing values lies within IHL norms. It contributes to existing literature by demonstrating that the application of economic reasoning has limited explanatory value for IHL.¹⁰ The article concentrates on approaches within L&E that are not normatively oriented in that they do not provide for the possibility of non-economic considerations trumping economic considerations on policy grounds.¹¹ For this reason, the article makes the Virginia and the Chicago Schools the focal points of analysis. Since the Yale School permits non-economic values to override economic

³ Ibid.

⁴ Thomas Forster, 'International Humanitarian Law's Old Questions and New Perspectives: on What Law Has Got to Do with Armed Conflict' (2016) 98(3) *International Review of the Red Cross* 995, 997.

⁵ Ibid 1008.

⁶ Ibid.

⁷ Ibid 997.

⁸ Ibid.

⁹ Eric Posner, 'A Theory of the Laws of War' (2002) *John M Olin Law & Economics Working Paper* 160 1, 5.

¹⁰ Ibid 12-13; Eric Posner and Alan Sykes, *Economic Foundations of International Law* (Harvard University Press 2013) 191; Annemarie Balvert, 'Their Own Best Vindication: an Economic Analysis of International Humanitarian Law in the 19th Century' (Master of Laws thesis, Tilburg University 2018) 44.

¹¹ Francesco Parisi, 'Positive, Normative and Functional Schools in Law and Economics' (2004) 18 *European Journal of Law and Economics* 259, 264-65.

considerations,¹² its consideration is beyond the scope of this article. The article discusses how the use of L&E methodology transforms IHL.

The application of L&E excises the psychological, communal and normative dimensions of IHL. Furthermore, its methodology modifies how states would come to understand the purpose and the structure of IHL and revises the cognitive architecture of this area of law. L&E alters how decision-makers balance military and humanitarian considerations and therefore how they apply IHL norms. The rules of targeting will be used as a case study for contextualising the discussion. These rules are designed to enable the parties to a conflict to comply with an obligation to take constant care to spare the civilians from the effects of the conduct of military operations.¹³

The academic significance of the paper is that it demonstrates that the methodological choices scholars make when theorising IHL can have a profound impact on the regime itself. Scholars can facilitate the ability of states to make informed decisions regarding how to develop IHL. They can inform states about how the application of different methodologies bears on the substance of legal norms and the structure of IHL.

This article adopts the following structure. Section II explains the traditional understanding of IHL and its cognitive structure. It demonstrates what roles the principle of military necessity and the principle of humanity have within IHL, and argues that they provide a roadmap for the IHL's cognitive framework and for commanders applying IHL norms. This information serves as a foundation for contrasting how the traditional understanding of IHL differs from an analysis of IHL through the lens of L&E.

Section III introduces the methodology of L&E and illustrates how scholars have applied this methodology to explain IHL. It delineates why the article engages with the Chicago School and the Virginia School but not with the Yale School of L&E. Section IV investigates some of the dimensions which the use of L&E excises from IHL. The shortcoming of the L&E methodology is that it does not account for the collective, psychological and symbolic dimensions of IHL. Instead, it will be argued that the constructivist methodology is a closer match for describing IHL, as L&E does not

¹² Ibid 264.

¹³ UNGA, Res 2675 (1970), UN Doc A/RES/2675 para 3.

accommodate the constructivist dimension of IHL due to its individualistic orientation.

Section V shows that the Chicago School has descriptive capacity for the principle of military necessity but not for the principle of humanity. As such, it has limited explanatory capacity for how IHL balances military and humanitarian values. The rules of targeting here serve as a case study. Section VI synthesises the analysis regarding the manner in which the use of L&E transforms the structure and application of IHL norms. The conclusion discusses how the analysis of IHL through the lens of L&E modifies the underpinnings of this legal regime and the application of IHL norms.

II. THE TRADITIONAL UNDERSTANDING OF IHL'S PURPOSE

In order to enter into the discussion on how the application of the L&E lens to analyse IHL transforms this legal regime it is first necessary to survey the traditional understanding of IHL. In particular, it is necessary to understand the cognitive background and principles that underpin IHL norms and how they relate to one another. The principles of military necessity and humanity, defined in the Preamble to the Saint Petersburg Declaration Renouncing the Use in War of Certain Explosive Projectiles 1868 (Saint Petersburg Declaration),¹⁴ constitute the legal and moral foundation of IHL norms.¹⁵ The two principles determine how individuals apply IHL norms on the battlefield.¹⁶

The Preamble envisages the purpose of IHL in the following manner: 'that the progress of civilization should have the effect of alleviating as much as possible the calamities of war'.¹⁷ In associating the progress of humankind with alleviating human suffering in war, the Preamble to the Saint Petersburg

¹⁴ Declaration Renouncing the Use, in Time of War, of Explosive Projectiles Under 400 Grammes Weight (adopted 11 December 1868, entered into force 11 December 1868) 1 AJIL 95 (Saint Petersburg Declaration) preamble.

¹⁵ Viola Vincze, 'Taming the Untameable: the Role of Military Necessity in Constraining Violence' (2016) 2016(2) ELTE Law Journal 93, 96.

¹⁶ Michael Schmitt, 'Military Necessity and Humanity in International Humanitarian Law: Preserving the Delicate Balance' (2010) 50 Virginia Journal of International Law 795, 796.

¹⁷ *Ibid.*

Declaration places humanity at the heart of the social development of societies worldwide.

First of all, the principle of humanity prohibits 'the infliction of suffering, injury or destruction not actually necessary for the accomplishment of legitimate military purposes'.¹⁸ Secondly, the principle of military necessity qualifies the principle of humanity by permitting a belligerent 'subject to the laws of war, to apply any amount and kind of force to compel the complete submission of the enemy with the least possible expenditure of time, life, and money'.¹⁹ These two principles co-exist in a relationship of 'delicate balance'.²⁰ They embody universal values.²¹ The Preamble to the Saint Petersburg Declaration delineates the relationship between the principles and defines the purpose of IHL.²²

According to Yishai Beer, at the time of its formulation states saw the purpose of the principle of military necessity as constraining the use of military force.²³ At present, however, it may be argued that the principle 'primarily pays lip service to the constraining function it was designed to fulfil, justifying, in fact, almost any belligerent activity'.²⁴ This is the standpoint of Michael Schmitt, who argues that the principle of military necessity does not place actual limitations on the conduct of military operations.²⁵ Rather, it allows the armed forces to refer to military considerations when applying IHL norms.²⁶

Yet, as Beer argues, despite the change in interpretation, the need to constrain the employment of force, from both a military and ethical

¹⁸ United Kingdom Ministry of Defence, *United Kingdom Joint Service Manual of the Law of Armed Conflict* (Oxford University Press 2004) para 2.2.1.

¹⁹ *Judgment of the Nuremberg International Military Tribunal USA v List (The Hostages Case)* (1948) 15 ILR 632.

²⁰ *Ibid.*

²¹ Vincze (n 15) 96.

²² *Ibid.*

²³ Yishai Beer, 'Humanity Considerations Cannot Reduce War's Hazards Alone: Revitalising the Concept of Military Necessity' (2015) 26 *European Journal of International Law* 801, 807.

²⁴ *Ibid* 807.

²⁵ Schmitt (n 16) 799.

²⁶ *Ibid.*

perspective, remains.²⁷ Because resources are scarce, military professionalism requires the armed forces to apply force in a measured manner.²⁸ He consequently advocates that the original restraining role of the principle of military necessity should be strengthened by introducing professional military standards.²⁹ Beer thus diverges from Schmitt in that he advocates for the armed forces to adopt supplementary standards so as to reinvigorate the original function of the principle of military necessity to limit how much force the armed forces may employ.³⁰

The position adopted here is that Beer's interpretation of the principle of military necessity is preferable to that of Schmitt's. The principle stipulates that the amount of force the armed forces use should be consistent with how much force IHL authorises the armed forces to employ.³¹ Had the principle of military necessity only addressed military considerations associated with winning the battle, the reference to the restrictions IHL places on the conduct of hostilities would have been redundant. Support for this argument may be found in state practice. France, for example, interprets the principle of military necessity as authorising only those measures which are 'indispensable' to the accomplishment of the mission.³²

The principles of humanity and military necessity are complementary.³³ The Preamble to the Saint Petersburg Declaration summarises the relationship between the two principles³⁴ by stating that 'the only legitimate object which states should endeavour to accomplish during war is to weaken the military forces of the enemy' and 'to disable the greatest possible number of men

²⁷ Ibid.

²⁸ Ibid 805.

²⁹ Ibid 809.

³⁰ Beer (n 23) 809.

³¹ *The Hostages Case* (n 19).

³² General of the Armed Forces of France, *Summary Note on the Laws Applicable During Armed Conflict* 432/DEF/EMA/OL.2/NP (Chief of the Armed Forces 1992) para 2.4.

³³ United States Department of the Navy, *Law of Naval Warfare NWIP 10-2* (United States Department of the Navy 1955) 2-8; Schmitt (n 16) 798.

³⁴ APV Rogers, 'The Principle of Proportionality' in Howard Hensel (ed), *The Legitimate Use of Military Force: the Just War Tradition and the Customary Law of Armed Conflict* (Ashgate Publishing 2008) 195-96.

[soldiers]'.³⁵ This goal 'would be exceeded by the employment of arms which uselessly aggravate the sufferings of disabled men [soldiers], or render their death inevitable'.³⁶ This is reflected in the viewpoints of Indonesia and New Zealand, both of which stipulate that, when applied in combination, the principles of humanity and military necessity prohibit 'activities which produce suffering out of all proportion to the military advantage to be gained'.³⁷

Despite such commitments, it is hard to determine where exactly the balance between the requirements of humanitarianism and military necessity in IHL lies.³⁸ Due to the absence of such guidelines, it is not only the case that military personnel with different doctrinal backgrounds may disagree on how to balance the competing principles in 'close cases'.³⁹ It also means that scholars have applied various methodologies to theorise IHL, including L&E. The outstanding question of this paper is whether the use of the L&E lens enables scholars to accurately describe IHL and to offer guidance on where the balance between the principles of humanity and military necessity may be found.

III. AN INTRODUCTION TO LAW AND ECONOMICS

The scholarly use of L&E methodology to analyse the conduct of states in the international arena is a relatively recent phenomenon.⁴⁰ To understand the

³⁵ Saint Petersburg Declaration (n 14) preamble.

³⁶ Ibid.

³⁷ New Zealand Defence Force, *Interim Law of Armed Conflict Manual DM 112* (Directorate of Legal Services 1991) para 207; The Commander of the Regional Military Command of Irian Jaya and Maluku, Directive Concerning Human Rights (Indonesian Armed Forces 1995) paras 7(d) and 7(e).

³⁸ International Committee of the Red Cross, *Report on the Practice of Russian Federation* (International Committee of the Red Cross 1997), ch 1.5.

³⁹ International Criminal Tribunal for the Former Yugoslavia, 'Final Report to the Prosecutor by the Committee Established to Review the NATO Bombing Campaign Against the Federal Republic of Yugoslavia' (2000) 94 ILM 1257 para 50.

