The Impact of Independence:
Medical Humanitarianism in Conflict Settings

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Contents

1. Introduction 3
2. The Literature 16
3. Theory 29
4. Argument and Case Studies 52
5. Methodology 70
6. Results 85
7. Discussion 102

Appendices 112
Bibliography 123
1. Introduction

I. Research Question

On October 7th 2001, the United States military began Operation Enduring Freedom, an invasion of Afghanistan in response to the September 11th 2001 attacks on New York City and Washington D.C. In the more than nine years since the initial invasion, the United States Military, the International Security Assistance Forces, The Government of the Islamic Republic of Afghanistan, and various intergovernmental and nongovernmental organizations have sought to stabilize, develop, democratize, and assist Afghanistan and its people. This thesis considers one specific aspect of that effort, medical humanitarianism, and the impact of independence, neutrality and impartiality. The thesis asks: do varying levels of independence, impartiality, and neutrality have a causal impact on the level of effectiveness of medical humanitarian action? These three variables, independence, impartiality, and neutrality, will be considered collectively as the degree of humanitarianism of medical organizations. Based on theoretical and qualitative analysis, the thesis hypothesizes that in Afghanistan from 2004 to 2008 there will be a positive correlation between degree of humanitarianism and medical effectiveness.

II. Justification

A historical consideration of humanitarian action shows that the issues of independence, impartiality, and neutrality have been relevant to humanitarianism for decades, and that the impact of humanitarianism on international affairs has increased considerably in the post-cold war environment. As the role of
humanitarian organizations in the international community has grown, so too has
the relevance of determinants of effectiveness, intended and unintended
consequences, appropriate roles of various actors, and appropriate and effective
conduct in conflict settings. These issues are relevant not only for humanitarian
actors, but for policy makers, scholars, and actors in the field of international
relations as a whole. One of the fundamental questions of humanitarian action,
and indeed, international relations as a field, is the relative role of state and non-
state actors in the international community. With specific respect to
humanitarianism, who should take responsibility for the provision of medical care
in conflict settings? This thesis seeks to contribute to the analysis of this question
by testing proposed determinants of effective humanitarian action: independence,
impartiality, and neutrality.

Numerous conflicts from 1990 to the present, in Iraq, The Democratic
Republic of the Congo, Rwanda, Liberia, Somalia, Kosovo, Afghanistan, and Iraq
(for a second time) have shown that humanitarian action is complex. Numerous
organizational, economic, military, security, and medical aspects of the field must
be analyzed. Such analysis has taken place. However, the majority of scholarly
literature on humanitarian action is written as ad-hoc qualitative historical
analysis. This thesis will contribute to this literature in several ways, first by
developing a comprehensive theory addressing the connection between
independence and effectiveness, the thesis will systematize analysis of
humanitarian action. Furthermore, as significant quantitative analyses of the
impact of independence on effectiveness have not been found, this thesis seeks to
provide such a quantitative study.¹ To do so the thesis will establish a multi-
component quantitative independent variable that measures the degree of
humanitarianism of medical organizations and will use regression analysis to test
the effect of varying degrees of humanitarianism on existing measures of
healthcare provision in Afghanistan.

While the quantitative section will be limited to Afghanistan, the thesis
will contribute to the study of humanitarianism in general by considering the
application of principal-agent theory of organizational behavior to
humanitarianism and using game theory to explain the various possible
connections between independence and effectiveness. Findings will contribute to
the analysis of contemporary conflicts, such as Iraq, as well as future conflicts in
which humanitarian action takes place. If recent trends continue, humanitarian
action in conflict settings will continue to increase, and these findings will
continue to be relevant. However, the thesis also contributes to specific analyses
of Afghanistan. By quantitatively addressing a fundamental question of
humanitarian action, results will improve understanding of a complex conflict
environment and the impacts of a major strategy for development and peace
building.

III. Methodology

In order to develop a general framework of analysis the principal-agent
theory of organizational behavior as well as classical game theory will be applied

¹ Adam Roberts, *Humanitarian Action in War: aid, protection and impartiality in
to humanitarianism. The principal-agent theory will establish the basis for a numerical scale of humanitarianism, while classical game theory will be used to explore the implication of varying degrees of humanitarianism on medical outcomes. The predicted outcomes of the theory will be examined through both qualitative and quantitative analysis. Qualitative analysis will examine the specific conditions of Afghanistan which impact expected correlations between independence and effectiveness. Brief qualitative case studies will also be included.

Quantitative research methodology combines data gathered via a survey of humanitarian organizations and a yearly assessment of the health care system in Afghanistan conducted by the Johns Hopkins Bloomberg School of Public Health and the Indian Institute of Health Management Research. The survey data will allow for the construction, in a manner similar to the construction of the Polity IV data set, of a multidimensional independent variable measuring the degree of humanitarianism of various organizations. The health system assessment will serve as the dependent outcome variable. Demographic and conflict specific variables, measuring development and frequency of conflict will be control variables.

The remainder of this introductory chapter will provide historical background contextualizing the thesis. This background will emphasize the importance of the principles of independence, impartiality, and neutrality, as well

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The Polity IV Project compares authority characteristics of states to facilitate comparative quantitative analysis.
as the increasing relevance of humanitarianism to the international community in the post-Cold War World.

Chapter Two will review the existing literature on typologies of humanitarian organizations, the application of principal-agent theory and previous study of relevant variables and the specific case of Afghanistan. In doing so it will define the term humanitarian space as an environment, both physical and political in which humanitarian organizations can effectively access populations and provide aid. Furthermore, the literature review will establish the differing views of two philosophies of humanitarianism, Wilsonianism and Dunantism, with respect to humanitarian space. Finally, the issue will be considered with respect to Afghanistan, and recent arguments that humanitarian space in Afghanistan is diminishing.

Chapter Three describes the use of principal-agent theory and game theory to develop an index of humanitarianism and general hypotheses regarding the connection between independence and medical effectiveness. Principal-agent theory is used in combination with analyses of humanitarianism to develop an index measuring the extent to which humanitarian organizations maintain the principles of independence, impartiality, and neutrality. Furthermore, a game theory model will be developed, which uses two conditions describing differences between Dunantism and Wilsonianism to describe environments in which independence will be positively correlated with medical outcomes, and environments in which independence will be negatively correlated with medical outcomes.
Chapter Four will qualitatively analyze conditions established in the theoretical section, arguing that Afghanistan is an environment in which humanitarianism will be positively with medical outcomes. Chapter Five will describe sources of data and quantitative methodology, including the construction of the index. Chapter Six presents results, and Chapter Seven provides a concluding discussion. Ultimately, the thesis finds that there is not statistically significant evidence that increasing humanitarianism, as measured by a cumulative index, is associated with increasing medical outcomes. However, the thesis does find statistically significant associations between several specific components of humanitarianism and medical outcomes.

IV. Historical Background

Humanitarianism has been shaped by conflict since the founding of the International Committee of the Red Cross (ICRC) in 1863. In the nearly century and a half since, the history of humanitarianism has demonstrated an increasing interconnectedness of humanitarian action and international political interaction. As such, political scientists studying conflict have found it necessary to consider humanitarians as actors with potentially significant agency and the ability to profoundly affect political phenomenon, rather than simply actors beholden to the whim of powerful states. Conversely, humanitarian actors cannot ignore the increasingly politicized context in which they operate. While many humanitarians would prefer to provide non-political, neutral, independent and impartial relief, this section will argue that humanitarianism in conflict settings is by definition a
political phenomenon in that it has significant political effects, and is also significantly affected by political action.\(^3\)

Therefore, both the political science study of conflict and the study of humanitarian action will benefit from a comprehensive analysis of humanitarianism as a political phenomenon. This historical review of humanitarianism seeks to simultaneously highlight three key points foundational to such an analysis. First, humanitarianism is a political phenomenon, shaped by political forces, and with significant impact on political outcomes. Second, humanitarianism is becoming increasingly relevant in the post-Cold War World. Finally, the issues of independence, impartiality, neutrality, and politicization of aid have characterized the history of humanitarianism as a political phenomenon. By highlighting the prevalence of these issues in the history of humanitarianism, this section seeks to provide initial justification for the focus of the analytical sections that follow.

After witnessing the horrors of war in the Battle of Solferino, Henry Dunant mobilized the international community to produce both the Geneva Convention and the ICRC, founded on the seven humanitarian principles of humanity, impartiality, neutrality, independence, voluntary service, unity, and universality\(^4\). The ICRC’s unique legal and historical status has lead to these principles, and specifically independence, impartiality, and neutrality, defining


traditional humanitarianism, and serving as a starting point for debate. This study
takes these three principles as the most important of the seven, and most relevant
principles of humanitarianism. The ICRC provides the following definitions of
these principles.

Impartiality: It makes no discrimination as to nationality, race, religious
belief, class or political opinions. It endeavors to relieve the suffering of
individuals, being guided solely by their needs, and to give priority to the
most urgent cases of distress.

Neutrality: In order to enjoy the confidence of all, the Movement [ICRC]
may not take sides in hostilities or engage at any time in controversies of a
political, racial, religious or ideological nature.

Independence: Providing care and assistance and doing so in complete
independence – that is the Movement’s line of conduct. To act
accordingly, it must rely on its own assessment made on the basis of
objective criteria. It must not give into political pressure or let itself be
swayed by public opinion.

While humanitarian efforts existed before the ICRC, the organization’s
founding is accepted as the beginning of modern humanitarianism. Even at this
gestational stage, the relationship between humanitarian actors and states was
debated, and served as the basis of Florence Nightingale’s criticism of the
formation of the ICRC. “Such a society would take upon itself duties which ought
to be performed by the government of each country and so would relieve them of
responsibilities which really belong to them and which they can properly
discharge and being relieved of which would make war more easy.”

In addition to catalyzing the formation of the ICRC, conflict has also led
to fragmentation. After witness the atrocities of war and the silence of the ICRC

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5 This emphasis is supported by Roberts 51.
6 ICRC Fundamental Principles
7 John Hutchinson Champions of Charity: War and the Rise of the Red Cross,
   (Boulder: Westview Press) 40 quoted in Krause 105
as a volunteer physician in blockaded Biafra during the Nigerian Civil war, Bernard Koucher broke off from the organization and in 1971 founded Médecines Sans Frontières (MSF). While MSF maintained the ICRC’s emphasis on independence and impartiality, the organization believed that it had a moral responsibility to speak out on behalf of the victims of conflict, even at the expense of organizational neutrality. Over the past several decades, numerous other humanitarian organizations have emerged, with varying emphasis placed on the original humanitarian principles of the ICRC.

While humanitarianism certainly expanded, developed, and evolved in the mid to late twentieth century, the massive change in the nature of conflict and the international political order that resulted from the end of the cold war ushered in a period of rapid change in humanitarianism. The fall of the Berlin Wall changed conflict, and as such, changed humanitarian action. As Roberts states, in the 1990s, “Most states – lacking a strong interest in the civil wars raging around the world, and no longer seeing them as a part of the global confrontation in which they had a stake – were nervous about a deep or enduring military involvement.”

This apprehensiveness to use military power led many states to rely on humanitarianism as a political tool. As such, the role of humanitarian actors increased and the political nature of their actions became both more complex and more relevant. Increasingly important political issues of humanitarian relief

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8 Ibid 114
9 Joanna Macrae Understanding Integration from Rwanda to Iraq, Ethics & International Affairs, 18:2 (2004): 29-35
10 Roberts 8.
included holding to humanitarian principles, state/non-state interactions, sovereignty, the relative roles of various actors in conflict settings, and the possible, and sometimes realized, negative impacts of humanitarianism. The 1990’s saw conflicts in Somalia, Iraq, Liberia, Rwanda, The Democratic Republic of the Congo (formerly Zaire), Yugoslavia, and Cambodia and other countries. While all of these conflicts had an impact on humanitarianism, Rwanda, Somalia, and Yugoslavia will be considered in detail to describe the evolution of humanitarian action.