⁴⁰ William Aceves, 'The Economic Analysis of International Law: Transaction Cost Economics and the Concept of State Practice' (1996) 17 *University of Pennsylvania Journal of International Economic Law* 995, 998-99.

novelty of this approach it is therefore necessary to have a grounding in a L&E methodology, showing how scholars have applied this methodology to the context of IHL. L&E methodology is characterised by the fact that it applies concepts and methods from the field of economics to evaluate whether they have explanatory value for legal norms and legal systems.⁴¹ One of the goals of economics is to maximise wealth.⁴² The present article focuses on examining whether L&E methodology has explanatory value for IHL. It scrutinises how the reference to the market in establishing what value to place on military advantage and harm to civilians modifies the structure of IHL.

L&E encompasses three distinct methodological approaches which share a common foundation.⁴³ The Chicago School, the Yale School and the Virginia School are the three main approaches for analysing institutions and behaviour through an economic lens.⁴⁴ The three schools share a common purpose and use economic theory as an analytic technique.⁴⁵ They view individuals as autonomous rational actors who seek to fulfil their preferences.⁴⁶ As such, individuals are separate from the community they live in.⁴⁷ However, each school of L&E has a distinct methodological approach for analysing the law and evaluating social preferences.⁴⁸

The present article will refer to the Chicago School and to the Virginia School but not to the Yale School when discussing whether L&E can explain IHL. The Yale School is not part of the discussion because it incorporates both economic and non-economic concepts in its analytical framework⁴⁹, and acknowledges that economic language and concepts are distinct from

⁴¹ Parisi (n 11) 259.

⁴² Keith Hylton, 'Law and Economics Versus Economic Analysis of Law' (2018) Boston University School of Law Law and Economics Research Paper Series 17-40 1, 3.

⁴³ Parisi (n 11) 263-64.

⁴⁴ *Ibid* 264-65.

⁴⁵ *Ibid* 263.

⁴⁶ James Buchanan, 'The Domain of Constitutional Economics' (1990) 1 *Constitutional Political Economy* 1, 13-14.

⁴⁷ *Ibid* 13.

⁴⁸ Parisi (n 11) 263-264.

⁴⁹ Guido Calabresi, 'An Exchange: About Law and Economics: a Letter to Ronald Dworkin' (1980) 8 *Hofstra Law Review* 553, 558.

other normative concepts.⁵⁰ Importantly, it places economic goals below higher-order goals, such as justice.⁵¹ Since the Yale School allows normative values to trump economic goals,⁵² it is unsuitable for analysing whether economic reasoning has descriptive capacity for IHL. It will therefore not be considered directly in what follows. However, the article will analyse briefly why economic theories which incorporate non-economic reasoning lack descriptive capacity for IHL.

The main focus of this article will thus be on the Chicago School and the Virginia School of L&E. First of all, the Chicago School is relevant because a close analysis of the first scholarly work to theorise IHL through the lens of L&E shows that it draws extensively on the Chicago School as an analytic framework.⁵³ Secondly, the 'public choice theory' of the Virginia School will be examined, in order to determine the explanatory power of L&E to IHL.

Eric Posner was the first scholar to employ L&E to provide an alternative explanation of IHL, and his scholarship epitomises the application of the Chicago School to understand IHL.⁵⁴ He rejects the conventional explanation of IHL as serving humanitarian values⁵⁵ and argues that states are self-interested entities.⁵⁶ They are preoccupied with how many resources to invest in production of goods for domestic consumption and how many resources to spend on military capability.⁵⁷

States maximise the joint value of making investments in the production of goods and military capabilities under two conditions.⁵⁸ First of all, states need to place limitations on how much they invest in strengthening military capability.⁵⁹ They thus conclude agreements to limit specific arms to achieve

⁵⁰ Ibid.

⁵¹ Ibid.

⁵² Ibid.

⁵³ Eric Posner, 'A Theory of the Laws of War' (n 9) 1 and 12-13.

⁵⁴ Ibid.

⁵⁵ Ibid 5.

⁵⁶ Ibid 3.

⁵⁷ Ibid 6.

⁵⁸ Ibid 8.

⁵⁹ Ibid.

this objective.⁶⁰ Secondly, as armed conflict is unattractive to states because it destroys cities and factories⁶¹, they need to reduce the 'efficiency of military technology'.⁶² To achieve this, they adopt IHL norms to limit their investment in military conflict.⁶³ Such limitations on hostile conduct allow states to increase production by reducing the number of involved civilians and demobilised soldiers.⁶⁴ As a result, states preserve greater levels of production of goods and increase the levels of consumption among the civilian population.⁶⁵ The reduction of deaths among civilians increases productive capital because civilians who are uninjured are able to produce goods for society to consume.⁶⁶

Eric Posner drew on the Chicago School in order to construct an analysis of state behaviour. In particular, he was influenced by Richard Posner,⁶⁷ who developed the 'principle of wealth maximisation' to describe how a decision-maker guided by economic goals would formulate legal rules.⁶⁸ The principle of wealth maximisation states that such legal rules maximise society's 'wealth'⁶⁹ in the form of 'the total value of all "economic" and "non-economic" goods and services' circulating in society.⁷⁰ They achieve this by allocating a resource to the person who is willing to pay a higher price.⁷¹ In order to claim a right to a resource an individual should produce those goods

⁶⁰ Ibid.

⁶¹ Ibid 13.

⁶² Ibid.

⁶³ Ibid 3.

⁶⁴ Ibid 12.

⁶⁵ Ibid 20.

⁶⁶ Ibid 12.

⁶⁷ Parisi (n 11) 264.

⁶⁸ Richard Posner, 'Utilitarianism, Economics and Legal Theory' (1979) 8 *Journal of Legal Studies* 103, 120; Richard Posner 'A Reply to Some Recent Criticisms of the Efficiency Theory of Common Law' (1981) 9 *Hofstra Law Review* 775, 775.

⁶⁹ Richard Posner, 'The Value of Wealth: a Comment on Dworkin and Kronman' (1980) 9 *Journal of Legal Studies* 243, 243.

⁷⁰ Richard Posner, 'Wealth Maximisation and Tort Law: a Philosophical Inquiry' in David Owen (ed), *Philosophical Foundations of Tort Law* (Clarendon Press 1995) 99.

⁷¹ Posner, 'The Value of Wealth' (n 69) 243.

for which other individuals are prepared to pay more than had the producer used the resources to produce an alternative good or service.⁷²

Eric Posner's conception of states choosing how to maximise the joint value from investing resources into competing activities in the production of military and non-military goods⁷³ maps onto the principle of wealth maximisation developed by Richard Posner. His work can be interpreted as explaining IHL in terms of maximising the wealth of states. More recently Alan Sykes and Annemarie Balvert have written in support of Eric Posner's conception of L&E as explaining IHL.⁷⁴ Their analysis is based on the Chicago School. Since the explanation of IHL as reducing the efficiency of military technology⁷⁵ rather than as pursuing humanitarian goals⁷⁶ challenges the traditional conception of IHL, it is necessary to investigate whether a L&E approach to analysis changes its object of study.

In addition to the principle of wealth maximisation developed by the Chicago School, the 'public choice theory' of the Virginia School⁷⁷ is suitable for analysing whether L&E explains IHL. The Virginia School focuses on understanding collective action in the realm of politics, in terms of how citizens develop rules to limit the authority of the state.⁷⁸ What distinguishes the Virginia School from other schools of L&E is that it focuses on how individuals make choices relating to the establishment of a constitution to govern society's affairs rather than on how individuals can allocate scarce resources among competing goals.⁷⁹ What unifies the Virginia School with other L&E schools is that it uses exchange to understand human

⁷² Ronald Coase, 'The Problem of Social Cost' (1960) 3 *The Journal of Law and Economics* 1, 4-5.

⁷³ Eric Posner, 'A Theory of the Laws of War' (n 9) 8.

⁷⁴ Posner and Sykes (n 10) 191; Balvert (n 10) 44.

⁷⁵ Eric Posner, 'A Theory of the Laws of War' (n 9) 8.

⁷⁶ *Ibid* 5.

⁷⁷ Parisi (n 11) 265.

⁷⁸ James Buchanan, 'Public Choice: Politics without Romance' (2003) 19 *Policy* 13, 15.

⁷⁹ Buchanan, 'The Domain of' (n 46) 5-6.

interaction.⁸⁰ Moreover, individuals choose rules among alternative sets of rules⁸¹ with a view to maximising their preferences.⁸²

The scholarship of Jeffrey Dunoff and Joel Trachtman is an example of scholars using the type of reasoning present in the Virginia School to describe the process through which states formulate treaty norms in public international law.⁸³ They describe treaty-making in terms of states entering into a transaction to trade 'components of political power'.⁸⁴ This transaction resembles a market transaction⁸⁵ and enables states to maximise their preferences,⁸⁶ although they may forgo something in reaching an agreement, the agreement confers a benefit on them.⁸⁷ The authors analyse how states establish common rules to govern their collective affairs and limit their own authority through a process of exchange. This claim will be critically analysed at a later stage.

The Virginia School thus stipulates that individuals may decide to allow collective values and interests to influence them.⁸⁸ In contrast, the Chicago School treats the maximisation of wealth as enabling individuals to achieve other goods, such as happiness and freedom.⁸⁹ Since IHL claims to embody universal values⁹⁰ and is a product of the states' collective action, the question remains whether the Virginia School has descriptive value for how states formulated IHL.

Although there exist some important distinctions between the Chicago and Virginia Schools, for the purposes of the present argument they will be referred to interchangeably as representatives for the L&E methodology, unless otherwise stated. Importantly, both approaches accept the

⁸⁰ Ibid 8.

⁸¹ Ibid 9.

⁸² Ibid 11.

⁸³ Jeffrey Trachtman and Joel Dunoff, 'Economic Analysis of International Law' (1999) 24 *Yale Journal of International Law* 1, 6.

⁸⁴ Ibid 13-14.

⁸⁵ Ibid.

⁸⁶ Ibid.

⁸⁷ Ibid 14.

⁸⁸ Ibid 7.

⁸⁹ Posner, 'The Value of Wealth' (n 69) 244.

⁹⁰ Saint Petersburg Declaration (n 14) preamble.

fundamental assumption that social interaction between individuals and states should be understood through the lens of economic exchange. An awareness of L&E methodology now makes it possible to trace what dimensions of IHL become excised when one theorises it through the lens of L&E.

IV. PROBLEMATISING THE USE OF THE ECONOMIC COGNITIVE FRAMEWORK IN IHL

Law and economics can be characterised as a cognitive framework for understanding the world as well as for structuring relationships. However, as Dan Danielsen explains, the L&E understanding is in fact built on particular assumptions, expectations and values.⁹¹ Many of these become problematic when applied to the context of IHL.

1. The Role of the International Community

First of all, the individualist methodology of L&E⁹² is insufficient to account for how IHL conceptualises the relationship between states. All L&E schools assume that individuals are autonomous rational actors who seek to fulfil their preferences.⁹³ The public choice theory acknowledges that collective interests may shape how individuals make choices.⁹⁴ However, it treats the cumulative choices of individuals, rather than the community as a whole, as a unit of analysis.⁹⁵ This has led Andreas Paulus to criticise L&E for not accounting for the fact that international law operates as a normative force in shaping the formation of states' interests.⁹⁶

⁹¹ Dan Danielsen, 'International Law and Economics: Letting Go of the "Normal" in Pursuit of an Ever-Elusive Real' in Anne Orford and Florian Hoffmann (eds), *The Oxford Handbook of the Theory of International Law* (Oxford University Press 2016) 458 and 462.