The Rwandan genocide was particularly shocking to humanitarians, and marks the beginning of a period of skepticism in humanitarianism. While seeking only to provide aid to victims of the conflict, questions (which can be traced to Florence Nightingale’s criticisms of the ICRC) arose as to whether humanitarian action actually prolonged the conflict. Belligerents politicized aid by demanding various goods intended for victims of the conflict, such as food, medical supplies, and clothing, in exchange for protection. In such a situation, humanitarianism is beholden to the political dimensions of the conflict setting in that relief actors are dependent on political actors for access. Furthermore, the situation demonstrates the political effects that humanitarian aid can have, in that belligerents were able to demand and use humanitarian resources to improve their ability to wage war.

Fiona Terry describes further issues such as unintended consequences, manipulation and abuse of humanitarianism, refugee warriors, and the principle of Do No Harm in an effort to analyze the obligations and responsibilities of humanitarian actors. Jonathan Moore’s *Hard Choices* further addresses a number of fundamental questions that began to arise after Rwanda. How could military humanitarian intervention be justified in an international community based on national sovereignty? What role should humanitarian NGOs play in such an intervention? How should resources and personnel be allocated between relief and development? Rwanda changed humanitarianism. No longer was aid and assistance seen as an a priori good; it was now necessary to carefully examine the structure and possible positive and negative political impacts of humanitarian action, in order to ensure that it was, in fact, helping those in need. Furthermore, the extent to which humanitarian actors were dependent on military actors for security and access to refugee populations demonstrates the relevance of political factors to the conduct of humanitarianism.

Analysis of the conflicts in Somalia and 1991 and the former Yugoslavia in the late 1990’s have led to further criticism of humanitarianism, as well as even more complex, yet critical questions for humanitarian actors. Rieff chronicles how these conflicts have frustrated humanitarian actors, and led some doctors to sacrifice principles of neutrality and impartiality by joining larger political and

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13 Moore
military operations.\textsuperscript{14} Furthermore, the funding of humanitarian organizations became a particularly relevant determinant of independence, as governments became militarily involved in the conflicts in which they were funding humanitarian action. Finally, as Weiss describes, the principle of humanitarian access was further called into question, especially in Somalia, where aid organizations were at times forced to rely on, and pay for, security provided by warlords and other parties to the conflict.\textsuperscript{15}

The nature of international conflict was further shifted by the global war on terror. As the humanitarian community was struggling to address the questions brought about by Rwanda, Somalia, Bosnia, and Kosovo, the wars in Iraq and Afghanistan further complicated the humanitarian environment. Humanitarianism was increasingly seen as a political tool. “After September 11, humanitarian assistance has been seen by many governments as an instrument of soft security, crucial for addressing the perceived root, social causes of terrorism.”\textsuperscript{16} In a statement vehemently criticized by various humanitarian actors, U.S. Secretary of State Colin Powell praised NGOs in Afghanistan. “NGOs are such a force multiplier for us, such an important part of our team.”\textsuperscript{17} These policies and assertions had profound impacts on independence and humanitarian space.

\textsuperscript{14} David Rieff \textit{A Bed for the Night: Humanitarianism in Crisis}. (Simon and Schuster. New York. 2002).
\textsuperscript{16} Macrae \textit{Rwanda to Iraq}
\textsuperscript{17} Michael Barnett \textit{The International Humanitarian Order}. (Routledge. New York. 2010) 726
The relationship between states, especially the United States, and humanitarian organizations, and the lack of humanitarian space are the most pressing issues facing humanitarianism in the war on terror. While some organizations embrace cooperation with the United States and other governments, others seek to preserve their independence, and as they do so, the recent conflicts of the United States are of utmost importance. As stated by Krause, “The US has been so important globally in the last couple of decades that independence is measured by distance to the US government.”\textsuperscript{18} Scholars have argued that that distance is shrinking rapidly, and that the conduct of both humanitarian organizations, and US foreign policy has fundamentally changed humanitarianism.

This historical review is intended to contextualize the thesis by establishing the relationship between humanitarianism and conflicts in which humanitarian action takes place. Furthermore, it establishes both the numerous politically relevant issues of humanitarianism and the importance of the humanitarian principles of independence, impartiality, and neutrality to humanitarian actors. As humanitarianism is shaped by and continues to shape the nature of intra and interstate conflict, it will remain a subset of international relations in need of detailed analysis. The following chapters will first analyze the existing literature, and then seek to advance the theoretical, qualitative and quantitative analysis of humanitarianism.

\textsuperscript{18} Krause 125
2. The Literature

This chapter will consider three subsets of literature on humanitarianism. The above historical background shows the importance of neutrality, impartiality and independence to humanitarianism. The first section of this literature review will consider the use of these principles to develop typologies of humanitarian organizations. Next, it will review relevant previous scholarship related to this study. Finally, it will describe recent work considering humanitarianism as a principal-agent relationship.

I. Typologies of Humanitarian Organizations

Many scholars have advanced typologies of organizations in an effort to explain and analyze differentiation among humanitarian actors, especially with respect to how organizations position themselves relative to the sovereign states of the international order. These typologies are especially relevant to this thesis, as it attempts to find quantitative impacts of that differentiation.

Abby Stoddard proposes a tripartite typology, differentiating between religious, Dunantist, and Wilsonian organizations. Stoddard defines Dunantist organizations as those who “seek to position themselves as outside of state interests” and Wilsonian organizations, generally based in the United States, as those which “see a basic compatibility with humanitarian aims and US foreign policy interests” and “project US values and influence as a force of good in the world.”

20 Ibid 2
Religious humanitarian organizations have grown out of traditions of missionary work; and represent a complicated facet of the international humanitarian community. Stoddard notes that most religiously affiliated aid organizations do not proselytize, and develops the majority of her analysis without considering religion. In the aftermath of September 11th, the Christian and Jewish religious affiliation of a number of aid organizations has become increasingly relevant, especially in humanitarian conduct in areas of religious tension, such as Afghanistan. However, the experience of several religiously affiliated organizations suggests that an organization’s position along the Wilsonian Dunantism spectrum is more relevant than religiosity. Furthermore, the majority of recent scholarly literature considers in some way the Wilsonian/Dunantist divide. Therefore, this study focuses specifically on the difference between these two types of humanitarian organizations.

Barnett characterizes Dunantist organizations as those that “define humanitarianism as the neutral, independent, and impartial provision of relief to victims of conflict and believe that humanitarianism and politics must be segregated.” This definition provides an improved platform for analysis in that it is based explicitly on the fundamental humanitarian principles of neutrality, impartiality, and independence. Barnett further describes how Dunantism is not merely an idealistic adherence to principles, but rather an informed belief about

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22 Michael Barnett *Humanitarianism Transformed* (Perspectives on Politics 2005) 728
effective humanitarian action. “Neutrality is both an end and a means to an end because it helps relief agencies gain access to populations at risk.”

In this way Barnett describes an underlying belief of the Dunantist school of thought: that in order to effectively provide humanitarian aid, relief organizations must have access to populations. Furthermore, Barnett’s description shows the Dunantist argument that politicalization can potentially have negative impacts on humanitarianism in two ways. First, via control: if a humanitarian organization is under the control of a political entity, then they are not free to pursue humanitarian action in the way they see fit. Second, via perception: if those in need, or other actors in a conflict zone perceive that a humanitarian organization is affiliated with a political then that humanitarian organization potentially loses access to populations or loses security, both have which could have negative consequences for medical outcomes. This dichotomy between control based impact and perception based impact will be revisited in later chapters.

The issue of access to those in need is referred to in humanitarian literature as humanitarian space. The term is a complicated concept that is often insufficiently defined and used “in different manners and for different purposes.” Several definitions are used to specify the concept for the context of this thesis. Paul Spiegel defines humanitarian space as “physical locations that are safe from attack in a conflict, respect for core humanitarian principles of independence, impartiality, and neutrality, and the ability of aid agencies to access

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23 Ibid 724
and help civilians affected by conflict.” The United Nations describes humanitarian space as the operating environment of relief organizations and states that “maintaining a clear distinction between the role and function of humanitarian actors and that of the military is the determining factor in creating an operating environment in which humanitarian organizations discharge their responsibilities both effectively and safely.” Humanitarian agencies themselves, such as MSF, use humanitarian space to describe “an environment in which humanitarian agencies could operate independent of external political agendas.”

Based on these definitions and principles, this thesis considers humanitarian space as the environment, both physical and political in which humanitarian organizations can effectively access populations and provide aid. The Dunantist school of thought requires humanitarian space for effective humanitarian action. The following more in depth description will demonstrate that Wilsonianism does not.

Barnett also contributes to the understanding of Wilsonian organizations and their motives. Stoddard and other scholars have noted the willingness of Wilsonian organizations to work with political entities. However, it is often characterized pejoratively as a “pragmatic” decision based in “political reality.” As such, Wilsonianism is often seen as the abandonment of principles rather than

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26 Hubert and Brassard-Boudreau
27 Ibid
a choice of operational philosophy with its own merit. Barnett recognizes the willingness of Wilsonian organizations to work with political actors, and proposes that such a choice is not an abandonment of principles, but rather an informed decision about how to best pursue goals. This decision is based in the Wilsonian belief that “it was possible and desirable to transform political, economic, and cultural structures so that they liberated individuals and produced peace and progress, desire to attack the root causes that leave populations at risk.”

Indeed, other scholars have suggested that addressing root causes is necessary and more effective than attempting to maintain independence. In this sense, the Wilsonian school of thought does not require humanitarian space for effective humanitarian action. Conversely, it is being aligned and integrated with government actors which allows organizations to most effectively address the root causes of need, and thus provide high quality humanitarian services.

Kenneth Anderson likewise considers the impact that scope plays in humanitarian organizations in his discussion of relief versus development. Anderson argues that attempting to address root causes of humanitarian need can be both potentially positive by addressing the socio-economic causes of need, but also negative in that pursuing development can compromise independence. Anderson suggests that by conducting non-relief development programs,

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29 Barnett Humanitarianism Transformed 728
30 Joel R. Chamey Upholding Humanitarian Principles in an Effective Integrated Response. (Ethics & International Affairs. 18:2 2004)
organizations are perceived as supporting larger political actors, and as such lose independence. This argument is plausible for development initiatives related to democratic strengthening or political liberty, however, with respect to nutrition or home rebuilding efforts, it is less persuasive.

Stoddard and Barnett are by no means the only scholars to have considered the Dunantist/Wilsonian divide, and are certainly not the only scholars advancing typologies of humanitarian organizations. Weiss, Dijkzeul and O’Malley, and Krause all propose various detailed typologies of humanitarian organizations. However, all of these typologies and definitions of humanitarian organizations are ordinal. They rely on spectrums or mental maps of organizations where organizations can only be considered more or less independent, neutral, impartial, subcontracting etc. than other organizations, yet the magnitude of that difference is not quantified. This study builds on these exiting typologies and produces a cardinal mechanism of analysis: an index of humanitarianism in which there will be quantifiable differences between organizations.

II. Related Scholarship

While numerous scholars have written about the importance of the variables considered in this study, humanitarian principles, and effective humanitarian aid, there has been little quantitative testing of either the impact of humanitarian principles or specific determinants of effectiveness. This section will briefly consider debate addressing these issues from a broad historical

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32 Weiss, Krause, Dennis Dijkzeul and Sean O’Malley ‘A Typology of International Humanitarian Organizations’ presented to the International Expert Conference. 24-25 May 2010
perspective, recent scholarship on humanitarianism in Afghanistan, and the
evidence supporting claims regarding humanitarian principles and effectiveness.

A series of articles in *Ethics & International Affairs* describes the debate
over appropriate and effective humanitarian action by first considering two sides
to the integration and coherence agenda. Next, the recent history of
humanitarianism is traced before Afghanistan specifically is analyzed. The debate
over integration and coherence considers the possibilities, advantages, and
disadvantages of integrating humanitarian and political action. The debate centers
around the humanitarian principles of impartiality, independence, and neutrality,
and in the language of this study, is fundamentally about the possibility,
advantages, and disadvantages for humanitarian action independent of
government influence.

Charney argues that integration does not compromise humanitarian
principles and that it offers the potential for more effective humanitarian action by
addressing root causes of need. Charney justifies this argument by positing that “a
golden age of humanitarianism never existed” and that rather than addressing
problems individually, “complementary agencies working together will strengthen
the humanitarian component of integrated missions and make a difference in
people’s lives.” 33

Nicolas de Torrente advances the opposite argument, that: “the implication
of the coherence agenda is that meeting lifesaving needs is too limited in scope,
and that the principles of impartiality, neutrality, and independence…should be

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33 Charney 1, 2
set aside in order to harness aid to the ‘higher’ goals of peace, security, and development.”

Using the historical example of humanitarian aid in Burundi, de Torrente argues that this prioritization of higher-level goals and the compromise of humanitarian principles had “catastrophic effects on the delivery of immediate lifesaving services for the population.”

Macrae takes a more broad historical perspective by analyzing integration from the conflicts in Rwanda to the Iraq. Macrae argues that the negative effect on humanitarian action resulting from the decreased independence of humanitarian actors operating under the coherence and integration framework can be seen in historical examples. Conflicts cited as evidence of the drawbacks of politicized humanitarian aid include Afghanistan prior to 2001, the Congo, Somalia, and Kosovo. However, this assertion is qualified with the statement that “The potential costs and benefits of such practical policies have been the subject of only limited independent research and evaluation…” This thesis seeks to provide such analysis.

Donini considers the above debate with specific respect to Afghanistan, using a historical analysis to analyze “an interesting range of respect/disrespect for basic humanitarian principles.” Donini argues that coherence and integration have become “euphemisms for the subordination of principles to political

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35 Ibid 4
36 Macrae Rwanda 33
37 Ibid 33
objectives.”

His historical analysis concludes that “when super power interests are at stake, principled humanitarianism suffers.” While never explicitly stated, the historical examples given support the argument that in situations where humanitarian principles suffer, so to do immediate medical relief outcomes.

Other recent analyses of Afghanistan include Macrae and Harmer (2003), which reviews the impact of the war on terror on humanitarianism and concludes that attempts to use humanitarianism as a tool for development and security have failed in both the pursuit of security and the provision of aid. Donini (2009) conducted sixty interviews with aid workers, and concludes that a “more principled and narrowly defined form of humanitarian action” is necessary in the face of declining humanitarian space and security threats. Goodhand and Sedra (2010) argue that the failure of international actors to engage sensitively with aid programs and procedures has “contributed to the steady unraveling of a fragile war-to-peace transition in Afghanistan.” Donini, Minear and Walker consider both Iraq and Afghanistan together, arguing that lines between humanitarian and political/military action have become blurred, with “tragic consequences for staff security and an ongoing threat to humanitarian operations.”

39 Ibid 21
40 Ibid 22
41 Macrae and Harmer 61
43 Jonathan Goodhand, & Mark Sedra. Who owns the peace? Aid, reconstruction and peace building in Afghanistan. (Disasters. 34(SI) 2010)
44 Antonio Donini, Larry Minear, & Peter Walker. The Future of Humanitarian Action: Mapping the Implications of Iraq and Other Recent Cases. (Disasters 28:2 2005)
The conflicts in Iraq and Afghanistan have lead to numerous assertions that first, humanitarian principles are being eroded, and second that this erosion has resulted in decreased humanitarian space and worsening outcomes of humanitarian action.\(^{45}\) However, the most concrete evidence advance in support of this assertion is that the politicization of humanitarian action by military forces has resulted in an increase in attacks on humanitarian actors, such as the 2003 bombing of the UN headquarters in Baghdad, as well as subsequent attacks on ICRC and MSF actors in both Iraq and Afghanistan.\(^{46}\) However, there remains the possibility that Iraq and Afghanistan are simply unique conflicts in which there is an inherent increased likelihood of attacks on humanitarian actors, that these attacks are not, in fact, the result of decreased humanitarian independence, nor do they effect medical outcomes. No systemic analysis of frequency of attacks, degrees of humanitarianism, or impact on medical outcomes has been conducted. This thesis seeks to perform such analysis.

**III. Humanitarianism as a Principal – Agent Relationship**

Principal-agent theory is, briefly, a theory based in economics which seeks to explain the organizational structure and dynamics of a relationship in which one actor, the principal, delegates authority to complete a certain action to a second actor, the agent. The use of the theory in this thesis will be considered in chapter three. The following section briefly reviews the theory’s relevance to political science and considers the debate over the application of principal-agent theory to humanitarianism.

\(^{45}\) Macrae and Harmer
\(^{46}\) Donini, Minear, and Walker 192
While principal-agent theory began as a tool to analyze economic behavior, it was soon applied to other fields. Scholars cite the relevance of principal agent theory to international relations beginning with Alchian and Demsetz’s 1972 article on economic organization. The theory has subsequently been applied to various aspects of international politics. Besley provides one of the most technical considerations of the theory as it applies to governance, and raises several applications. Of most relevance to this thesis, Besley considers the relative merits and drawbacks of government and NGO provision of public goods. In as much as healthcare can be considered a public good, there is potential for the application of principal agent theory to health care in general, and specifically to international humanitarian medical care. Several scholars have previously applied the theory to humanitarianism.

Karen A. Mingst argues that given the increasing proliferation of NGOs in the international community, as well as several characteristics of NGOs, the application of the principal-agent theory to humanitarianism is warranted. As Mingst states, with the notable exception of the International Committee of the Red Cross, international humanitarian organizations do not have independent legal status in international law, and thus “exist under the moral authority of a particular state.” Furthermore, NGOs rely significantly on government funding,

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grants, contracts, food aid, technical assistance, and security. Additionally, humanitarian actors must gain access to those in need, and in that sense are beholden to the state with sovereignty over those persons. Finally, NGOs fulfill the role of an agent in that they possess unique skills, knowledge, and expertise, and often interests different from their donors.

Barnett argues that the theory, and especially the issue of agent agency is applicable, and has recently become increasingly relevant to the international community.

States and international institutions can now compel humanitarian agencies to act in ways counter to their interests and principles. Although states have historically vacillated in their desire to use humanitarian action to serve their interests, the 1990s were unprecedented to the extent that states attempted to impose their agendas on agencies.

Goodhand and Sedra, and Anderson provide further support for the assertion that humanitarian organizations can, and to varying degrees currently are, controlled by state interests. Rauchhaus considers the specific issues of moral hazard, adverse selection and the commitment dilemma in applications of principal-agent theory to humanitarianism. However, humanitarian organizations contest the notion that they are the agent of states of the

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50 Ibid 4
51 Mingst argues that humanitarian NGOs can be both agents of a principal (a state) and principals of a separate agent (those who receive aid). This thesis does not find the second characterization of humanitarian NGOs as principals to be convincing or applicable.
52 Barnett Humanitarianism Transformed 731
53 Goodhand and Sedra 2010
54 Anderson 2004
international community, arguing that such control is antithetical to the principles of humanitarianism.\textsuperscript{56} Furthermore, such humanitarians argue those who apply principal-agent theory to the humanitarian sector blur the lines between state actors and humanitarians, and endanger aid workers and local populations.\textsuperscript{57}

This debate over the application of principal-agent theory to humanitarianism is fundamentally a debate over independence and neutrality, two of the most valued humanitarian principles. As Mingst notes, international NGOs derive a significant degree of legitimacy from their (real or perceived) independence, impartiality and neutrality.\textsuperscript{58} As such, the theory and its implications are of paramount importance to humanitarian actors, who justify their actions, seek access, and depend for security, on the recognition of their humanity. While this thesis does not assume that all humanitarian organizations are the agent of some principal, it finds principal-agent theory to be a useful tool for the analysis of international humanitarianism.

\textsuperscript{57} Ibid
\textsuperscript{58} Mingst 5
3. Theory

This chapter will establish the theoretical basis of the thesis. As discussed above, scholars have previously applied principal-agent theory to humanitarianism. However, the potential of the theory to complement quantitative analysis has not been explored. Likewise, the relationship between independence and outcomes in humanitarianism has been addressed at length on an ad hoc basis from historical, moral, and practical perspectives, but a strong theoretical basis and comprehensive quantitative test are lacking.\(^{59}\) This section seeks to address the theoretical gaps in the literature by considering the uses and limitations of principal-agent theory. It will first establish the theoretical foundations for an index of humanitarianism. Then game theory will be used to develop testable hypothesis regarding the relationship between independence and effectiveness under different conditions.

I. Principal-Agent Theory

At the most basic level principal-agent theory deals with two actors, a principal, who delegates responsibility to a second actor, the agent. The principal enters the relationship in order to lower the costs of pursing some interest; while the agent enters the relationship because doing so will enhance its capacity to pursue a separate, but related, interest. Critical to the relationship is that fact that

\(^{59}\) Roberts 51
the principal and agent each have different interests, yet also have different tools and advantages.\textsuperscript{60}

In this situation, while the principal has lowered costs by delegating responsibility, they are confronted with the necessity to ensure that the agent carries out that action according to the principal’s interests. As such, the principal develops mechanisms of control over the agent. These control mechanisms, and the effect that they have on the agent, are of extreme relevance to this thesis’s application of the theory to humanitarianism. The power to structure terms of the relationship and develop these mechanisms of control come from a benefit that the principal can offer the agent. This benefit is often funding, but there are other potential benefits to the agent, such as access to technology, information, or partnerships. Furthermore, the principal must balance increased control with the knowledge that if the agent feels too restricted, they will leave the relationship, and the principal will have lost an opportunity to increase efficiency.

The agent, conversely, has his or her own interests, and seeks to maintain independence from the principal in order to pursue that interest unhindered. Agents are often chosen because of specific expertise, knowledge or skills, and can use these attributes to bias the information that they provide to the principle, resulting in information asymmetry.\textsuperscript{61} However, the agent has entered into the

\textsuperscript{60} Though interests are often similar, if interests were identical, then the party with the ability to perform the desired action at lower cost would simply do so and would have no need to enter into a relationship with the less efficient actor.

relationship in pursuit of enhanced capacity through access to the principal’s resources, and thus must balance its own interests and preferences with the need to maintain a relationship with the principal.

Thus principal-agent theory is a delicate struggle for power over control of the ultimate action taken by the agent. Prior to the relationship, the principal had no control over the action, and the agent had full control. The agent has relinquished some control in exchange for enhanced capacity, and the principal has supplied that capacity enhancement in exchange for some control. In other terms, the theory fundamentally addresses the independence of the agent, or more specifically, the independence of the agent to pursue their original interest. In principal-agent relationships where the principal exercises strong control over the agent and thus controls the performance of the action through various accountability, incentive, and contractual mechanisms, the independence of the agent is minimal. Similarly, in relationships in which the agent is more effectively able to make use of their information advantage, they are more in control of the action and enjoy greater independence.

As discussed above, a number of scholars have begun to analyze humanitarianism through a principal-agent framework. In humanitarianism, the principal is a donor, either of money or non-monetary resources, and is often a government, international organization or foundation. This study will consider governments. The agent is the humanitarian actor, often an NGO. Governments can decrease the cost of pursuing some interest, often security, by delegating

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62 Mingst, Barnett *Humanitarianism Transformed*, Rachhaus, Goodhand and Sedra
authority and providing resources to an NGO. These lower costs come from
decrease outlays of resources and decreased risk. First, while the government has
committed resources to the NGO, the cost of these resources are less than the cost
of mobilizing, training, and transporting personnel and running programs.
Furthermore, the government does not risk the loss of personnel and lowers the
risk of diplomatic costs of a humanitarian mission gone awry. As discussed in the
opening chapter, since the end of the Cold War, governments have increasingly
chosen to use humanitarian action in such a manner.

The agent increases capacity to pursue their interest, for example
improved medical outcomes, largely by increasing funding and access to non-
monetary resources. While some humanitarian NGO’s have developed revenue
generating mechanisms or significant bases of private donors, significant funding
for humanitarian action still comes through governments and intergovernmental
organizations. Humanitarian actors have information and skills that make them
ideal implementers, such as strong local connections and knowledge of cultural
context. NGO personnel have been trained, and have skills needed for effective
humanitarian action such as medical training or language capacity.

By being affiliated with such humanitarian action, governments seek to
improve security through development and to improve their image, “winning
hearts and minds.”\textsuperscript{63} Governments act as principals would be expected to by
exerting varying degrees of control over the relationship through their control of

\textsuperscript{63}This phrase has become strongly associated with U.S. diplomacy and military
action. Elizabeth Dickinson provides a discussion of the historical evolution of the
term. Elizabeth Dickinson, \textit{A Bright Shining Slogan}. (Foreign Policy Sept/Oct
2009).
funding and non-monetary resources. Often governments seek to increase accountability by requiring yearly or often monthly reports detailing how funds were spent and what measurable objectives were achieved. Funding schemes are often structured to ensure that resources are put to good use, with sub-optimal performance punishable by the termination of yearly dispersals of resources.