⁹² Buchanan, 'The Domain of' (n 46) 13-14.

⁹³ *Ibid.*

⁹⁴ *Ibid* 16-17.

⁹⁵ *Ibid* 7.

⁹⁶ Andreas Paulus, 'Potential and Limits of the Economic Analysis of International Law: a View From Public International Law' (2009) 165 *Journal of Institutional and Theoretical Economics* 170, 173.

The individualistic lens of L&E for analysing state conduct is inconsistent with the important role references to the international community and shared values play in IHL. The fact that the Virginia School provides that actors may choose to be influenced by collective values⁹⁷ does not mitigate this concern. IHL appeals to universally shared values⁹⁸ as part of its claim to legitimacy. The Martens Clause states that if IHL is silent on a matter then individuals have protection under the principles of international law which 'result from the usages established between civilized nations, from the laws of humanity, and the requirements of the public conscience'.⁹⁹

The references in the Martens Clause to the laws of humanity and the requirements of 'public conscience'¹⁰⁰ appeal to the core ethical values that states and individuals worldwide share. The Preamble to the Saint Petersburg Declaration similarly links the goal of 'alleviating as much as possible the calamities of war' to the shared goal of achieving the progress of civilisations.¹⁰¹ While the meaning of the term civilisation has evolved,¹⁰² at its core this term refers to the development of human societies culturally, morally and in other ways.¹⁰³ By conceiving of states as atomistic actors rather than as actors who are part of an international community, the Virginia and the Chicago Schools rule out some of the functions of IHL.

⁹⁷ Buchanan, 'The Domain of' (n 46).

⁹⁸ Mégret (n 1) 765.

⁹⁹ The Hague Convention (II) with Respect to the Laws and Customs of War on Land and its Annex: Regulations Concerning the Laws and Customs of War on Land 1899 (adopted 29 July 1899, entered into force 9 April 1900) 32 Stat 1803 (The Hague Convention II 1899) preamble; *In re Krupp and others* (1948) 15 Annual Digest and Reports of Public International Law Cases 620.

¹⁰⁰ *Ibid.*

¹⁰¹ Saint Petersburg Declaration (n 14) preamble.

¹⁰² Liliana Obregón Tarazona, 'The Civilized and the Uncivilized' in Anne Peters and Bardo Fassbender (eds), *The Oxford Handbook of the History of International Law* (Oxford University Press 2012) 917-42.

¹⁰³ Yukichi Fukuzawa, *An Outline of a Theory of Civilization* (David Dilworth and G Cameron Hurst III tr, Columbia University Press 1875) 45; Cristian Violatti, 'Civilization', *Ancient History Encyclopedia* (2014) <www.ancient.eu/civilization> accessed 19 February 2019.

2. IHL's Symbolic and Communicative Value

One of the functions L&E exises are the symbolic and communicative dimensions of IHL. The references states make to commonly shared values in IHL instruments should be understood as having a symbolic function. When one changes the symbolic function of IHL, one also changes the cognitive framework underpinning this legal regime. The fact that states concluded a legal regime of IHL notwithstanding the plurality of variations within local cultures corroborates the fact that IHL symbolises the values states share as members of an international community.

René Provost explains the central function symbolism has in IHL.¹⁰⁴ To develop this argument he examines the motivations of states surrounding the choice of symbols to designate medical units.¹⁰⁵ For instance, Turkish forces used the red crescent to identify medical relief teams in 1876 because they found the use of the red cross offensive.¹⁰⁶ The fact that the Turkish forces contested the type of the symbol to be employed to designate protected objects but not the substance of IHL norms¹⁰⁷ supports the assertion that IHL embodies the values states hold as members of an international community. In particular, Turkey became party to IHL treaties¹⁰⁸ notwithstanding the fact that the Quran contains restrictions on the conduct of hostilities.¹⁰⁹ Furthermore, states adopted the Third Additional Protocol to the 1949 Geneva Conventions to designate the red crystal as a symbol¹¹⁰

¹⁰⁴ René Provost, 'The International Committee of the Red Widge? The Diversity Debate and International Humanitarian Law' (2007) 40(2) *Israel Law Review* 614, 621.

¹⁰⁵ *Ibid* 615.

¹⁰⁶ John Hutchinson, *Champions of Charity: War and the Rise of the Red Cross* (Westview Press 1996) 138.

¹⁰⁷ Provost (n 104) 617-18.

¹⁰⁸ *Ibid* 617.

¹⁰⁹ Hadīths numbers 17932, 17933, 17934, 17935, 17936 and 17937, quoted in Ahmad ibn al-Husayn ibn Alī ibn Mūsā al-Bayhaqī, *Sunan al-Bayhaqī al-Kubrā*, vol 9 (Maktabah Dār al-Bāz 1994) 90; AM Al-Dawoody, 'War in Islamic Law: Justifications and Regulations' (PhD Thesis, University of Birmingham 2009) 201-12.

¹¹⁰ Protocol Additional to the Geneva Conventions of 12 August 1949, and Relating to the Adoption of an Additional Distinctive Emblem (Protocol III) 2005

with a view to communicating the universal nature of IHL. As Provost explains, '[t]he crystal was selected for its lack of cultural baggage in any culture'.¹¹¹ Since states concluded a separate treaty to stipulate the use of a neutral emblem, they recognised that the symbolism of universality is an important dimension of IHL which has a communicative function.

The symbolism of IHL is found in its animating spirit, cognitive framework and in how it navigates diversity. Robert Cover's work shows that the language states selected for formulating IHL norms is closely connected to and illuminates the cognitive framework underpinning IHL. Cover describes the law as being more than a collection of rules.¹¹² Instead, it employs particular narratives when constructing legal rules in order to implement a particular normative vision of the world.¹¹³ Margaret Radin similarly views the law as serving a 'powerful conceptual – rhetorical – discursive force'¹¹⁴ which influences how we understand the world.¹¹⁵

The language states chose when formulating IHL norms reflects how IHL conceives of the world, what set of values it communicates, what type of ideology it advances and how it envisages the relationship between states. Going beyond the legal context Valentin Voloshinov examines the manner in which the choice of language determines what values and ideology come to shape social life.¹¹⁶ This has its roots in the nature of human relations; language, culture and the construction of meaning are at the centre of what it means to be human.¹¹⁷ Groups need a distinctive collective identity and a shared understanding of the world in order to carry out coordinated

(adopted 8 December 2005, entered into force 14 January 2007) (2006) 45 ILM 555 art 2(2).

¹¹¹ Provost (n 104) 620.

¹¹² Robert Cover, 'Foreword: Nomos and Narrative' (1983) 97 *Harvard Law Review* 4, 4-5.

¹¹³ *Ibid* 5.

¹¹⁴ Margaret Jane Radin, 'Compensation and Commensurability' (1993) 43 *Duke Law Journal* 56, 83.

¹¹⁵ *Ibid*.

¹¹⁶ Valentin Voloshinov, *Marxism and the Philosophy of Language* (Ladislav Matejka and Irwin Robert Titunik tr, Harvard University Press 1973) 98.

¹¹⁷ Neil Fligstein and Doug McAdam, *A Theory of Fields* (Oxford University Press 2012) 35.

activities.¹¹⁸ The coordinated activity enables the group to solve problems and to structure social life.¹¹⁹

As such, the words the states use for framing IHL norms should be viewed as having significance as they disseminate a particular set of values and propagate an ideology. They enable states to maintain a social order through the creation of an international community and the norms come to shape what array of choices states regard as being available to them. This account of IHL is consonant with a constructivist approach. Constructivists view states as generating shared understandings and knowledge through interactions.¹²⁰ The social norms which emerge shape how states regard themselves, their interests and other actors.¹²¹

A potential critique of the argument that one of the functions of IHL is to create a collective identity and values to enable states to carry out coordinated activities is that states act in self interest. On this reasoning, IHL treaties lay down the foundation, but states give effect to cultural variation and their separate interests by offering alternative interpretations of the relevant IHL provisions.¹²² These rival interpretations are expressions of states struggling with each other for power.¹²³ As David Kennedy points out, law is 'a more subtle and dispersed practice' through which people continuously compete with one another for the pre-eminence of certain actions over others.¹²⁴

This critique has merit in part. Even though self-interest is one of the guiding motivations of states, in the context of IHL this element is in constant dialogue and tension with IHL's constructivist dimension. The fact that IHL norms are premised on the balancing of the principles of military necessity

¹¹⁸ Ibid 37-38.

¹¹⁹ Ibid 44.

¹²⁰ Jutta Brunnée and Stephen Toope, *Legitimacy and Legality in International Law: an Interactional Account* (Cambridge University Press 2010) 12.

¹²¹ Ibid.

¹²² Provost (n 104) 641.

¹²³ Brunnée and Toope (n 120) 23.

¹²⁴ David Kennedy, 'Lawfare and Warfare' in James Crawford and Martti Koskenniemi (eds), *The Cambridge Companion to International Law* (Cambridge University Press 2012) 182.

and humanity illustrates the fact that states continuously negotiate the competing imperatives of self-interest and collective values. Even though scholars make attempts to interpret IHL in a manner which elevates pragmatism, such approaches lack support within the legal doctrine. To illustrate, Iddo Porat and Ziv Bohrer maintain that states are permitted to place greater weight on the life of their own civilians than on the lives of enemy civilians.¹²⁵ However, since customary international law requires equal treatment of individuals¹²⁶ the creation of a hierarchy between individuals based on their nationality is inconsistent with IHL.

The deficiency of L&E is that it accounts only for the role of self-interest in guiding state conduct. By doing so it disregards the vital role played by the international community in shaping and maintaining shared values, values in light of which state practice must ultimately be understood. The Virginia School does not go far enough to accommodate this aspect. While it does allow states to choose to be influenced by the particular values of the collective¹²⁷ it assumes that actors 'make rational choices in accordance with individually autonomous value scales'.¹²⁸ The rejection by the Virginia School of the position that there are overarching values guiding individual conduct¹²⁹ does not account for the constructivist dimension of IHL. States deliberately referred to commonly shared values when drafting IHL treaties. These shared values provide guidance to states regarding what choices are available to them when they apply and develop IHL norms. It is therefore not the case that states "cherry pick" what values of the international community to be guided by when developing IHL norms, both through state practice and through concluding new treaties.

¹²⁵ Iddo Porat and Ziv Bohrer, 'Preferring One's Own Civilians: May Soldiers Endanger Enemy Civilians More Than They Would Endanger Their State's Civilians' (2015) 97 *The George Washington International Law Review* 99, 153.

¹²⁶ Geneva Convention (IV) Relative to the Protection of Civilian Persons in Time of War 1949 (adopted 12 August 1949, entered into force 21 October 1950) 75 UNTS 287 (Geneva Convention IV 1949) art 3; Jean-Marie Henckaerts and Louise Doswald-Beck, *Customary International Humanitarian Law*, vol 1 (Cambridge University Press 2005) 308-09.