Previous scholarship and the above discussion establish the utility of principal-agent theory with respect to humanitarianism. However, with any application of theory limitations must be considered. Gary Miller establishes six core assumptions of principal-agent theory, leading to two primary results. The core assumptions are: (1) agent impact, (2) information asymmetry, (3) asymmetry in preferences, (4) initiative that lies with the principal, (5) backward induction based on common knowledge, and (6) ultimatum bargaining, resulting in outcome based incentives and efficiency tradeoffs.\(^{64}\) Humanitarian action adheres to all of these assumptions.

However, in a traditional principal agent framework, the observed outcome variable is the principle’s variable of interest, and the agent’s interests are to first continue to be compensated for work, but second use the information asymmetry they have regarding their level of work to shirk as much as possible. However, in this study, the outcome variable of interest is the agent’s primary interest, medical outcomes, while the impact of NGO action on the security environment and the principal’s desire to “win hearts and minds” is much less observable.

Based on this difference, principal-agent theory is not used to analyze the ultimate outcome variables of security or medical interests. Rather the theory is used to analyze the ways in which a principal (government) can exercise control over an agent (NGO), and how those mechanisms of control affect the independence of the agent (NGO). This analysis will result in a quantitative index of humanitarianism. The principal’s control over the agent is primarily manifested in the ability to structure incentives.\textsuperscript{65} Traditionally this involves structuring contracts and punishment schemes. Thus the dependence of NGOs on donors for funding, both the extent of that dependence, and the nature of the specific donors, will be incorporated into the index. The specific construction of the index will be described in chapter five. Furthermore, the extent to which a principal’s control over an agent is relevant depends to a large extent on how much the principal attempts to alter the agent’s actions. If interests are extremely divergent, principals must exercise greater control and incentivize significant changes in agent conduct. However, if interests differ slightly, incentive structure must only induce a small change in behavior. As such, the extent to which restricted funding changes NGO action will also be a component of the index. Finally, the degree of NGO dialogue and cooperation with various actors affiliated with donors (for example military forces and government personnel) is incorporated in order to provide some measure of principal-agent interaction. While other factors specific to humanitarianism will be accounted for in order to make the index more robust, principal-agent theory provides the central foundation for the creation of the

quantitative independent variable that establishes varying degrees of humanitarianism.

II. Independence to Impact – An Application of Game Theory

As described above, scholars of humanitarianism have advanced various arguments regarding the relationship between independence and effectiveness. These arguments are largely divided into two schools of thought, Dunantism and Wilsonianism. Arguments from both schools are rationally consistent and describe situations in which independence is hypothesized to be both negatively and positively correlated with medical outcomes. Broad historical reviews and numerous complicated conditions have been analyzed in the debate between these two schools of thought. However, this theoretical section will systematize and simplify this analysis by addressing two simple questions. First, is increasing humanitarianism associated with increasing humanitarian space? Second, is increasing humanitarian space the most urgent requirement for improved medical outcomes in a conflict setting?

These two questions are drawn directly from the debate between Wilsonianism and Dunantism. In order for the Dunantist causality to hold, the answer to both questions must be yes. However Wilsonian humanitarians would argue that this is not always the case. As such, these two questions lead to two conditions, each with two possible values. Humanitarianism is either a relevant determinant of humanitarian space, or it is not. Likewise, humanitarian space is either the most urgent requirement of medical needs in a conflict setting, or it is
not. Based on the Wilsonian argument, if humanitarian space is not the most urgent requirement of medical needs, then an integrated approach to root causes of disease is. These two conditions establish four possible states of nature.

This theoretical section will use game theory in order to show that the expected correlation between independence and effectiveness changes based on the value of these conditions. First the basic game will be described in detail. The game consists of several decisions made by a government and NGO actor that will establish the varying levels of independence the NGO. The game results also in payouts to the two actors; the government receives a security payout and the NGO receives a medical payout. However, as there are not standardized measures of “security” or “medical” payouts, rather than establishing units of payouts, the game will establish inequalities. To do so, all possible outcomes of the game will established, and assigned a number (outcome 0, outcome 1…outcome 4). Next, inequalities regarding the medical and security payouts of these outcomes will be examined.66

However, it is not possible to solve the game under the basic assumptions. Therefore, the repeated game will be considered under each of the four states of nature established by the conditions described above. Backwards induction will be used to solve for sub-game perfect Nash equilibrium under each state of nature. Differing solutions to the game will result in differing correlations between independence and effectiveness. The resulting correlations prove that in order for the Dunantist hypothesis that independence is positively correlated with medical

66 For example, is the medical payout of outcome 0 less than or greater than the medical payout of outcome 1? Outcome 2?
outcomes to be true, first, humanitarianism must be a relevant determinant of humanitarian space, and second, increasing humanitarian space must be more relevant to improving medical outcomes than addressing root causes of disease.

The Game

Environment: This section describes a two stage, two-player game played between a government actor (USG) and a non-governmental medical organization (NGO) in a conflict setting. USG seeks to maximize security, and the NGO seeks to maximize medical outcomes.

Decision Space: USG is presented with a choice regarding funding, with three options: Offer funding with high restrictions, offer funding with low restrictions, and do not offer funding. The NGO is then presented with a choice regarding acceptance of funds and actions. The NGO can accept funding and not change conduct to comply with restrictions, can accept funding and change conduct to comply with restrictions, or not accept funding, and not change conduct. The cumulative outcomes of these choices are denoted \((S_i, M_i)\) for \((\text{Security Outcome}_i, \text{Medical Outcome}_i)\).
Several assumptions are necessary to establish the framework for the game. It is assumed that NGOs are medically relevant actors; this assumption is necessary for NGO behavior to be analyzed as a relevant determinant of medical outcomes and thus for this game structure to be used. The assumption is supported empirically for Afghanistan as 80% of medical care in Afghanistan is provided by NGOs.\(^6\) Next, it is assumed that transaction costs of negotiating funding are minimal. This assumption allows all outcomes in which a funding relationship does not occur to result in equal outcomes \((S_0, M_0)\).

The most significant assumption is that there is one principal, who acts as a funding agent, and that this funding agent is the United States Government. While the US government does fund a significant portion of the funding for healthcare in Afghanistan, funding is channeled through the Ministry of Public Health of Afghanistan. The Current Status and Role of Civil Society Organizations in Health Sector of Afghanistan (2009). Received from Mr. Hedayatullah Naseri of the World Health Organization. 6

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\(^6\) Afghanistan Ministry of Pubic Health *The Current Status and Role of Civil Society Organizations in Health Sector of Afghanistan* (2009). Received from Mr. Hedayatullah Naseri of the World Health Organization.
Health, and there are multiple other funding sources, such as the World Bank or the European Commission. The assumption of one principal (USG) was made in order to establish a comprehensible model. The assumption is justified on three grounds, first the current power of the United States in Afghanistan. While seeking to develop Afghanistan as an independent nation, the United States retains a significant presence and power in Afghanistan. Second, USAID does in fact provide a significant portion of funding for the program analyzed in this study. Finally, while there are numerous different donors, those donors are relatively homogenous. This statement is not intended to suggest that the World Bank and European Commission are exactly the same as the United States, but rather that they share many similar and relevant qualities. They are sources of funding outside of Afghanistan, with their origin in rich, western states. This assumption is relaxed in the quantitative portion of the thesis, as the difference between sources of funding is incorporated into the humanitarian index. It is also assumed that there are multiple agents (NGOs).

With the game and assumptions established, inequalities in the independence reflected in each branch, as well as medical and security outcomes must be examined in order to attempt to solve via backwards induction. In this game, an NGO can compromise independence by accepting funding or complying with restrictions. Furthermore, the greater the restrictions complied with the more independence is compromised. This yields the following inequalities of independence. The most independent options are those in which there is no funding relationship, or all outcomes with payouts of \((S_0, M_0)\). These will be
referred to as outcomes 0. Less independent outcomes involve accepting funding but not complying with restrictions, shown by branches ending in \((S_1, M_1)\) and \((S_3, M_3)\), referred to as outcomes 1 and 3, respectively. Next, complying with low restrictions, with outcome \((S_4, M_4)\), referred to as outcome 4, and finally, the least independent path is to comply with high restrictions \((S_2, M_2)\), outcome 2. Symbolically, the independence of outcomes can be described as: outcomes 0 > outcome 3 = outcome 1 > outcome 4 > outcome 2.

Certain assumptions about the impacts of the decisions described on outcomes can be made. For security outcomes these assumptions are the following: 1) inducing a change in NGO behavior increases security, 2) the greater the change in behavior, the greater the increase in security, 3) there are monitoring and evaluation costs, beyond the costs of funding, of restrictions, 4) these costs increase as the amount of restrictions increases, and 5) there are other uses of funds which could increase security 6) These other options are less cost effective than an induced change but more cost effective than funding an NGO without inducing a change. This final assumption is the most controversial, it is made on the grounds that if it were not true, there would be no incentive for USG to fund humanitarian action, USG does fund humanitarian action, and views it as an effective and necessary part of operations in Afghanistan, as such, the assumption is made. These assumptions yield the following sets of inequalities describing preferences over security outcomes:
<table>
<thead>
<tr>
<th>Inequalities</th>
<th>Justification</th>
<th>Assumptions Used</th>
</tr>
</thead>
<tbody>
<tr>
<td>$S_2 &gt; S_1$</td>
<td>Inducing a change in NGO behavior results in higher $S_i$ than funding an NGO and not inducing a change in behavior</td>
<td>1, 5</td>
</tr>
<tr>
<td>$S_4 &gt; S_3$</td>
<td></td>
<td></td>
</tr>
<tr>
<td>$S_2 &gt; S_0$</td>
<td>Inducing a change in NGO behavior increases $S_i$ in a cost effective way</td>
<td>6</td>
</tr>
<tr>
<td>$S_4 &gt; S_0$</td>
<td></td>
<td></td>
</tr>
<tr>
<td>$S_0 &gt; S_1$</td>
<td>No relationship allows funds to be used in other security enhancing ways, which is preferable to paying for, yet not achieving a change in NGO behavior</td>
<td>5, 6</td>
</tr>
<tr>
<td>$S_0 &gt; S_3$</td>
<td></td>
<td></td>
</tr>
<tr>
<td>$S_2 &gt; S_4$</td>
<td>NGO behavior change which complies with more stringent restrictions results in greater increases in $S_i$</td>
<td>1, 2</td>
</tr>
<tr>
<td>$S_3 &gt; S_1$</td>
<td>Monitoring costs increase with the level of restriction, failed less stringent restrictions are less costly than failed more stringent restrictions, diverting less funds from other security enhancing options</td>
<td>4, 6</td>
</tr>
</tbody>
</table>

These inequalities cumulatively yield $S_2 > S_4 > S_0 > S_3 > S_1$. USG thus prefers first high restricted funding resulting in changed NGO behavior, then low restricted funding resulting in changed NGO behavior, then no relationship, then low restricted funding resulting in no change in NGO behavior, then high restricted funding resulting in changed NGO behavior.

While there is sufficient information to create an inequality involving all five possible security outcomes, there is not sufficient information to do so for medical outcomes. However, certain base assumptions and inequalities can be established. 1) All else equal increased funding increases medical outcomes 2) all else equal, complying with restrictions imposed by an actor who prioritizes security decreases medical outcomes 3) all else equal as restrictions increase, the negative impact on medical outcomes increases.
Table 2: Medical Outcomes

<table>
<thead>
<tr>
<th>Inequalities</th>
<th>Justification</th>
<th>Assumptions Used</th>
</tr>
</thead>
<tbody>
<tr>
<td>$M_1 &gt; M_2$</td>
<td>Increased funding without complying with restrictions is yields higher $M_i$ than increased funding with complying restrictions</td>
<td>2</td>
</tr>
<tr>
<td>$M_3 &gt; M_4$</td>
<td>Complying with low restrictions yields higher $M_i$ than complying with high restrictions</td>
<td>3</td>
</tr>
<tr>
<td>$M_3 = M_1$</td>
<td>The magnitude of restrictions is irrelevant if they are not complied with.</td>
<td>1, 2</td>
</tr>
</tbody>
</table>

Cumulatively, these inequalities yield $M_3 = M_1 > M_4 > M_2$. However, there are no inequalities regarding medical outcome $M_0$. As such, the initial game cannot be solved because there is not sufficient information to establish the relative values of all $M_i$. The lack of complete preferences over the possible choices initially appears to violate one of the foundational axioms of game theory, that actors must be able to state preferences between all outcomes.\(^{68}\) However, the distinction between preferences over outcomes and preferences over choices shows that this is not the case.\(^{69}\) This distinction considers that an actor could have a consistent preference for outcomes which maximize some variable, yet not have sufficient information to determine which of the choices they are presented with maximizes that variable. Morrow explores this difference with an example of preferences over political representatives.\(^{70}\) In the example, a voter wishes to elect the politician who maximizes national security, yet does not know which of two candidates does so. As such, the inability to choose between candidates results from a lack of information, rather than incomplete preferences. A similar lack of information is present in the game considered here regarding medical outcomes.


\(^{69}\) Morrow 7-8

\(^{70}\) Morrow 7
However, by considering the game under each of the four states of nature described by the two conditions, 1) the primary determinant of humanitarian space and 2) the primary determinant of medical outcomes, further information is available, and the game can be solved. The remainder of this theory section describes these conditions in more detail and shows that changes in these conditions change the payouts and results of the game, and thus also change the correlation between independence and effectiveness.

Conditions

The conditions considered here are meant to explicitly establish the base level requirements for a Dunantist argument to be true, while allowing deviation where Wilsonian critics suggest the Dunantist causality fails. The Dunantist argument, in short, is that humanitarianism should be independent of politics, that NGOs should be independent from governments, and that by maintaining their independence, they preserve humanitarian space, which is a necessary and sufficient condition for the effective delivery of medical care. This argument hinges directly on two assertions, first that NGO independence results in increased humanitarian space, and second that increasing humanitarian space increases medical outcomes. Both of these assertions are arguable, and as such, the form the conditions that underlie the theory of the thesis.

In order for the Dunantist argument to hold, NGO action must be a significant determinant of both the politicization of aid, and the overall presence of humanitarian space. This condition has two possible states, either NGO behavior is a sufficiently powerful factor to affect the overall conditions of
humanitarian space, or it is not and is overwhelmed by the political actions of other actors and security concerns of the conflict.

The second condition is more directly drawn from the Wilsonianism/Dunantism debate, and addresses the primary determinant of medical outcomes. While the Dunantist argument holds that medical effectiveness is derived from humanitarian space and unfettered access to those in need, Wilsonianism holds that it is more effective to address root causes of need; an approach enhanced by multi-sectored cooperation and integration. These two approaches are relatively mutually exclusive, as in order to have significant humanitarian space (freedom from political actors) an organization cannot be integrated into government programs that seek to address root causes of need. Thus, this condition also has two possible states; either having humanitarian space and access to patients is a more important determinant of medical outcomes than an integrated approach to root causes, or the opposite is true. The value of this condition will largely be determined by the main sources of morbidity and mortality experienced in a country, as well as certain specific aspects of the conflict and existing medical system. These determinants will be further examined in chapter four.

The preceding conditions yield four possible states of nature for a conflict medical setting. These states of nature and the corresponding medical inequalities they imply are summarized in table 3. NGO conduct is either a relevant determinant of humanitarian space or it is not, and the primary determinant of

71 Spiegel, Checchi, Colombo, Palk 1
medical outcomes is either humanitarian space and access or addressing root causes and integration.

Table 3: States of Conditions and Inequalities of Medical Outcomes

<table>
<thead>
<tr>
<th>NGO Conduct Relevant to Humanitarian Space</th>
<th>Primary Determinant of Medical Outcomes</th>
<th>Inequalities Implied</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>Humanitarian Space/Access</td>
<td>$M_0 &gt; M_3 = M_1 &gt; M_4 &gt; M_2$</td>
</tr>
<tr>
<td>Yes</td>
<td>Root Causes/Integration</td>
<td>$M_3 = M_1 &gt; M_4 &gt; M_2 &gt; M_0$</td>
</tr>
<tr>
<td>No</td>
<td>Humanitarian Space/Access</td>
<td>$M_3 = M_1 &gt; M_4 &gt; M_2 &gt; M_0$</td>
</tr>
<tr>
<td>No</td>
<td>Root Causes/Integration</td>
<td>$M_3 = M_1 &gt; M_4 &gt; M_2 &gt; M_0$</td>
</tr>
</tbody>
</table>

The inequalities stated here differ from those possible based on the basic game framework in that they include $M_0$. Before justifying the varying placement of $M_0$ observe that the inequality implied by the basic game $M_3 = M_1 > M_4 > M_2$ is preserved in all of the above inequalities. Row one reflects the Dunantist argument, in which independent NGO action increases humanitarian space, which leads to increase medical outcomes, as such $M_0$ is stated to be the most preferred medical outcome. Row three reflects part of the Dunantist argument, in that humanitarian space is the most relevant determinant of medical outcomes, but the argument is not completely satisfied, because NGO action is not the primary determinant of humanitarian space. This is likely because the other major determinant, physical security overwhelms any positive effect of NGO independence. As such, choosing to be independent does not improve the humanitarian space available to an NGO, and therefore does not improve medical outcomes, so $M_0$ represents a poor medical outcome. Rows 2 and 4 represent the Wilsonian argument, that it medically is more effective to address root causes. While these rows differ in their determinants of humanitarian space, this difference is largely irrelevant, because humanitarian space is not the primary
determinant of medical outcomes, root causes is. Independence negatively affects an organization's ability to address root causes, because it prevents multi-sectored approaches and the ability to be integrated. Therefore, M₀ is a poor medical outcome in both of these rows.

Repeated Game

With the preceding inequalities established, the game can be reanalyzed under each set of conditions. However, in order to more accurately portray reality, a repeated game framework will be used. In this repeated game, with the additional inequalities established in each state of nature, the sub-game perfect Nash equilibrium can be found via backwards induction. This analysis will consider a two period game, but seeks to show the relevance of repetition on a larger scale.

There are additional assumptions resulting from repetition. It is assumed that there is perfect monitoring and punishment of NGO behavior change. As such, if an NGO accepts funding and does not comply with restrictions, the game ends, and the only punishment available to the principal is to withdraw funding. Furthermore, if the government ever decided to not grant funding, the game ends, and if the NGO ever rejects funding, the game ends. Once the game is over, payouts (S₀, M₀) are received for all remaining iterations of the game. However, funding is generally allocated via a contract with the same terms for multiple years, as such, if USG offers funding, and the NGO accepts and changes behavior to comply with restrictions, the contract is still in effect, and the same offer of
funding exists in the next time period. The potential summed outcomes of this game are summarized in table 4.

**Table 4: The Repeated Game**

<table>
<thead>
<tr>
<th>USG Time 1</th>
<th>NGO Time 1, Outcome</th>
<th>USG Time 2</th>
<th>NGO Time 2, Outcome</th>
<th>Total Outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>AØΔ, (S₁, M₁)</td>
<td>No offer</td>
<td>No Choice, (S₀, M₀)</td>
<td>(S₁, M₁) + (S₀, M₀)</td>
</tr>
<tr>
<td>Restricted</td>
<td>AΔ, (S₂, M₂)</td>
<td>Same offer</td>
<td>AØΔ, (S₁, M₁)</td>
<td>(S₂, M₂) + (S₁, M₁)</td>
</tr>
<tr>
<td>Funding</td>
<td>AΔ, (S₄, M₄)</td>
<td>Same offer</td>
<td>AØΔ, (S₃, M₃)</td>
<td>(S₄, M₄) + (S₃, M₃)</td>
</tr>
<tr>
<td>Low</td>
<td>R, (S₀, M₀)</td>
<td>No offer</td>
<td>No Choice, (S₀, M₀)</td>
<td>2 (S₀, M₀)</td>
</tr>
<tr>
<td>Restricted</td>
<td>AΔ, (S₂, M₂)</td>
<td>Same offer</td>
<td>AΔ, (S₄, M₄)</td>
<td>2 (S₄, M₄)</td>
</tr>
<tr>
<td>Funding</td>
<td>R, (S₀, M₀)</td>
<td>No offer</td>
<td>No Choice, (S₀, M₀)</td>
<td>2 (S₀, M₀)</td>
</tr>
<tr>
<td>No</td>
<td>No Choice, (S₀, M₀)</td>
<td>No offer</td>
<td>No Choice, (S₀, M₀)</td>
<td>2 (S₀, M₀)</td>
</tr>
<tr>
<td>Funding</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Solving the Game**

In order to solve the game via backwards induction, the NGO’s choice of medical outcomes from available options must be established. In Table 4 above the NGO can only choose between total outcomes in adjacent cells of the final column. As discussed above, NGO preferences over medical outcomes depend the state of the two conditions regarding humanitarianism, humanitarian space, and medical outcomes. Under the conditions expressed by row one of table 3, with \( M₀ > M₃ = M₁ > M₄ > M₂ \) the NGO prefers outcome \( M₀ \), and as such always rejects funding in time 1 and guarantees that the most desired possible outcome of \( 2(S₀, \)
M_0) always results. In this situation, USG preference over security does not affect the sub game Nash equilibrium, because regardless of what USG does in time 1, the total outcome will be 2 (S_0, M_0).

Under the conditions of rows 2-4 in table 3 with M_3 = M_1 > M_2 > M_4 > M_0 the NGO’s most preferred individual outcome is either (S_1, M_1) or (S_3, M_3) depending on the level of funding offered. However, if the game is repeated, pursuing this outcome in time 1 by accepting funding and not changing conduct ends the game and guarantees that in time 2 no funding will be offered, and the outcome will be (S_0, M_0).

In a two period game, the best possible medical outcome is (M_2) + (M_1). In order to achieve this outcome, the NGO must first accept high restricted funding in time 1 and comply with restrictions, and then reject funding in time 2. However, rejecting funding in time 2 is only ideal if the NGO is certain the game will end after period two regardless of their actions. If there is the possibility that there is a third round, then the NGO is better off accepting funding and complying with restrictions again in time 2 in order to continue the contract to time 3, where they can accept funding and not comply. This path would yield a total outcome of (M_2) + (M_2) + (M_1) which is greater than the outcome of (M_2) + (M_1) + (M_0) that would have resulted had the NGO rejected funding in time 2. This applies to NGO choices if low funding is offered as well, though outcomes would replace (M_2) with (M_4) and (M_1) with (M_3), though the overall strategy stays the same. Furthermore, this logic can be extended for a game of any length with a termination point unknown to the NGO.
As such, unless all conditions of the Dunantist argument are satisfied, when presented with the choice to change behavior or not change behavior, it is in the NGO’s medically maximizing best interest to change behavior if there is another iteration of the game to be played. If there is not, then it is in the best interest of the NGO to accept funding and not change.

In many conflict medical situations, the ending period of medical need is generally not known, as such, operating under the logical assumption that there will be further time periods, it is in the NGO’s best interest (when all conditions of Dunantism are not satisfied) to accept funding and change, resulting in outcomes \( n (S_2, M_2) \) or \( n (S_4, M_4) \), where \( n \) is the number of time periods past. Knowing this, and with security preferences of \( S_2 > S_4 > S_0 > S_3 > S_1 \), USG will offer high restricted funding in time 1, resulting in the sub game Nash equilibrium of \( n (S_2, M_2) \) for a repeated game whenever all conditions of Dunantism are not satisfied. Yet, when all conditions of Dunantism are met the Nash equilibrium is \( n (S_0, M_0) \).

Recall the independence inequality outcomes \( 0 > \text{outcome 3} = \text{outcome 1} > \text{outcome 4} > \text{outcome 2} \). As shown, under conditions of row 1 in table 3 (NGO action is the primary determinant of humanitarian space and humanitarian space is the primary determinant of medical outcomes) the ideal outcome medically is \( n (S_0, M_0) \), this outcome; outcome 0 is also the most independent outcome and the sub-game Nash Equilibrium. Thus, increasing independence should result in increasing medical outcomes. However, in all other situations, the ideal strategy for the medically maximizing NGO results in a sub-game Nash equilibrium of \( n \)
(S₂, M₂) or the least independent outcomes. As such, under these conditions (rows 2-4 in table 3) increasing independence would lead to decreased medical outcomes.