¹²⁷ Buchanan, 'The Domain of' (n 46) 7.

¹²⁸ *Ibid* 15.

¹²⁹ *Ibid* 14.

3. *The Role of IHL in Preserving the Social Fabric Within Societies*

Eric Posner's use of L&E to interpret IHL as enabling states to preserve productive capacity,¹³⁰ as well as to optimally allocate the resources between economic and military production,¹³¹ has limited explanatory value for IHL. Although states may have considered how to best preserve their productivity when formulating IHL, it does not follow from this that states use economic considerations as a primary motivation for adopting limitations on the conduct of hostilities. States call on shared ethical values in the Martens Clause and the Saint Petersburg Declaration as a means to construct a fabric which holds the international community together and prescribes how interactions take place. The maintenance of the fabric of society has a particular significance in times of armed conflict because the conflict represents a different space for societies to occupy in comparison with peacetime.

The following example illustrates the significance of shared values in enabling IHL to fulfil its function. Martin Daughtry uses the term 'thanatosonics'¹³² to describe the experience of individuals during an armed conflict.¹³³ Because individuals want to survive, their perception narrows during an armed conflict.¹³⁴ The sounds of explosion inflict psychological damage and limit how individuals perceive the world.¹³⁵ Scientific studies demonstrate that the experience of catastrophic, violent and traumatic events raises the likelihood of individuals developing psychiatric illnesses.¹³⁶ The stress and the altered perception creates a possibility that individuals may put self-preservation above the welfare of other individuals.

¹³⁰ Eric Posner, 'A Theory of the Laws of War' (n 9) 12-13 and 20.

¹³¹ Ibid 8.

¹³² Thanatos is the personification of death in Greek. The term thanatosonics alludes to the sound causing death. Matt Stefon, 'Thanatos', *Encyclopaedia Britannica* (2019) <www.britannica.com/topic/Nyx> accessed 20 October 2019.

¹³³ Martin Daughtry, 'Thanatosonics: Ontologies of Acoustic Violence' (2014) 32(2) *Social Text* 119 25, 39.

¹³⁴ Ibid.

¹³⁵ Ibid 40-41.

¹³⁶ George Bonanno and others, 'Weighing the Costs of Disaster: Consequences, Risks and Resilience in Individuals Families and Communities' (2010) 11(1) *Psychological Science in the Public Interest* 1, 1.

The language of universally shared 'public conscience'¹³⁷ has communicative power for preventing citizens from sinking to a state of otherness. In the state of otherness violence becomes a yardstick for determining who is entitled to personal integrity, rights and entitlements to resources. Since economics is designed to facilitate the ability of individuals to fulfil their preferences,¹³⁸ it lacks the vocabulary for justifying why individuals should forgo their preferences to benefit others even when there is no immediate benefit for doing so.

Since the Chicago School¹³⁹ and the Virginia School¹⁴⁰ view human interactions as an exchange, they do not explain the content of some IHL norms. An example is an obligation on soldiers to expose themselves to danger in order to distinguish between civilians and combatants.¹⁴¹ In contrast, the reference to universal values¹⁴² provides a means for IHL to justify why individuals should elevate higher-order values above their immediate self-interest. L&E does not account for the fact that IHL enables states to maintain the social fabric within their societies and to fulfil the inherent psychological need of human beings for meaning. The conception of shared identity and values shaping what array of conduct actors view as available to them is absent from L&E.

4. IHL Limits the Use of Economic Reasoning

A possible counterargument to L&E having incomplete explanatory capacity for IHL is that IHL rhetoric diverges from states' motivations. For instance, states refer to the progress of civilisations in the Preamble to the Saint Petersburg Declaration as a justification for alleviating suffering in armed conflict.¹⁴³ During the nineteenth century Western states waged wars in

¹³⁷ The Hague Convention II 1899 (n 99) preamble.

¹³⁸ John Sloman, *Economics* (6th edn, Prentice Hall 2006) 4.

¹³⁹ Richard Posner, 'Wealth Maximisation Revisited' (1985) 2 *Notre Dame Journal of Law Ethics and Public Policy* 85, 92.

¹⁴⁰ Buchanan, 'The Domain of' (n 46) 8.

¹⁴¹ United Kingdom Ministry of Defence (n 18) 82, fn 202.

¹⁴² Mégret (n 1) 765.

¹⁴³ Saint Petersburg Declaration (n 14) preamble.

order to make profits and to consolidate their power.¹⁴⁴ They invoked the term "civilisation" to justify launching the wars as part of the rhetoric of spreading culture, knowledge and progress.¹⁴⁵

The scholarship of Chris af Jochnick and Roger Normand provides further evidence for divergence between what states say and the motivations behind their actions. They maintain that states interpret IHL norms limiting the conduct of hostilities in a manner that elevates military imperatives above humanitarian considerations.¹⁴⁶ In other words, states use IHL as a tool to legitimise violence rather than to humanise armed conflict.¹⁴⁷ According to the two authors:

War has long been limited largely by factors independent of the law. For complex military, political, and economic reasons, belligerents tend to use the minimal force necessary to achieve their political objectives. Force beyond that point - gratuitous violence - wastes resources, provokes retaliation, invites moral condemnation and impedes post-war relations with the enemy nation.¹⁴⁸

The discrepancy between what states say and do points to the undesirability of attempting to reduce IHL to simple accounts. Contrary to Hersch Lauterpacht, IHL is not 'almost entirely humanitarian'.¹⁴⁹ Neither is it a tool for legitimising violence. Rather, IHL specifies how states should mediate self-interest and the constructivist dimension of IHL.

Although states do apply economic thinking when formulating policy and although policy has influence on how the armed forces apply IHL, IHL limits the place economic reasoning has within its norms. The field of 'strategic

¹⁴⁴ Ellen Sebring 'Civilization & Barbarism: "The White Man's Burden" (1898–1902) Cartoon Commentary' (*Centre for Research on Globalisation*, 9 July 2015) <www.globalresearch.ca/civilization-barbarism-the-white-mans-burden-1898-1902/5461424> accessed 14 February 2019.

¹⁴⁵ Ibid.

¹⁴⁶ Chris af Jochnick and Roger Normand, 'The Legitimation of Violence: a Critical History of the Laws of War' (1994) 35(1) *Harvard International Law Journal* 49, 50.

¹⁴⁷ Ibid.

¹⁴⁸ Ibid 53.

¹⁴⁹ Hersch Lauterpacht, 'The Problem of the Revision of the Law of War' (1952) 29 *British Yearbook of International Law* 360, 363–64.

studies¹⁵⁰ is dedicated to studying how states can use military power to achieve policy objectives.¹⁵¹ It stipulates that states should aim to achieve their goals 'within a reasonable timeframe' and 'at a reasonable cost'.¹⁵² These goals reflect economic reasoning. This is because they are premised on finding an optimum balance between the inputs and the outputs in the form of military gain. The content of the overarching strategy influences how commanders formulate military strategy and carry out military operations.¹⁵³ However, although states may apply economic thinking when they formulate policy and policy has influence on how the armed forces apply IHL, IHL limits the place that economic reasoning has within its norms. IHL does not address explicitly the strategic level of war.¹⁵⁴ Because IHL provides the parameters for the potential interpretation of its norms, it delineates whether and to what extent economic reasoning and strategic goals may influence how parties to the conflict apply IHL norms.

Whether states formulate the overarching strategy with a view to widening or reducing the scope of protection conferred on individuals enjoying immunity from attack depends on the context. For example, Martin Shaw proffers that Western states manage the political risks of losing domestic and international support for a military campaign when issuing guidance to commanders regarding how to carry out military operations.¹⁵⁵ States manage the political risk by reducing soldier casualties, civilian casualties¹⁵⁶ and by influencing the way in which the media portrays the military campaign.¹⁵⁷

This strategic consideration led to the United States requiring its armed forces to assume greater risk during counterinsurgency operations than in

¹⁵⁰ David Lonsdale, 'Strategy' in David Jordan and others (eds), *Understanding Modern Warfare* (Cambridge University Press 2008) 17-18.

¹⁵¹ Ibid.

¹⁵² Ibid 19.

¹⁵³ Yishai Beer, 'Military Strategy: the Blind Spot of International Humanitarian Law' (2017) 8 *Harvard National Security Journal* 333, 373.

¹⁵⁴ Ibid 358.

¹⁵⁵ Martin Shaw, *The New Western Way of War: Risk-Transfer and its Crisis in Iraq* (Polity Press 2005) 98.

¹⁵⁶ Ibid.

¹⁵⁷ Ibid 92-93.

other types of contexts.¹⁵⁸ This is an example of policy considerations resulting in commanders interpreting IHL norms more generously and in taking more measures to reduce harm to civilians than is legally required. In comparison, when the United States dropped the atomic bombs on Hiroshima and Nagasaki during World War II it referred to the strategic level of war to justify the destruction of the two cities.¹⁵⁹ The United States maintained that many more civilians would have died had they deployed ground troops.¹⁶⁰

In the case of *Shimoda and others v the State* the Tokyo District Court rejected the argument that states could engage in 'total war' because technology did not allow them to distinguish between civilians and military objectives.¹⁶¹ A concept of 'total war' would allow the state to treat every Japanese as a combatant, thereby permitting the targeting of the entire population.¹⁶² The court found that the American armed forces failed to distinguish between civilian objects and military objectives in dropping atomic bombs on Hiroshima and Nagasaki.¹⁶³ This case illustrates that there are limits to how broadly states may interpret IHL in order to legitimise violence and to advance policy goals.

In these examples the states in question are clearly attempting to balance the requirements of the principle of military necessity with that required by the principle of humanity. The work of Eric Posner has limited value for a better understanding of IHL as a whole because it only provides a deeper understanding of the former.

Economic reasoning and the focus of strategic studies on achieving policy goals through military means do indeed have descriptive value for the principle of military necessity. Posner views states as making a decision on

¹⁵⁸ United States Army, *The US Army Marine Corps Counterinsurgency Field Manual* (Marine Corps Warfighting Publication No 3-33.5, University of Chicago Press 2007) paras 7.5-7.6.

¹⁵⁹ William Fenrick, 'The Rule of Proportionality and Protocol in Conventional Warfare' (1982) 98 *Military Law Review* 91, 121-22.

¹⁶⁰ Basel Liddell Hart, *History of the Second World War* (London Cassell 1970) 692.

¹⁶¹ *Shimoda and others v the State* (1964) 32 *ILR* 626.