**Hypotheses**

Given the results of the repeated game above, this analysis leads to the following hypothesis regarding the correlation between independence and effectiveness.

<table>
<thead>
<tr>
<th>NGO Conduct Relevant to Humanitarian Space</th>
<th>Primary Determinant of Medical Outcomes</th>
<th>Hypothesized correlation between Independence and Effectiveness</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>Humanitarian Space/Access</td>
<td>Positive</td>
</tr>
<tr>
<td>Yes</td>
<td>Root Causes/Integration</td>
<td>Negative</td>
</tr>
<tr>
<td>No</td>
<td>Humanitarian Space/Access</td>
<td>Negative</td>
</tr>
<tr>
<td>No</td>
<td>Root Causes/Integration</td>
<td>Negative</td>
</tr>
</tbody>
</table>

This framework establishes a higher standard for a positive correlation between independence and effectiveness than for a negative correlation. A positive correlation requires both conditions to be “met” any combination of one or two “unmet” conditions leads to the expectation of negative correlation. This is not meant in any way to suggest a moral or philosophical belief regarding the importance of independence, but rather a practical set of conditions that I believe are necessary. It seems to be rational that there would be higher standards for effectiveness of aid provided in conflict environments by those who are unarmed and unaligned.

The goal of this theory was to simplify and systematize the qualitative analysis of humanitarian action. By establishing two conditions, whose variance should explain varying correlations between independence and effectiveness, the
theory allows qualitative analysis to focus explicitly on those two conditions. Furthermore, these conditions can also be quantitatively tested. In the following chapter, qualitative hypotheses about the conditions of the primary determinant of humanitarian space and the primary determinant of medical outcomes will be made. These hypotheses are then tested quantitatively and lead to the overall hypothesis of the thesis regarding the correlation between independence and medical effectiveness in Afghanistan.
4. Argument and Case Studies

This chapter seeks to provide the qualitative grounding for the thesis in two ways. First it will make arguments about the two conditions established in chapter three in order to support the final hypothesis of the thesis, that the degree of humanitarianism of medical NGO’s is positively correlated with medical outcomes. Second, it will provide brief case studies in order to justify the question and methods of analysis of the thesis.

While the thesis ultimately will provide quantitative analysis of humanitarianism in Afghanistan, qualitative analysis is appropriate for several reasons. First, the preceding theoretical section seeks to systematize and focus, not eliminate, qualitative analysis. Thus the following qualitative analysis is the required next step of the theory developed in chapter three. Second, such systematized and focused qualitative analysis establishes the hypotheses tested in the quantitative chapters. Third, as previous scholarship on humanitarianism in conflict settings is overwhelmingly qualitative, this section situates the thesis within that analysis.

Furthermore, the importance of the independence, impartiality, and neutrality of humanitarian actors in a conflict setting may not be immediately apparent. The case study portion of this section seeks to illustrate the importance of these characteristics to actors on the ground. These case studies are not intended to serve as evidence in support of the hypothesis of the thesis, but rather as illustrative examples, which show that independence, impartiality, and neutrality are variables worthy of analysis. Additionally, the case studies will
show that experiences of humanitarian actors in conflict settings can vary greatly across time, and from organization to organization. As such, the more comprehensive quantitative approach that looks at countrywide trends over time is valuable. However, the quantitative section of the thesis is understandably limited by data constraints. As discussed below, the specific cases considered were selected to broaden the overall scope of analysis of the thesis by considering organizations that could not be included in the quantitative section. The qualitative and quantitative methods employed each have value, as well as limitations. By using mixed methods; the thesis seeks to gain from both methods of analysis.

I. Determinants of Humanitarian Space

As discussed in chapter two, the presence of humanitarian space in Afghanistan is a subject of significant concern in the humanitarian community. There have undoubtedly been significant challenges to humanitarian space, and some have argued that the actions of political and military actors have destroyed the humanitarian space for all aid workers in Afghanistan. These arguments will be considered below. Ultimately, however, this section argues that statements made by belligerents of the conflict, the selective targeting of attacks on politicized humanitarian aid, and the experience of certain actors and patients indicate that while humanitarian space may be at risk, the conduct of NGOs is still a significant determinant of that humanitarian space.

72 Macrae and Harmer *Humanitarian Action and the ‘global war on terror’*
There have been unfortunately frequent attacks on humanitarian aid workers in Afghanistan in the nearly ten years since the U.S. invasion. Several scholars and aid workers have argued that these attacks indicate a lack of humanitarian space resulting from the politicalization and militarization of humanitarian aid. Politicalization and militarization of aid can take various forms, such as U.S. military personnel delivering aid in civilian clothing, or tying aid to cooperation in military or intelligence missions. Such actions, humanitarian actors argue, make them targets for attacks by insurgents, who view them as part of the coalition military forces. Supporters of this argument point to statements by U.S. officials, such as the reference by Secretary of State Colin Powell to NGOs as force multipliers, as evidence that aid is being instrumentalized. By blurring the lines between humanitarian and military actors, the argument goes, humanitarians are put at risk.

A critical question then, is the extent to which associations between humanitarian actors and militaries compromises humanitarian space. Does cooperation by some humanitarian actors compromise humanitarian space for all humanitarian actors? Some scholars and humanitarian actors argue that this is the case.

Based on these arguments, one would conclude that humanitarian space in Afghanistan has been lost, mostly, if not entirely due to the actions of political and military actors, and a select few aid organizations. As such, the decisions of

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73 Ibid
74 Fournier
75 Macrae and Harmer *Humanitarian Action and the ‘global war on terror’*
individual humanitarian actors to remain independent, neutral, and impartial would be irrelevant with respect to humanitarian space, because insurgent forces treat all humanitarian actors as targets.

The deaths of aid actors due to the politicalization and militarization of aid are certainly regrettable, and there certainly may be incidents in which independent, neutral and impartial actors were targeted. However, I find the argument that all humanitarian space has been lost and that NGO conduct is irrelevant to be insufficiently persuasive. The following analysis of statements by spokesmen of the Taliban, targeted attacks on politicized aid, and statements by both aid actors and patients are presented as evidence that while humanitarian space in Afghanistan may be at risk, NGO conduct is still relevant, and that by holding to humanitarian principles of independence, impartiality, and neutrality, humanitarian actors can increase the humanitarian space available to their organization.

Several statements and actions by Taliban actors demonstrate that the organization is willing to work with, and in some instances ensure safety of, humanitarian actors whom they deem to be independent, impartial and neutral. These statements are cited and presented only as evidence that in certain cases the Taliban has provided access and space to humanitarian organizations. In no way is this analysis intended to support the political motivations of the Taliban or the organization as a whole.

The first of these statements comes from Taliban spokesman Qari Yosuf Ahmadi. In a phone statement to the Integrated Regional Information Networks, a
news and analysis service of the United Nations Office for the Coordination of Humanitarian Affairs, Qari Yosuf Ahmadi stated, “If aid agencies contact our local Mujahedin and reach an agreement we would vouch for the safety of their workers and convoys...Whether it’s a vaccination campaign or food aid distribution they can do their activities in consultation and agreement with us.”

The Taliban have stood by such statements. For example, the Taliban issued a letter signed by Mullah Omar, the organization’s supreme leader, to UNICEF and the World Health Organization (WHO), in support of a polio vaccination campaign. WHO officials state that the letter and the Taliban endorsement have allowed access to previously off limits areas, as well as allowed the continuation of vaccination efforts despite intensified fighting. Afghanistan Ministry of Public Health spokesman Ahmad Farid Raaid reported that there were no security incidents in the initial phases of the vaccination campaign.

Furthermore, while the Taliban have become notorious through their statements of responsibility for attacks, the organization has also issued statements condemning attacks. In August of 2010, ten foreign humanitarian aid workers on a mission with the International Assistance Mission (IAM) were killed in Badakhshan province. While this attack was initially attributed to the Taliban,

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subsequent statements by two high level Taliban officials vehemently denied responsibility, and condemned the attack. Qari Malang, a representative of the Western Nuristan Taliban front stated, “We regret these killings and strongly assert that this is not the work of the Taliban who will never do harm to genuine aid workers…” Qari Malang further states that the Taliban were investigating the killings and sought to apprehend those responsible. Qari Malang’s statement comes in addition to the following brief statement from another Taliban leader, “I offer my condolences for the families of the ten people killed in Badakhshan. The killing of these people was a crime. I know that they were working for the health of poor people in our region.”

While initial claims of responsibility clouded the situation, the above statements make clear the Taliban position on the Badakhshan attacks. International Assistance Mission director Dirk Frans doubts Taliban involvement. Again, the above statements are not meant as an endorsement of Taliban conduct or policy, but are presented as evidence, that through negotiations, and the independent, impartial, and neutral provisions of aid, certain humanitarian aid organizations have been able to enhance their humanitarian space vis-à-vis the Taliban.

In addition to statements by belligerents, the actions of both sides of the conflict also support the arguments that NGO conduct is relevant to humanitarian

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80 Ibid.

space. A number of attacks, raids on hospitals, and kidnappings of humanitarian workers show that belligerents both have knowledge of the relevant humanitarian organizations relationship with parties to the conflict, and are motivated by what they view as improper associations between the humanitarian and military sector.

For example, in 2009 Taliban forces have claimed responsibility for the killing of five staff of United Nations, an organization whom they do not recognize as independent, neutral, and impartial.\textsuperscript{82} However, in 2007 the Taliban unconditionally released 4 kidnapped humanitarian aid workers when it became apparent that they were members of the ICRC, an organization that the Taliban respects as truly humanitarian.\textsuperscript{83} Furthermore, the Swedish Committee for Afghanistan issued a statement condemning two separate coalition raids of their hospital based upon allegations that the hospital sheltered military personnel. While this is a clear violation of humanitarian space, it is also a targeted violation, and shows that both sides of the conflict delineate between organizations they view as humanitarian, and those they view as a threat.

The most obvious evidence counter to this argument is the murder of five members of Medicines Sans Frontiers (MSF) in 2004. However, a statement made by the Taliban after the attack accuses MSF of working in the interests of the U.S. government; revealing the motive for the attack, a perception that MSF had become an inappropriately un-humanitarian\textsuperscript{84}. MSF vehemently rejected

\textsuperscript{82} IRIN \textit{Talking to the Taliban}
\textsuperscript{83} Ibid.
\textsuperscript{84} Nicolas de Torrente, \textit{“Our Distress and Grief are Compounded by Outrage”}: \textit{On the Killing of Five MSF Aid Workers in Afghanistan}. 8 June 2004, Available
accusations of alignment, and their historical conduct supports their claims of independence. Thus, it seems that in this case, a belligerent party failed to correctly identify a truly humanitarian organization. However, MSF has returned to the country, and perhaps the Taliban’s greatest stronghold Helmand Province. The lack of more attacks and the respect demonstrated for the organization’s no gun policy at Boost Hospital, shows that insurgents have come to recognize MSF as a truly humanitarian organization, and have accorded it significant humanitarian space.

Finally, numerous statements from NGO’s and patients in Afghanistan indicate that parties to the conflict recognize the differing extent to which humanitarian organizations hold to humanitarian principles. One of the most explicit of these statements comes from the Afghanistan NGO Safety Office (ANSO), a humanitarian cooperative that publishes security information for NGO’s operating in Afghanistan. “Neutrality and local acceptance, not the military of the counter-insurgency, have become the dominant factors of security for NGOs in vast areas of the country.”85 An anonymous humanitarian aid worker in Kabul explicitly argues that humanitarian principles matter, stating, “What the ICRC and other truly humanitarian organizations reap from their impartiality, neutrality and independence is not available to those who violate these

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principles.” Executive Director of the International Assistance Mission, Dirk R. Frans further supports the argument that differences in adherence to humanitarian principals have meaningful impacts, “The situation for truly humanitarian NGOs has improved recently.” The Afghan Red Cross Red Crescent Society also cites their adherence to humanitarian principles as a reason for their ability to access insecure and remote areas of the country.