¹⁶² *Ibid.*

¹⁶³ *Ibid.*

how to allocate resources between competing uses,¹⁶⁴ several examples of which may be mentioned. Decision-makers refer to military science and to the principle of military necessity when deciding how to allocate resources; states refer to strategic studies to enable them to achieve policy goals 'within a reasonable timeframe' and 'at a reasonable cost'.¹⁶⁵ The principle of military necessity is concerned with the allocation of military resources to enable the commander to achieve the goal of winning the military operation; it thus permits the commander to disable the greatest number of soldiers using the smallest amount of resources and time.¹⁶⁶

This task of winning the military operation with a minimum expenditure of resources¹⁶⁷ arguably parallels the discourse of strategy of achieving the desired goal 'at a reasonable cost'.¹⁶⁸ This interpretation of the principle of military necessity thus have parallels with economic reasoning. Economics is concerned with how to allocate resources in such a way as to fulfil the preferences of society.¹⁶⁹ It prescribes that resources should be allocated in a manner that results in the highest possible value of output, or alternatively when 'a given output is produced using the lowest possible value of inputs'.¹⁷⁰ The economic goal of extracting the maximum benefit from limited resources is present in strategic studies and the principle of military necessity.

However, the existence of this parallel does not lead to a conclusion that L&E explains IHL. The reference to how states can achieve the greatest military advantage with the minimum expenditure of time and resources omits the fact that the principle of military necessity is qualified by a reference to the requirement to comply with IHL. Since IHL norms reflect a balance between the principles of military necessity and humanity,¹⁷¹ it would need to be shown that L&E explains how IHL balances competing values. What is more, the fact that L&E does not account for the constructivist dimension of IHL and excises the psychological dimension from this legal regime points to the

¹⁶⁴ Eric Posner 'A Theory of the Laws of War' (n 9) 12.

¹⁶⁵ Lonsdale (n 150) 19.

¹⁶⁶ *The Hostages Case* (n 19).

¹⁶⁷ *Ibid.*

¹⁶⁸ Lonsdale (n 150) 19.

¹⁶⁹ Sloman (n 138) 4.

¹⁷⁰ *Ibid.*

¹⁷¹ Schmitt (n 16) 796.

need to examine whether L&E has descriptive value in the context of IHL. The next section will use the rules of targeting as a case study to evaluate whether L&E explains the structure of IHL norms and the manner in which commanders balance competing values.

V. A CASE STUDY OF LAW AND ECONOMICS IN IHL

The use of the Chicago School provides a more fruitful avenue of inquiry than the Virginia School for analysing whether the L&E has descriptive capacity for the structure of IHL. This stems from the fact that the Virginia School focuses on the process through which actors arrive at rules placing restrictions on their interactions through an exchange in order to derive a net benefit.¹⁷² In contrast, the Chicago School focuses on how norms premised on the economic rationale are structured. Since there is state practice raising the question of whether the structure of the rules of targeting can be explained by reference to the Chicago School, these rules are used as a case study. The principle of distinction, the rule of target verification and the principle of the least feasible damage are considered. Since the latter two norms require commanders to balance military and humanitarian considerations when applying the rules¹⁷³ they are the subject of greater attention.

1. *An Introduction to the Rules of Targeting*

The rules of targeting are underpinned by three primary norms. First of all, the rule of target verification requires commanders to do everything 'feasible' to verify that the prospective target is a combatant, an individual who takes a direct part in hostilities or a military objective.¹⁷⁴ The rule imposes an obligation on the attacker to gather intelligence and to take appropriate

¹⁷² Buchanan, 'The Domain of' (n 46) 4.

¹⁷³ Office of the Judge Advocate General, *The Law of Armed Conflict at the Operational and Tactical Level* (National Defence Headquarters, 1999), 4-2 and 4-3, paras 17-18.

¹⁷⁴ Protocol Additional to the Geneva Conventions of 12 August 1949, and Relating to the Protection of Victims of International Armed Conflicts (Protocol I) 1977 (adopted 8 June 1977, entered into force 7 December 1978) 1125 UNTS 3 (API 1977) art 57(2)(a)(i).

measures to verify the nature of the target.¹⁷⁵ IHL further imposes an obligation to take precautionary measures on individuals who plan or decide on an attack,¹⁷⁶ as those individuals occupy a position in the military hierarchy. To illustrate, Switzerland maintains that individuals in command of a battalion or a group are best positioned to consider what precautionary measures are feasible.¹⁷⁷

Secondly, commanders apply the rule of target verification against the background of the obligation of the armed forces to observe the principle of distinction. The principle of distinction imposes an obligation on combatants to distinguish at all times between civilians and civilian objects on the one hand, and between combatants and military objectives on the other.¹⁷⁸

Thirdly, the 'principle of the least feasible damage'¹⁷⁹ obliges commanders to 'take all feasible precautions in the choice of means and methods of attack with a view to avoid, or minimise, incidental loss of civilian life, injury to civilians and damage to civilian objects'.¹⁸⁰ The term 'feasible' has identical meaning in the context of the rule of target verification and the principle of the least feasible damage.¹⁸¹ It refers to measures which it is 'practicable or practically possible' to take in the circumstances.¹⁸² The commander needs to balance both humanitarian and military considerations in assessing what measures are feasible to take.¹⁸³ The focus is on how a 'reasonable' person

¹⁷⁵ United Kingdom Ministry of Defence (n 18) para 13.32.

¹⁷⁶ API 1977 (n 174) art 57(2).

¹⁷⁷ Switzerland, Declaration Made Upon Signature of AP I 1977, 12 December 1977, para 1, reprinted in Jean-Marie Henckaerts and Louise Doswald-Beck, *Customary International Humanitarian Law*, vol 2 (Cambridge University Press 2005) 358.

¹⁷⁸ API 1977 (n 174) art 48.

¹⁷⁹ Yves Sandoz, 'Commentary' in Andrew Wall (ed), *Legal and Ethical Lessons of NATO's Kosovo Campaign*, vol 78 (Naval War College 2002) 278.

¹⁸⁰ API 1977 (n 174) art 57(2)(a)(ii).

¹⁸¹ France, Reservations and Declarations Made Upon Ratification of AP I 1977, 11 April 2001, para 3, reprinted in Henckaerts and Doswald-Beck vol 2 (n 177) 357.

¹⁸² See the statements the United Kingdom, Germany and Canada made upon ratifying API 1977, reprinted in Henckaerts and Doswald-Beck vol 2 (n 177) 357-358.

¹⁸³ *Ibid.*

would have deliberated in evaluating the adequacy of precautionary measures.¹⁸⁴ In practice, commanders 'have some range of discretion to determine which available resources shall be used and how they shall be used'.¹⁸⁵ The issue of how commanders resolve the tension between the principles of military necessity and humanity in determining what degree of precautionary measures to take as part of applying the rules of targeting remains unresolved in existing literature.¹⁸⁶

A recent study of state practice distilled how commanders balance military advantage and harm to civilians when applying the rules of targeting on the battlefield.¹⁸⁷ The study concluded that commanders employ alternative means of warfare whenever the degree of military advantage they forgo in using the alternative option is of the same or lower magnitude than the anticipated magnitude of harm to civilians.¹⁸⁸ The study conceives of commanders as applying subjective valuation and rules of thumb to place value on military advantage and harm to civilians.¹⁸⁹ For instance, commanders designate the likelihood of the attack inflicting harm on civilians as small, medium or high¹⁹⁰ rather than in terms of strict quantitative probability values.

2. How Far Economic Reasoning can be Taken

It is possible to use the Chicago School to interpret the rule of target verification and the principle of the least feasible damage as requiring commanders to take an efficient level of precautionary measures. However, this is contingent on one making an important assumption about valuation. The assumption is that commanders use the market to elicit information

¹⁸⁴ Office of the Judge Advocate General (n 173), 4.3-4.4 paras 25-27.

¹⁸⁵ International Criminal Tribunal for the Former Yugoslavia (n 39) para 29.

¹⁸⁶ Marco Sassòli and Lindsay Cameron, 'The Protection of Civilian Objects - Current State of the Law and Issues *de Lege Ferenda*' in Natalino Ronzitti and Gabriella Venturini (eds), *The Law of Air Warfare: Contemporary Issues* (Eleven International Publishing 2006) 70.

¹⁸⁷ Tetyana Krupiy, *A Toolbox for the Application of the Rules of Targeting* (Cambridge Scholars Publishing 2016).

¹⁸⁸ *Ibid* 338.

¹⁸⁹ *Ibid* 286 and 292-93.

¹⁹⁰ *Ibid* 292-93.

about what value states place on the avoidance of harm to civilians vis-a-vis military advantage.

Richard Posner proffers that L&E explains in what circumstances American judges rule that an individual owes a duty of care to take measures to prevent injuring another person.¹⁹¹ The legal doctrine in American tort law encapsulating this reasoning is called the 'Learned Hand formula'.¹⁹² The formula states that there is a duty on individuals to spend resources on taking precautions to prevent harming someone whenever the cost of taking such precautions is less than the gravity of damage which is likely to occur on average if precautions are not taken.¹⁹³ The average damage that will occur is calculated by multiplying the gravity of the injury by the likelihood of such an injury occurring.¹⁹⁴

The rule of target verification and the principle of the least feasible damage can be interpreted as requiring commanders to take the same level of precautionary measures as the Learned Hand formula provided one makes an assumption. The assumption is that IHL is indifferent to how commanders determine what value to place on harm to civilians and military advantage. As such, the formula can be said to capture the practice of states; a commander will use an alternative means of warfare if the cost in terms of military advantage of substituting a means or method of warfare is either less than or the same as the magnitude of harm to civilians which is avoided as a result of making the substitute in question.¹⁹⁵

The scholarship of Sigmund Horvitz and Robert Nehs provides indirect evidence that there may be a parallel between the degree of precautionary measures the Learned Hand formula requires and that required by the rule of target verification and the principle of the least feasible damage. The authors argue that the formulation of the principle of the least feasible damage should be based on economic analysis of the law in order to increase compliance with

¹⁹¹ Posner, 'Utilitarianism, Economics and Legal Theory' (n 68) 120.

¹⁹² Ibid.

¹⁹³ *United States v Carroll Towing Co* 159 F2d 169 [173] (United States Circuit Court of Appeals Second Circuit 1947).

¹⁹⁴ Ibid.

¹⁹⁵ Krupiy (n 187) 338.

the law.¹⁹⁶ A party should substitute their means of warfare for their alternative whenever the chance of civilian harm being avoided is greater than the cost of making the substitution in question.¹⁹⁷ In other words, the degree of precautionary measures advised by Horvitz and Nehs is a simplified restatement of the Learned Hand formula.

Further indirect evidence for this argument is found in the scholarship of Annemarie Balvert. Balvert argues that IHL follows a cost-benefit analysis and is efficient from the standpoint of the Kaldor-Hicks criterion of efficiency.¹⁹⁸ According to this criterion, a change from state A to state B should be made if those who benefit from the change could hypothetically compensate those who are made worse off by the change.¹⁹⁹ Such transactions are efficient because the value of total goods in society is increased whenever the benefits of a change from state A to state B exceed the costs of the change in question.²⁰⁰

The Learned Hand formula is founded on the economic concept known as 'diminishing marginal utility'.²⁰¹ In the field of economics the concept of diminishing marginal utility refers to the fact that as individuals consume more of a unit of production, they derive less satisfaction from each additional unit of consumption and greater satisfaction from consuming a unit of another good.²⁰² To illustrate, the armed forces derive less military advantage from deploying an additional tank as they deploy more tanks. They gain more military advantage from employing other units of materiel, such as artillery and aircraft in the place of a tank. An economist would thus say that

¹⁹⁶ Sigmund Horvitz and Robert Nehs, 'Proportionality and International Humanitarian Law: an Economic Analysis' (2011) 23(2) *Global Change, Peace & Security* 195, 205.

¹⁹⁷ *Ibid* 199.

¹⁹⁸ Balvert (n 10) 44.

¹⁹⁹ *Ibid*.

²⁰⁰ Richard Nobles, 'Economic Analysis of Law' in David Schiff and others (eds), *Jurisprudence & Legal Theory: Commentary and Materials* (Oxford University Press 2002) 860.

²⁰¹ Robert Cooter and Thomas Ulen, *Law and Economics* (6th edn, Pearson 2012) 214-15.

²⁰² David Besanko and Ronald Braeutigam, *Microeconomics* (2nd edn, John Wiley & Sons 2005) 72-75.

the manner in which the Learned Hand formula assigns rights is efficient from the point of economic theory.²⁰³ Since the formula allows individuals to inflict injury on others whenever the value they place on the activity exceeds the cost of payable compensation, the operation of this legal rule produces efficient outcomes.²⁰⁴

One of the few sources which can be construed as instructing the commanders to use the reasoning inherent in the economic concept of diminishing marginal utility is the United States Naval Doctrine Publication 6. According to this military manual, the value of gathering additional information decreases as commanders gather more intelligence.²⁰⁵ Specifically:

Knowledge is a function of information so, as the quantity of information increases, the effectiveness of the decision also should increase. At some point in the process, however, when basic knowledge has been gained and the quest for information focuses more on filling in details, we reach a point of diminishing returns. At this point, the potential value of the decision does not increase in proportion to the information gained or the time and effort expended to obtain it [...] Beyond this point, additional information may have the opposite effect - it may only serve to cloud the situation, impede understanding, and cause the commander to take more time to reach the same decision he could have reached with less information. Therefore, it is not the quantity of information that matters; it is the right information made available to the commander at the right time.²⁰⁶

The view that commanders derive utility from gathering information but that there comes a point at which the value of each additional unit of information declines reflects the essence behind the concept of diminishing marginal utility in economics.

There is insufficient evidence to conclude that commanders relying on the rules of targeting apply the economic logic of diminishing marginal utility when determining how to allocate limited resources between competing tasks. The instruction to commanders to employ diminishing marginal utility

²⁰³ Posner, 'The Value of Wealth' (n 69) 244.

²⁰⁴ Richard Posner, 'Wealth Maximisation and Tort Law' (n 70) 104.

²⁰⁵ United States Department of the Navy, *Naval Doctrine Publication 6 Naval Command and Control* (Headquarters United States Marine Corps 1995) 24.

²⁰⁶ *Ibid.*

reasoning in the United States Naval Doctrine Publication 6²⁰⁷ reflects policy rather than customary international law. The military manual discusses decision-making theory in the context of planning a military operation rather than in the context of compliance with IHL.²⁰⁸ Even if it were to be the case that this military manual referred to the gathering of intelligence in the context of complying with the rule of target verification, this evidence would be inconclusive. This is because, although the United States treats its military manuals as providing 'important indications of state behaviour and *opinio juris*', it cautions that the conduct of the armed forces on the battlefield has greater evidentiary weight²⁰⁹ as military manuals primarily incorporate policy considerations.²¹⁰ There is also little indication in the conduct and statements of other states that commanders use economic reasoning when applying the rules of targeting.

Further support for the argument that the concept of diminishing marginal utility has limited application in IHL can be found in the obligation to comply with the principle of distinction. The state practice of the Philippines reflects the fact that states require the armed forces to achieve a high degree of certainty that the target is a military objective. The Philippines interprets the principle of distinction as obliging the armed forces to have 'reasonable certainty' that the proposed target is a legitimate target.²¹¹ Thus, it requires the armed forces to gather sufficient information to ascertain that the proposed target is a military objective irrespective of the degree of effort involved in attaining each successive degree of certitude. In contrast, the concept of diminishing marginal utility entails balancing the benefit of having more information against the cost of obtaining such information.

²⁰⁷ Ibid 23-4.

²⁰⁸ Ibid 24.

²⁰⁹ United States Department of State, 'United States Initial Reactions to ICRC Study on Customary International Law' (*United States Department of State*, 3 November 2006) <<https://2001-2009.state.gov/s/l/rls/82630.htm>> accessed 1 February 2019.

²¹⁰ Nobuo Hayashi (ed), *National Military Manuals on the Law of Armed Conflict* (2nd edn, Torkel Opsahl Academic EPublisher and Peace Research Institute 2010) 8-9.

²¹¹ The Philippines, *AFP Standing Rules of Engagement* (Armed Forces of the Philippines 2005) para 8(5).

The likely reason why the United States treats the concept of diminishing marginal utility as having applicability to military planning²¹² stems from the common-sense logic inherent in this concept. The more intelligence commanders gather, the greater their knowledge about the location of the adversary and the civilians. There may come a point at which commanders have a sufficient degree of certainty about the nature of the proposed target and choose to divert reconnaissance resources to other missions. Another reason for the relevance of the concept of diminishing marginal utility stems from the fact that economics prescribes how scarce resources can be allocated between socially competing needs.²¹³ Commanders operate under constraints of both time²¹⁴ and resources.²¹⁵

The United States in all likelihood treats the concept of diminishing marginal utility as being relevant to military planning because this concept reflects the military wisdom commanders accumulated over the years which are encapsulated in the principles of war.²¹⁶ A commander considers the principles of war when devising tactics for a military operation with a view to increasing the unit's chances of winning.²¹⁷ The principle of the economy of effort urges commanders to allocate resources to tasks which enable the armed forces to achieve 'decisive strength' and to reserve fewer resources to tasks which have less bearing on the achievement of the military success.²¹⁸ The principle of the economy of effort and the principle of diminishing marginal utility are thus complementary. While the former encourages commanders to allocate reconnaissance resources based on the importance of each mission, the latter tells the commander at what point to divert

²¹² United States Department of the Navy (n 205) 24.

²¹³ Neva Goodwin and others, *Microeconomics in Context* (Houghton Mifflin Company 2005) 2-3.

²¹⁴ Laurie Blank, 'Operational Law Experts Roundtable on the Gotovina Judgment: Military Operations, Battlefield Reality and the Judgment's Impact on Effective Implementation and Enforcement of International Humanitarian Law' (2011) Emory University School of Law Public Law & Legal Theory Research Paper Series 12-186 1, 12-13.

²¹⁵ Milan Vego, *Joint Operational Warfare: Theory and Practice*. (2nd edn, United States Naval War College 2009) IX-48.

²¹⁶ Air Marshal David Evans, *War: a Matter of Principles* (Macmillan Press 1997) 1.

²¹⁷ *Ibid* 2.

²¹⁸ *Ibid* 80-81.

resources from one mission to another. IHL intervenes to limit the extent to which commanders can spread resources among competing military missions by requiring them to take constant care to spare the civilian population in the course of conducting military operations. The rule of target verification and the principle of the least feasible damage guide commanders in how to comply with this obligation.²¹⁹

Eric Posner's work²²⁰ demonstrates that an economist would find it significant that the rule of target verification and the principle of the least feasible damage require commanders to allocate the same resource between two competing uses, namely the achievement of military advantage and the reduction of harm to civilians. The concept of diminishing marginal utility explains why it is desirable to allocate resources to multiple uses. The allocation of resources to multiple competing uses maximises the value one can derive from the activities.²²¹

An economist would describe the rules of targeting which require the attacker to take the same degree of precautionary measures as in the Learned Hand formula as maximising the sum of military gains and the reduction of harm to civilians. Economists view the use of the cost-benefit approach to decision-making which treats each unit of expenditure as having a diminished marginal utility as maximising the net benefit.²²² They regard the cost-benefit assessment²²³ 'as an abstract model of how an idealised rational individual would choose among competing alternatives'.²²⁴

The economic rhetoric that the rules of targeting enable the armed forces to conduct military operations in such a way as to maximise their chances of

²¹⁹ Yves Sandoz, Christophe Swinarski and Bruno Zimmermann, *Commentary on the Additional Protocols of 8 June 1977 to the Geneva Conventions of 12 August 1949* (ICRC 1987) 680, para 2191.

²²⁰ Eric Posner, 'A Theory of the Laws of War' (n 9) 6, 8.

²²¹ Posner, 'Utilitarianism, Economics and Legal Theory' (n 68) 125; Edwin Baker, 'The Ideology of the Economic Analysis of Law' (1975) 5(1) *Philosophy and Public Affairs* 3, 11.

²²² Michael Common and Sigrid Stagl, *Ecological Economics: an Introduction* (Cambridge University Press 2005) 315.

²²³ Ben Bernanke and Robert Frank, *Principles of Economics* (4th edn, McGraw Hill/Irwin 2009) 12.

²²⁴ *Ibid* 7.

winning while minimising harm to civilians to the greatest extent possible does not, on the face of it, conflict with the traditional understanding of the purpose of IHL. IHL requires the armed forces to reduce 'as much as possible the calamities of war'.²²⁵ The reference in the principle of military necessity to the use of any amount of force necessary to win the military engagement with the least possible expenditure of resources subject to the restrictions placed by IHL²²⁶ alludes to the maximisation of military advantage under a condition of constraint. The next section considers whether L&E can explain the structure and application of IHL norms given the manner in which it approaches valuation.

3. Where the Economic Analysis of Law Breaks Down

Economics use the heuristic device of the market to elicit preferences.²²⁷ However, this distorts how IHL conceives of human life and how commanders apply the rules of targeting on the battlefield. In economics the value of a human life is linked to market transactions, namely to the earning capacity of individuals as well as to how much goods and services they produce.²²⁸ Richard Posner defines the value of human life by reference to the market by focusing on how much money individuals ask to be paid on the employment market for being exposed to particular danger.²²⁹ This value is then divided by the amount corresponding to the likelihood that an individual would die in the course of carrying out the employment activity.²³⁰ However, Posner does not address a crucial issue in his analysis. It follows from the principle of wealth maximisation that how much the employer can offer to pay for the assumption of risk hinges on the revenue the employer is able to generate from selling the goods and services in question. The

²²⁵ Saint Petersburg Declaration (n 14) preamble.

²²⁶ *The Hostages Case* (n 19).

²²⁷ Sloman (n 138) 316-317.

²²⁸ *Ibid* 317.

²²⁹ Richard Posner, *Economic Analysis of Law* (7th edn, Aspen Publishers 2007) 197-98.

²³⁰ *Ibid* 197.

statistical life approach in L&E to the valuation of life is to determine how much individuals are willing to pay to avoid exposure to a particular hazard.²³¹

If we apply such reasoning to the context of war, the lives of individuals who have an illness or are elderly have lower value than the life of healthy individuals when economics serves as an analytical framework.²³² This fact stems from their reduced capacity to produce goods and services.²³³ Additionally, the employment of an economic approach to valuation would result in greater value being attached to the life of children. As children have a longer life expectancy than adults, they can produce goods and services over a longer time period.