CARE International country director Lex Kassenberg notes that his organization has turned down funding which requires work with the military, as cooperating with militaries entities would “demolish” the organization’s acceptance in communities. Lynn Yoshikawa of Oxfam International states, “The militarization of aid in Afghanistan is a reality but not across all donors…” suggesting that even those NGOs which require external funding still have a choice about how politicized that funding is. Representatives of Medicines Sans Frontiers (MSF), CURE International, and the International Committee of the Red Cross have issued similar statements. MSF and CURE International will be explored in brief case studies below.

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87 Ibid
90 Ibid.
Not only NGO personnel support the notion that their conduct affects their access to patients. Patients themselves have reported to aid workers that receiving care in certain clinics makes them a target, “no one goes to the NATO clinic because they will become targets. It’s too dangerous.” Another patient stated, “in our district headquarters hospital there are now military doctors, but we can’t go there. This is a civilian hospital – that’s why we come here. I don’t see any weapons here. That means you don’t have any problems with the opposition or the international forces.” Michael Hofman of Medicines Sans Frontiers summarizes this situation stating, “For sick or wounded Afghans, going to a NATO-run clinic or receiving assistance from groups affiliated with the NATO counterinsurgency (COIN) strategy risks retaliation from the opposition.”

The above argument supports the hypothesis that NGO conduct in Afghanistan is still a relevant determinant of humanitarian space. While there are significant security concerns and the line between humanitarian and military action has been blurred to some degree, there is still space for NGO’s to significantly enhance their humanitarian space by holding to the principals of independence, impartiality, and neutrality.

II. Determinants of Medical Outcomes

The second condition described in the theoretical chapter addresses the determinants of medical outcomes. It is assumed that medical outcomes can either be primarily determined by humanitarian space and access to populations in need,

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92 Ibid.
or by integration into a health system and the ability to address root causes. As discussed above, this binary assumption is based in the differences between Dunantism and Wilsonianism. The following section will argue that whether access or integration is the most effective approach to medical problems is determined by characteristics of the conflict setting and the medical problems experienced, and that Afghanistan is currently experiencing medical needs which most urgently require access. Thus, in Afghanistan, the primary determinant of medical outcomes is humanitarian space and access.

The idea that countries experience differing burdens of disease based on demographic and socioeconomic factors is referred to as the epidemiologic transition. Abdel R. Omran first described this theory in 1971; advancing five propositions to describe the process by which the burden of disease shifts as countries develop. Most relevant to this argument is proposition two: “During the transition, a long term-shift occurs in mortality and disease patterns whereby pandemics of infection are gradually displaced by degenerative and man-made diseases as the chief form of morbidity and mortality and primary causes of death” (emphasis in original). Omran goes on to describe three phases of transition: first, the age of pestilence and famine, in which live expectancy is variable and low, between 20 and 40 years and populations do not grow; second, the age of receding pandemics with life expectancy increasing from about 30 to about 50 and positive population growth; finally the age of degenerative and man-made diseases, life expectancy exceeds 50 years and mortality is stable at a low level.

level.\textsuperscript{94} In the first two phases, “infectious diseases, malnutrition, and maternity complication” are the primary causes of deaths, while cardiovascular disease and cancer are responsible for few deaths.\textsuperscript{95} In the final phase, this burden reverses.

Dr. Moustafa H. Wahdan reconsiders Omran’s theory, arguing that the transition is not a unidirectional process, and that countries can regress. He further posits that the differing nature of disease requires differing responses, “These changes [the epidemiologic transition] require a change in the approach of national authorities to the emerging problems…”\textsuperscript{96} Wahdan also describes various indicators used to track the transition, including: the fertility pattern, the crude death rate, the infant mortality rate, the under five mortality rate, the ratio of deaths due to cardiovascular disease to deaths due to infectious and parasitic disease, and morbidity indicators for infectious and parasitic diseases such as measles, diphtheria, poliomyelitis, tetanus, tuberculosis, and HIV versus chronic diseases such as diabetes, cancer, and cardiovascular disease.\textsuperscript{97}

Paul Speigel extends this analysis to humanitarian crises, arguing that the changing nature of conflicts and medical challenges resulting from conflicts necessitates a change in humanitarian conduct.\textsuperscript{98} He argues that modern conflicts have often been in developed countries, with older populations and urban centers, which leads to scattered, urban, displaced populations experiencing chronic

\textsuperscript{94} Ibid
\textsuperscript{95} Omran 738
\textsuperscript{96} Moustafa H. Wahdan, \textit{The Epidemiologic transition} (Eastern Mediterranean Health Journal 2:1, 1996) 8-20.
\textsuperscript{97} Ibid.
Such a population requires a model of humanitarian action far different from a response to refugee camps and the high prevalence of cholera, malnutrition, and measles. However, Spiegel recognizes the diversity of conflict situations and contrasts appropriate responses. Using a two by three grid to divide countries first by income and life expectancy (high or low) and then by camp, urban, or rural settings, Spiegel establishes demographic and epidemiologic characteristics, as well as the main challenges of each environment. The key medical challenges that Spiegel establishes vary. For example, for rural, low income, low life expectancy settings, medical challenges are to…

"Provide essential health services despite poor accessibility or large geographic areas; expand range of interventions including use of temporary mobile services when relevant; undertake mass campaigns when accessibility allows; reduce financial barriers to access; scale up mental and reproductive services".

While in urban medium to high income and life expectancy settings, medical challenges are to:

"Identify and count populations; integrate into government services while expanding services for new arrivals; reduce financial barriers to access; triage and pay for complicated and expensive secondary and tertiary care cases; achieve equity with host populations."

Clearly, as demographic and socioeconomic factors shift so to do medical problems and the necessary responses to those problems. Furthermore, in Spiegel’s description of necessary medical responses, we see the dichotomy

99 Ibid 343
100 Ibid.
101 Ibid.
102 Ibid.
considered in this thesis, between the need to access populations and the need to 
integrate with governments. The remainder of this section will argue that 
Afghanistan’s demographic and socioeconomic indicators characterize it as a low 
income, low life expectancy country, early in the epidemiologic transition, with 
high morbidity and mortality from infectious and parasitic diseases, birth 
complications, and malnutrition. These medical needs characterize Afghanistan as 
a country where medical improvement most urgently requires access. 
Furthermore, as eighty percent or more of the medical services in Afghanistan are 
provided by humanitarian NGO’s, access requires humanitarian space. 

A GDP per capita in 2008 of $466 and an average life expectancy at birth 
between 2005 and 2010 of 43.8 and 43.9 for women and men respectively, ranks 
Afghanistan among the lowest countries in the world for both indicators. With 
23.6% urban population and 46.1% of the population below age 14, and 57% 
below 18 years of age, Afghanistan is also clearly a very rural country with a very 
young population. These indicators establish that Afghanistan is early in the 
epidemiologic transition, and a country that would be expected to have a high 
incidence of infectious disease, and low chronic disease morbidity and mortality.

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103 Afghanistan Ministry of Public Health The Current Status and Role of Civil 
Society Organizations in Health Sector of Afghanistan (2009). Received from Mr. 
Hedayatullah Naseri of the World Health Organization. 6 
104 Health Status and Demographics. Regional Health Systems Observatory. 
Available at: http://gis.emro.who.int/healthsystemobservatory/main/Forms/ 
105 Ibid.
This prediction is supported by data. Afghanistan’s crude death rate in 2003 was 17.2.\footnote{All data here come from before 2004. There have been improvements and since that time, however, the improvements have been attributed to the Balance Package of Health Services, program that this thesis is studying, as such; indicators from before the program was implemented are shown.} In 2003 an infant mortality rate of 165/1000 live births and an under-five mortality rate of 257/1,000 live births both ranked among the highest in the world.\footnote{Health Status and Demographics. Regional Health Systems Observatory. Available at: http://gis.emro.who.int/healthsystemobservatory/main/Forms/CountryInfo.aspx?Country=AFGHANISTAN. Accessed 28 February 2011.} Afghanistan’s maternal mortality ratio ranks number one in the world at 1600/100,000 live births.\footnote{UNICEF, Afghanistan’s Maternal and Child Mortality rates soar. 4 August 2005, Available at: http://www.unicef.org/media/media_27853.html. Accessed 28 February 2011.} According to WHO Death and DALY (Disability Adjusted Life Year) data, the top causes of death in Afghanistan in 2002 were perinatal conditions (13%), lower respiratory infections (12%), diarrhoeal disease (9%) ischaemic heart disease (7%) and tuberculosis (4%).\footnote{World Health Organization. Mortality Country Fact Sheet 2006. Available at www.who.int/whosis/mort/profiles/mort_emro_afg_afghanistan.pdf. Accessed 28 February 2011.} While ischaemic heart disease is a rather chronic cause of death, the other four top causes of death fit the predictions of the epidemiologic transition theory.

In addition to these health statistics, Afghanistan is obviously currently in the midst of a prolonged military conflict. There have been very high levels of civilian deaths and injuries through conflict. Suicide attacks and improvised explosive devices have caused the many casualties, and have resulted in a very high frequency of traumatic injuries. Such injuries demand safe spaces for the provision of care, and necessitate access more than integration into a health
system. According to Spiegel’s conflict medical situation divisions, these health statistics, and the high frequency of civilian trauma Afghanistan is a setting in which the medical needs most urgently requires to access to those in need, and humanitarian space for those providing aid.

Combining the above arguments, this section concludes with the assertion that Afghanistan is a country in which NGO conduct has a meaningful impact on humanitarian space, and a country in which the level of humanitarian space and access is a more relevant determinant of medical outcomes than integration into a medical system or the ability to address root causes. As such, in combination with the theory established in chapter three, the above qualitative analysis results in the overall hypothesis that in Afghanistan, the degree of humanitarianism of medical non-governmental organizations will be positively correlated with medical outcomes. This hypothesis, and the two assertions regarding determinants of humanitarian space and medical outcomes will be qualitatively tested in chapters five and six. The remainder of this chapter presents two short case studies, which serve as illustrative examples of the relevance of humanitarian principles to medical care in Afghanistan.

III. Case Studies

Cure International

Cure International is an international medical NGO founded in 1998 that runs hospitals in ten countries, including CURE International Hospital of Kabul, and a nearby outpatient clinic. This case study of CURE International is based on a telephone interview with Dr. Rick Manning, the medical director of the
CURE has been running its 110 bed hospital for six years, and in that time Dr. Manning gained a great deal of insight into providing healthcare in Afghanistan.

Two major points are highlighted here. First, Dr. Manning stated that association with the U.S. Military makes NGOs a target. In CURE’s initial years in Afghanistan, there was open association between the military and the hospital, with military vehicles often parked outside of the hospital. However, as the security situation worsened, and the implications of association with the military were considered, the hospital began to become more discretionary about its relationship with the military. CURE still spoke and meet with military personnel, who they viewed as valuable partners, but reduced the visibility of the military around the hospital. Second, Dr. Manning wished to emphasize that in his view NGO’s were more effective than USAID run programming. He stated that NGO’s lived with the local population, learned the language and customs, and as such can rely on their anonymity and acceptance for security. Dr. Manning stated that USAID personnel on the other hand lived within a heavily guarded compound and did not understand the local context. As such, they were less about to provide effective relief services.

*Médecins Sans Frontières (MSF)*

MSF is one of the most outspoken defenders of the humanitarian principles of independence and impartiality. MSF worked in Afghanistan from 1980 until August 2004 when they withdrew after the June 2, 2004 killing of five

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110 Dr. Rick Manning, interview by author, telephone, USA, 17 December 2010.
of their staff members. In the aftermath of the killings, a Taliban spokesperson claiming responsibility for the attacks stated that MSF worked for US interests and was thus a target for more attacks. Given that MSF is traditionally viewed as one of the most humanitarian, independent, and impartial relief organizations, this accusation of working for US interests is surprising, and does not support the assertion that organizational conduct is relevant to humanitarian space. However, given the Taliban’s reasons for the attack, it does support the assertion that attacks on humanitarian organizations are motivated by the perception of politicalization of humanitarian action.