This approach to valuation is inconsistent with IHL. IHL treats human life as having intrinsic value. It places equal value on all life²³⁴ by holding that individuals enjoy immunity from attack when they do not,²³⁵ or no longer,²³⁶ take direct part in hostilities. Further evidence for this position can be found in Article 3 of the Geneva Conventions of 1949.²³⁷ This customary international law norm²³⁸ enshrines 'fundamental general principles of humanitarian law'²³⁹ and requires equal treatment of all individuals.²⁴⁰ Age and physical condition are examples of the prohibited grounds of discrimination.²⁴¹

²³¹ W Kip Viscusi, 'The Value of Life in Legal Contexts: Survey and Critique' (2000) 2(1) *American Law and Economics Review* 195, 196-97.

²³² Sloman (n 138) 317.

²³³ *Ibid.*

²³⁴ Françoise Krill, 'The Elderly in Situations of Armed Conflict' (*ICRC*, 22 May 2011) <www.icrc.org/en/doc/resources/documents/misc/57jqx9.htm> accessed 3 May 2019.

²³⁵ API 1977 (n 174) art 48.

²³⁶ *Ibid* art 41(1).

²³⁷ Geneva Convention IV 1949 (n 126) art 3.

²³⁸ Henckaerts and Doswald-Beck vol 1 (n 126) 308-09.

²³⁹ *Military and Paramilitary Activities in and Against Nicaragua (Nicaragua v United States of America)* [1986] ICJ Rep 14 [218].

²⁴⁰ Geneva Convention IV 1949 (n 126) art 3.

²⁴¹ Comprehensive Agreement on Respect for Human Rights and International Humanitarian Law between the Government of the Republic of the Philippines and the National Democratic Front of the Philippines (adopted on 16 March

Since both the Chicago²⁴² and Virginia Schools²⁴³ focus on exchange to elicit preferences the use of this methodology is not conducive to fostering compliance with an IHL requirement of equal treatment. Economists rely on the hypothetical market as a tool for establishing preferences because individual perceptions are subjective and because it is difficult to compare the interpersonal preferences of individuals.²⁴⁴ In practice, how much individuals can offer to pay for their life or for a reduction of exposure to a hazard is contingent on their earnings. Since individuals receive different pay for different kinds of work, the amount of money individuals can offer to pay will vary. Similarly, individuals who have fewer assets will be more willing to be employed in hazardous occupations compared to their more affluent peers. The employment of L&E logic results in the creation of a hierarchical order in which the value of the civilian lives varies depending on their income and possessions.

The assumption relied on by the Chicago School that the market is a suitable vehicle for eliciting individual preferences²⁴⁵ is meaningless in the context of IHL. In an armed conflict the ability of individuals to act on their desires is contingent on staying alive. In contrast with peacetime, civilians would place an unlimited value on their lives in a time of war because they lack the training to protect themselves from the incidental effects of military operations. Some individuals agree to be compensated for engaging in employment which exposes them to limited risk.²⁴⁶ Since the employer takes measures to reduce hazards, for example through the adoption of safety measures, this further reduces the risks and renders them more controllable.

The Chicago School is incapable of accounting for how commanders apply the rules of targeting on the battlefield. They require that the military

1998), Part III art 2(10), reprinted in Henckaerts and Doswald-Beck vol 2 (n 177) 2028.

²⁴² Posner, 'Wealth Maximisation and Tort Law' (n 70) 99.

²⁴³ Buchanan, 'Public Choice' (n 78) 9.

²⁴⁴ Richard Zerbo Jr, *Economic Efficiency in Law and Economics* (Edward Elgar Publishing 2001) 4.

²⁴⁵ Posner, 'Wealth Maximisation and Tort Law' (n 70) 99.

²⁴⁶ Carsten Gerner-Beuerle 'Calabresi, Posner, and Some Common Areas of Confusion: the Value of Life in Law and Economics' (2009) 1, 5 <<http://ssrn.com/abstract=1345583>> accessed 15 March 2019.

advantage and harm to civilians be converted to a common metric prior to being compared. This assumption diverges from IHL which treats harm to civilians and military advantage as being incommensurable.²⁴⁷ Incommensurability relates to an inability to trade off competing interests in a meaningful way.²⁴⁸ There is no metric which one can use to compare military advantage in relation to humanitarian values.²⁴⁹ Kenneth Anderson and Matthew Waxman analogise civilian harm and military advantages to apples and oranges.²⁵⁰ IHL raises the paradox of how commanders balance military advantage and harm to civilians without being able to measure or quantify the magnitude of either. According to the Israeli Rules of Warfare, 'there is no set formula according to which it is possible to weigh civilian damage against the expected military benefits from the offensive; but it is a question of degree'.²⁵¹ While reasonable commanders may disagree over the valuation of human life as a result of cross-cultural variation, it is expected that reasonable commanders will arrive at a similar assessment.²⁵²

One approach to answering the question of how commanders both attach value to incommensurable variables and weigh them is to view value as relative. According to Albert Einstein, an 'absolute' frame of reference does not exist.²⁵³ When one measures anything, one measures one entity in relation to something else.²⁵⁴ This reasoning suggests that the magnitude of harm to civilians can only be understood by reference to military advantage

²⁴⁷ Yoram Dinstein, *The Conduct of Hostilities Under the Law of International Armed Conflict* (3d edn, Cambridge University Press 2016) 158.

²⁴⁸ Trachtman and Dunoff (n 83) 48.

²⁴⁹ Dinstein (n 247) 158; Michael Schmitt, 'War, Technology and International Humanitarian Law' (2005) 4 Occasional Paper Series 1, 51.

²⁵⁰ Kenneth Anderson and Matthew Waxman, 'Law and Ethics for Autonomous Weapon Systems: Why a Ban Won't Work and How the Laws of War Can' (2013) Jean Perkins Task Force on National Security and Law 2013-II 1, 12 <http://media.hoover.org/sites/default/files/documents/Anderson-Waxman_LawAndEthics_r2_FINAL.pdf> accessed 3 May 2019.

²⁵¹ Israel Defense Forces, *Rules of Warfare on the Battlefield* (2nd edn, IDF School of Military Law 2006) 27.

²⁵² International Criminal Tribunal for the Former Yugoslavia (n 39) para 50.

²⁵³ Albert Einstein, *The Meaning of Relativity* (Springer Science and Business Media 1922) 103.

²⁵⁴ *Ibid* 88.

and vice versa. Circumstances determine what degree of harm to civilians corresponds to the military value of a means of warfare, such as a tank. This is because humanitarian and military considerations dictate what degree of military advantage it is feasible for a commander to forgo in adopting an alternative means or method of warfare.²⁵⁵ The degree of military advantage the preservation of a tank offers is contingent on the total pool of military resources the armed forces have and on how easily the armed forces are able to replace the damaged units.

The extent of harm to civilians which corresponds to the military advantage of a tank moreover reflects a consideration that human beings are irreplaceable. Hence, the military advantage of a tank equates to a certain degree of harm which the armed forces will inflict on the civilians due to protecting the tank. Commanders use thresholds embodying subjective valuation, ranging from low to high, rather than numerical values to estimate anticipated military gains and harm to civilians.²⁵⁶ This reasoning relating to valuation is congruent with, for example, Israel's state practice. Israel treats the weighing of military advantage against the harm to civilians as being a matter of degree.²⁵⁷ This corresponds to the assertion that one can measure one entity in relation to another but not in relation to itself.²⁵⁸

VI. THE USE OF ECONOMIC REASONING TRANSFORMS IHL

In addition to lacking sufficient explanatory power, the introduction of economic concepts, such as productive value, to explain IHL has the potential to reshape this legal regime. The use of a theoretical framework based on economics which allows for subjective valuation does not address the concerns.

²⁵⁵ Belgium, Interpretative Declarations Made Upon Ratification of AP I 1977, 20 May 1986, para 3, reprinted in Henckaerts and Doswald-Beck vol 2 (n 177) 357.

²⁵⁶ Laurent Gisel, International Expert Meeting 22-23 June 2016: the Principle of Proportionality in the Rules Governing the Conduct of Hostilities under International Humanitarian Law (ICRC 2016) 65.

²⁵⁷ Israel Defense Forces, Rules of Warfare on the Battlefield (n 251) 27.

²⁵⁸ Einstein (n 253) 88.

1. Economics Modifies the Goals and Structure of IHL

Margaret Radin posits that the language individuals employ to discuss value²⁵⁹ and rights shapes their understanding of the world as well as the purpose of legal regulation.²⁶⁰ The use of economic language leads to a commodification of that which has a moral dimension.²⁶¹ Economics 'reduces to the language of market value something that is appropriately conceptualised in some other language of value'.²⁶² Individuals thus come to view aspects of their personhood as a commodity, namely a set of scarce goods which are high in demand.²⁶³

The use of economic reasoning to explain IHL transforms IHL. By shifting how states conceive of value, L&E sets a different agenda for the goals to be pursued by IHL. The latter becomes a regime which aims to maximise a state's wealth through increasing the circulation of goods in the market. L&E reasoning modifies the structure of IHL and how decision-makers apply IHL norms. Furthermore, it erases the dimensions of value which are not linked to wealth production and thereby commodifies civilian objects.

Such commodification is inconsistent both with the Preamble to the Saint Petersburg Declaration and with how IHL in general, and the principle of humanity in particular, envisages protected persons and objects. For instance, the use of L&E leads to the value of cultural property hingeing on how much revenue a state earns from tourist visits. L&E ignores the fact that states formulated IHL in a manner which recognises that cultural property has psychological value and evokes 'deep-rooted spiritual attachment'.²⁶⁴ The Preamble to The Hague Convention for the Protection of Cultural Property in the Event of Armed Conflict 1954 states that cultural property makes an

²⁵⁹ Radin, 'Compensation and Commensurability' (n 114) 83.

²⁶⁰ Margaret Jane Radin, 'Market-Inalienability' (1987) 100(8) *Harvard Law Review* 1849, 1884-85.

²⁶¹ *Ibid* 1861-62; Margaret Jane Radin, 'Justice and the Market Domain' in John Chapman and Ronald Pennock (eds), *Markets and Justice* (New York University Press 1989) 167.

²⁶² Radin, 'Compensation and Commensurability' (n 114) 59.

²⁶³ Radin, 'Market-Inalienability' (n 260) 1884.

²⁶⁴ Dinstein (n 247) 203.

important contribution to the cultural heritage worldwide.²⁶⁵ The fact that the Convention recognises that cultural property has psychological value to people worldwide evidences that the principle of humanity requires valuation by reference to psychological, rather than merely economic, value.

When commanders refer to the market as a means to elicit what value to place on avoidance of harm to civilians and military advantage, they may balance the competing values of military necessity and humanity differently. For instance, commanders may conclude that it is not feasible to take precautionary measures to minimise damaging a civilian object housing elderly individuals. They are likely to reach a different conclusion under a traditional analysis which makes no reference to the productive capacity of the civilians. The application of the central elements of the 'principle of wealth maximisation', such as a focus on individual preferences, the use of the market to elicit preferences and the allocation of resources to efficient uses, therefore changes the structure of IHL and how the latter understands the relationships between individuals and states. Because valuation is central to the principles of military necessity and humanity, when one changes the process of valuation one transforms how decision-makers understand and balance these principles. Thus, the descriptive value of L&E methodology for explaining IHL is questionable because it is inconsistent with how IHL envisages harm to civilians.

2. The Inadequacy of Economic Theoretical Frameworks which Permit Subjective Valuation

The use of valuation by reference to the subjective values of individuals does not redress the problematic nature of using L&E to explain and theorise IHL. The following example illustrates that economic theoretical frameworks which allow for the incorporation of non-economic reasoning do not address the weakness of methodologies based on L&E.

Richard Zerbe is an economist who advocates the use of the cost-benefit analysis as a guide for decision-making in a manner which accounts for the

²⁶⁵ The Hague Convention for the Protection of Cultural Property in the Event of Armed Conflict 1954 (adopted 14 May 1954, entered into force 7 August 1956) 249 UNTS 240 preamble.

values the economic analysis traditionally excludes.²⁶⁶ He argues that when assessing the costs and benefits associated with a change a decision-maker should consider 1) the subjective psychological values that those affected by the decision would place on the respective gains and losses, 2) the ethical principles society shares which bear on the proposed change and 3) 'regard for others'.²⁶⁷ Zerbe defines 'regard for others' as 'the concern of some for what they regard as fair outcomes for others, whether or not the regarding parties are themselves directly affected'.²⁶⁸ It is irrelevant what motivates individuals to care about those the decision affects.²⁶⁹

Zerbe argues that when a decision-maker applies the cost-benefit analysis to determine whether to embark on a course of action, and when the decision-maker uses psychological valuation for assessing costs and benefits, the resulting decision will lead to the attainment of the highest social gain.²⁷⁰ The decision will be ethical in the sense of fairly distributing benefits and burdens.²⁷¹ Zerbe views his theory as enabling the decision-makers to achieve a different type of efficiency, one that is 'ethically satisfying'.²⁷²

Arguably Zerbe's goal of maximising the net social gain resembles, but is not equivalent to, utilitarianism. Utilitarianism views morality in terms of advancing the greatest good for the greatest number of people and avoiding pain,²⁷³ where pleasure and pain are to be measured both quantitatively and qualitatively.²⁷⁴ Zerbe's approach is distinct from utilitarianism in one aspect: individuals who are made worse off by the decision receive compensation.²⁷⁵

Under Zerbe's decision-making framework, the rules of targeting – which have the form of the Learned Hand formula and which allow for subjective valuation – enable states to attain the highest social gain. Zerbe's definition

²⁶⁶ Zerbe (n 244) 16.

²⁶⁷ Ibid 50.

²⁶⁸ Ibid 26.

²⁶⁹ Ibid 189.

²⁷⁰ Ibid 28.

²⁷¹ Ibid 30.

²⁷² Ibid 1.

²⁷³ John Stuart Mill, *Utilitarianism* (Andrews United Kingdom 2011) 16-17.

²⁷⁴ Ibid.

²⁷⁵ Zerbe (n 244) 29.

of social gain is wide enough to encompass any societal preferences. These include the ability to shape the state's system of governance, preservation of national identity and safeguarding the lives of civilians. An uncritical engagement with Zerbe's theory would designate the rule of target verification and the principle of the least feasible damage as resembling utilitarianism.

However, the interpretation of the rule of target verification and the principle of the least feasible damage as achieving the maximisation of the social gain does not adequately explain IHL. Zerbe's framework suggests that there is a threshold at which the conversion of military resources into military gains at the expense of causing death and destruction produces the highest social gain. This approach ignores the fact that IHL rules are normative in character. Jean Pictet argues that the humanitarian principles within IHL norms reflect ethical and philosophical tenets that all cultures share.²⁷⁶ Michael Bothe prefers the viewpoint that IHL is multicultural because states have different cultural identities.²⁷⁷ There is cross-country variation in what restraints communities observe in times of armed conflict at different points in time worldwide.²⁷⁸ However, Bothe acknowledges that the world's religions share a core list of proscribed conduct and that the protections extend to individuals who do not practise that particular religion.²⁷⁹

An appropriate interpretation of IHL norms requires a grasp of the ethical foundation behind the norms and how they have been evolving. According to Dale Stephens, IHL norms have a settled core of meaning and evaluative standards which leave a degree of discretion to the decision-maker.²⁸⁰ While the ethical values underlying IHL norms of minimising suffering, injury and

²⁷⁶ Henri Dunant Institute, *International Dimensions of Humanitarian Law* (Martinus Nijhoff Publishers 1988) 3-4.

²⁷⁷ Michael Bothe, 'Multiculturalism and the Development of International Humanitarian Law' in Jacques-Yvan Morin and Sienho Yee (eds), *Multiculturalism and International Law: Essays in Honour of Edward McWhinney* (Martinus Nijhoff Publishers 2009) 620.

²⁷⁸ *Ibid* 621.

²⁷⁹ *Ibid* 622.

²⁸⁰ Dale Stephens, 'Counterinsurgency and Stability Operations: a New Approach to Legal Interpretation' in Raul Pedrozo (ed), *The War in Iraq: A Legal Analysis*, vol 86 (Naval War College 2010) 298.

destruction remain constant, states enlarge the scope of protections over time. Theodor Meron has analysed how the ambit of protections IHL confers has been expanding.²⁸¹ To illustrate, prior to and during World War II customary international law permitted bombardment of military objectives even if it caused 'wholesale destruction of property and civilian life'.²⁸² In contrast, current customary international law prohibits attacks

which may be expected to cause incidental loss of civilian life, injury to civilians, damage to civilian objects, or a combination thereof, which would be excessive in relation to the concrete and direct military advantage anticipated.²⁸³

Noam Neuman proffers that the moral tenets underpinning the principle of proportionality should be referred to in order to aid the process of legal interpretation because these tenets influenced how states formulated IHL.²⁸⁴

The interpretation of the rules of targeting as yielding a social gain imbues them with a type of logic underlying utilitarian ethics, yet utilitarian ethics is a poor descriptor of the deeper ethical foundations of IHL. The statement that damage to a day-care centre, the collateral killing of ten children, the expenditure of a bomb and the destruction of eighteen units of enemy materiel maximises either the social gain or utility is inconsistent with how IHL conceives of military operations. IHL treats the process of balancing incidental killing of civilians and military advantage as an agonising and morally value-laden decision rather than as a decision which produces net social gain or utility. This is supported by how states evaluate the conduct of their armed forces. To illustrate, Israel described the armed forces as facing

²⁸¹ Theodor Meron, 'The Humanisation of Humanitarian Law' (2000) 94(2) *The American Journal of International Law* 239, 239.

²⁸² Morton Royse, 'La Protection des Populations Civiles Contre les Bombardements' (International Committee of the Red Cross conference, Geneva, 1930) 41.

²⁸³ Doswald-Beck vol 1 (n 126) 46.

²⁸⁴ Noam Neuman, 'Applying the Rule of Proportionality: Force Protection and Cumulative Assessment in International Law and Morality' (2004) 7 *Yearbook of International Humanitarian Law* 79, 100-01.

'complex operational, moral and legal challenges' when responding to rocket attacks from Hamas.²⁸⁵

Utilitarian reasoning misrepresents the nature of military and humanitarian considerations. Radin explains that the utilitarian claim that the sum of two values can be maximised makes two assumptions.²⁸⁶ The first is that a value can be reduced to something.²⁸⁷ The second is that values can be put in order from the most to the least valuable.²⁸⁸ This is not possible with incommensurable values.²⁸⁹ When one ranks values one renders them reductionist, thus commodifying them.²⁹⁰ Similarly, by using a process of translation to convert harm to civilians and military advantage to a concrete entity one modifies the two variables into commodities.

This commodification occurs because the military gains and harm to civilians become commensurable and this again distorts the nature of the two variables in IHL. The act of commensurability eliminates a core aspect of the rules of targeting, namely a process of reflection on why human life and national security have value as well as how each should be evaluated. The contemplation on the value of human life is moral-laden and agonising and the different emotions individuals experience when reflecting on the value of human life and national security shed light on the nature of each variable. For example, loss of a human life is related to feelings of grief. Failing to successfully conduct a military operation may evoke feelings of fear and anxiety associated with losing the capacity for self-governance.

Rather than being additive, in IHL military advantage and harm to civilians are different entities which are in a position of mutual relation. Military advantage can be weighed in relation to harm to civilians but cannot be converted to the same unit of analysis using psychological valuation. The use

²⁸⁵ Israel Ministry of Foreign Affairs, *The Operation in Gaza: Factual and Legal Aspects* (Israel Ministry of Foreign Affairs 2009) 98 para 261.

²⁸⁶ Radin, 'Compensation and Commensurability' (n 114) 64.

²⁸⁷ Ibid.

²⁸⁸ Ibid.

²⁸⁹ Ibid.

²⁹⁰ Ibid 67.

of a L&E methodology is problematic in IHL because it mischaracterises harm to civilians and military advantage as commensurable.

VII. CONCLUSION

The Virginia and the Chicago Schools provide limited descriptive capacity in the context of IHL. The Virginia School accounts for the fact that self-interest is one of the motivating factors behind states' conduct. However, it does not capture the constructivist dimension of IHL. L&E reasoning in general and the Virginia School in particular divest IHL of its symbolic, psychological and collective dimensions. It changes the cognitive architecture of IHL and the role this regime plays in sustaining the fabric of societies during armed conflict.

The use of the Chicago School to understand IHL changes how states understand the purpose of IHL. It reframes the purpose of IHL by reference to the maximisation of wealth and by reference to the maximisation of the circulation of goods in societies. It modifies IHL's underlying structure and the application of its norms. The Chicago School has descriptive capacity for the principle of military necessity but not for the principle of humanity. Since the use of economic reasoning leads to the commodification of that which is the subject of valuation, economic reasoning is inconsistent with how the principle of humanity envisages protected persons and objects. The reference to the market to elicit preferences and to allocate rights changes how IHL mediates the tension between the principle of military necessity and the principle of humanity. The humanitarian facet of IHL becomes weakened when one expresses military advantage and harm to civilians using quantitative values.

Overall, the discussion demonstrates that the use of L&E renders IHL a type of humanitarian economics. The sociologist Ulrich Beck argues that when one uses quantifiable values, such as mortality rates, in the place of ethics to reason about the acceptability of inflicting harm one engages in a type of 'ethics without morality'.²⁹¹ Beck uses the term 'mathematical ethics' to

²⁹¹ Ulrich Beck, 'From Industrial Society to the Risk Society: Questions of Survival, Social Structure and Ecological Enlightenment' (1992) 9 *Theory Culture & Society* 97, 99.

denote how, with the advent of technology, society relies on the measurement of risks for making decisions.²⁹² The analysis illustrates that the employment of L&E to explain IHL inserts a type of mathematical ethics²⁹³ into IHL. The Chicago School displaces the process of thinking about humanitarian values from a standpoint of ethics with a vantage point of wealth production. In doing so it removes moral dimensions from the deliberation process of commanders. The traditional conception of IHL as offering a framework for reasoning through difficult decisions with an ethical dimension in the context of an armed conflict better captures IHL than the methodology offered by L&E.

²⁹² Ibid.

²⁹³ Ibid.