This event is also included in this case study for two further reasons: first to emphasize the life or death importance of the politicalization of humanitarianism, and second to serve as contrast to MSF’s current operations. After withdrawing from the country in 2004, MSF has subsequently returned to Afghanistan and is currently operating Boost hospital in Lashkargah, the capital of Helmand Province. Helmand is one of the most dangerous provinces of Afghanistan, yet by maintaining humanitarian principles, interacting equally with all warring parties, maintaining financial independence from governments, and maintaining a no-guns policy at Boost Hospital, MSF has been able to establish a health care center respected by both sides of the conflict, where families can come for medical care with fear of reprisal attacks.

5. Methodology

This chapter establishes the methodology of the thesis. First, the choice of Afghanistan as a country of analysis is justified. Next, the Balanced Package of Health Services program is introduced. Then sources of data are described. Finally, the use of survey data to construct the independent variable, an index of humanitarianism, is described.

I. Afghanistan

Afghanistan was chosen as a case for analysis for three major reasons. First, it is one of two major contemporary, asymmetric conflicts in which a dominant world power, the United States, seeks to bolster the development and securitization of a country in the face of insurgent conflict. Second, it is a conflict of significant interest to the humanitarian community. Finally, it is a good quantitative test case for determinants of humanitarian effectiveness, as humanitarian NGOs provide 80% of medical services in Afghanistan.\textsuperscript{112} This allows country wide medical data to be used as the outcome variable. This characteristic also differentiates Afghanistan from the other major contemporary conflict of the United States, Iraq, where the state run health system is significantly more developed.

The Balanced Package of Health Services (BPHS) program was established by the Ministry of Health of the Transitional Islamic Government of Afghanistan.\textsuperscript{112} Afghanistan Ministry of Public Health *The Current Status and Role of Civil Society Organizations in Health Sector of Afghanistan* (2009). Received from Mr. Hedayatullah Naseri of the World Health Organization. 6
The purposes of the BPHS program are: “(1) to provide a standardized package of basic services which forms the core of service delivery in all primary health care facilities and (2) to promote a redistribution of health services by providing equitable access, especially in underserved areas.”

The program seeks to provide health services deemed to be so important that “they should be available to all Afghans, even those living in remote and underserved areas.” The program is the result of collaboration between the Afghan Ministry of Health, international agencies, the United Nations, NGOs and donors. Services are focused on seven areas of health care: maternal and newborn health, child health and immunization, public nutrition, communicable diseases, mental health, disability, and the supply of essential drugs. Parallels between these priorities and the medical problems expected in a country early in the epidemiological transition are evident.

NGOs have been the providers of health care in Afghanistan since the mid-1980s. By the fall of the Taliban, NGOs managed over 80% of health facilities. Due to the experience and expertise that NGOs developed over this time, the Ministry of Public Health elected to refrain from direct service delivery

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113 Subsequently the Ministry of Public Health of the Islamic Republic of Afghanistan
115 Ibid. 5
116 Ibid. 6-7
117 Afghanistan Ministry of Pubic Health The Current Status and Role of Civil Society Organizations in Health Sector of Afghanistan (2009). Received from Mr. Hedayatullah Naseri of the World Health Organization. 6
and implement the BPHS program through contracts with NGOs.\textsuperscript{118} Since the implementation of the BPHS, NGOs have been responsible for the program in 31 of the 34 provinces of Afghanistan, while the Ministry of Public Health provides services in 3 provinces.\textsuperscript{119}

\textbf{II. Data}

Six sources of data are used. First, data on medical outcomes and the implementation of the BPHS program come from the Afghanistan Health Sector Balanced Scorecard coauthored by Johns Hopkins University Bloomberg School of Public Health and the Indian Institute of Health Management Research. This scorecard rates quality of medical services in each province for the years 2004-2008 across a sample of more than 600 hospitals using 29 indicators in 6 service domains. Scores are indexed on a scale from 0 to 100 for each indicator.\textsuperscript{120} Averages and the achievement of benchmark goals, indexed from the base year of 2004 are also included in the scorecard. Second, the independent variable, degree of humanitarianism is constructed based on organizations responses to a survey conducted by this author. A copy of this survey is included in Appendix A. The questions and coding of responses will be discussed below.

Control variables come from four sources. First, the United States National Counterterrorism Center World Incidents Tracking System (WITS)
provides data on terrorist incidents.\textsuperscript{121} Data for Afghanistan for the years 2004-2008 was aggregated to establish frequency of attacks per province per year, and number of casualties per province per year. Next, the number of coalition fatalities is used as a control variable for severity of conflict. Numerous international media outlets maintain fatality records, this study aggregated records from CNN.com, assembling a dataset that describes coalition fatalities by number of coalition fatalities per province per year.\textsuperscript{122} A Facility Information Document published by the ministry of public health provides information regarding existing health systems. Finally, the Afghan Ministry of Rural Rehabilitation and Development has published provincial profiles for each of the 34 provinces of Afghanistan. These profiles provide detailed information aggregated from various surveys on the geography, demography, governments, infrastructure, resources, development, education, economy, and health of each province of Afghanistan.\textsuperscript{123}

### III. Constructing the Index

The goal in constructing an index of humanitarianism was to quantify the extent to which medical NGOS in Afghanistan held to the principles of independence, impartiality, and neutrality. With a numerical measure of this variable, quantitative analysis can be performed. In order to construct this variable the survey included in Appendix A was circulated to the various NGO implementers of the BPHS program in Afghanistan. 15 Organizations responded


to the survey, however, only 11 of these organizations were involved in the BPHS program between 2004 and 2008. As medical outcomes are only available on a province-by-province basis, responses were used to both map NGO activity by province, and create the index of humanitarianism. With a humanitarianism score for each NGO and information about NGOs active in each province, a humanitarianism score for each province was then calculated. This process is described below.

**Mapping**

Question one of the survey asks organizations to describe medical operations in Afghanistan and specifically BPHS programming between 2004 and 2008. Provinces and districts of activity were requested, however, in some cases, only provinces of activity were provided.\(^\text{124}\) This information was used to create a map of NGO implementers of the BPHS program. While a cooperative mapping of Civil Society Organizations involved in medical care was recently assembled by the Ministry of Public Health, the World Health Organization and the Global Alliance for Vaccine and Immunization, this document is both incomplete, and maps organizations active in 2009.\(^\text{125}\) As 2009 is not in the time period analyzed, this document could not be used. Other accounts of NGOs responsible for BPHS programming are scattered in various donor, government, and NGO documents.

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\(^{124}\) In very early versions of the survey, organizations were asked to describe medical activities from 2001-2009. When it became apparent that outcome variables would limit this study to the years of 2004-2008, only information regarding those years was requested.

\(^{125}\) Afghanistan Ministry of Public Health *The Current Status and Role of Civil Society Organizations in Health Sector of Afghanistan* (2009). Received from Mr. Hedayatullah Naseri of the World Health Organization. 6
and reports. In order to establish a single source for the mapping of BPHS provision, this study will use exclusively responses to the survey to create a map of provinces of activity.

This map will is used in conjunction with the humanitarianism index in order to develop numerical ratings of the degree of humanitarianism in each province. In some cases, BPHS program was provided cooperatively, with more than one NGO active in a single province, in these cases, scores are weighted by relative number of districts of responsibility. Furthermore, in certain periods of transition, responsibility for BPHS programming was transferred between NGOs mid year. In these cases, the score for that province for that year is weighted as the sum of 0.5 times the score for each organization.

Survey data was pursued for humanitarian organizations across all thirty-four provinces over the five years of the study. However, complete coverage was not achieved for several reasons. First, in three provinces, the BPHS program is under the supervision of the Ministry of Public Health (MoPH), as such, there was no NGO actor to survey in these provinces. Second, in four provinces, Helmand, Kandahar, Uruzgan, and Zabul, conflict prevented the gathering of data for the Balanced Health Sector Scorecard. While attempts were made to survey these provinces despite the lack of outcome variables, these attempts largely failed. Finally, some organizations refused to complete the survey, or did not respond to inquiries.

With five years and 34 total provinces, there was a maximum possible sample size of 170 province/years. 10 of these province/years are eliminated, as
they are MoPH provinces. While there are 3 provinces under MoPH control, only 2 provinces are omitted because unclear accounts of responsibility have been found regarding Parwan, Ghor, and Kabul provinces. It is clear, however, that the MoPH is responsible for Panjsher and Kapisa Provinces; as such these provinces are not surveyed. 20 province/years are eliminated due to the conflict in Helmand, Kandahar, Uruzgan, and Zabul. One year is also eliminated because in 2008 Farah Province was too insecure to allow medical surveys. Finally, one province/year is eliminated because Daikundi province did not exist in 2004. This leaves 138 province/years. Surveys have been collected allowing analysis of 87 of these 138 province years. This lack of complete data, and its impacts on the strength of the results of the study, will be considered in the discussion section. Incomplete coverage is further limiting in that in several provinces with shared responsibility for BPHS programming, not all organizations responded. In these cases, the humanitarianism score for the province is calculated based on available responses, as these responses are the most appropriate available information.

NGO provision of BPHS programming by province is presented as a chart in Appendix B.

127 Medical data is available for these four provinces for 2004, however it is not available for 2005-2008. Furthermore, the data available for 2004 is from a unique data set, is inconsistent, and thus not comparable all other medical data used in this study. As such, these four provinces are not included in analysis.
Holding to Humanitarian Principles

Having established where organizations were active, the survey turns to questions regarding budgets, sources of revenue, and organizational policy. These questions are meant to probe several areas identified by scholars as ways in which organizations can violate humanitarian principles. First, information was requested regarding funding; including percentage of organizational revenue from government donors, the sources of government funding, and NGO perception of restrictions placed on funding. Second, staff composition was requested, in order to determine the percentage of staff who are and are not natives of Afghanistan. This information was deemed relevant in that foreign staff members are possibly more likely to be viewed as politically affiliated. Third, the balance of organizational programming between medical and non-medical activities was examined based on arguments that by pursuing non-medical activities organizations are perceived as supporting the general political development of the country, and as such are not seen as truly humanitarian.128 Next, likert scale questions address organizational cooperation and dialogue with various political actors, and treatment of armed personnel.

The final question of the survey asks if organizational policy regarding questions of the survey have changed significantly over time. This question was included because it is possible that organizations have modified their conduct significantly over the course of the conflict in Afghanistan. If this were the case, then the degree of humanitarianism reflected in their actions would change. In

128 Anderson
five of eleven coded responses, no significant changes were indicated. Three responses indicated that as levels of violence and security changed, travel restrictions and access were affected. One of these three responses indicated the organization sought increase local connections in response to security concerns. One response referred to changes resulting from the establishment of an international recognized government in 2001, and two responses indicated changes but did not describe them. An ideal index would reflect changes in organizational conduct over time, however, due to the difficulty of conducting one general survey, it was decided that a survey that differentiated between organizational policies from year to year was not likely to be sufficiently precise to improve results. As such, it is assumed that within each organization the level of humanitarianism remained constant over the five years under study. The limitations of this assumption are addressed in the discussion section.

Coding of responses varied based on question type. Coded data is included in Appendix C. This data was used to create components of the humanitarianism index. These components are included in Table 6 and construction of these components is described below. NGOs included are: Bakhtar Development Network (BDN), Bangladesh Rural Advancement Committee (BRAC), International Medical Corps (IMC), MEDAIR Emergency Relief and Rehabilitation International (MEDAIR), Medical Emergency Relief International (MERLIN), MOVE Welfare Organization (MOVE), Norwegian Afghanistan Committee (NAC), Solidarity for Afghan Families (SAF), Swedish Committee
for Afghanistan (SCA), Social Health and Development Program (SHDP) and Save the Children (SC).

Table 6: Components of the Index

<table>
<thead>
<tr>
<th>NGO</th>
<th>% Gov.</th>
<th>Source</th>
<th>Change</th>
<th>Staff</th>
<th>Non-Med.</th>
<th>Cooperation</th>
<th>Dialogue</th>
<th>Combat</th>
</tr>
</thead>
<tbody>
<tr>
<td>BDN</td>
<td>0.996</td>
<td>1.00</td>
<td>0.00</td>
<td>0.0000</td>
<td>0.00</td>
<td>0.45</td>
<td>0.43</td>
<td>1.00</td>
</tr>
<tr>
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<td>1.00</td>
<td>0.00</td>
<td>0.0446</td>
<td>0.74</td>
<td>0.50</td>
<td>0.53</td>
<td>0.00</td>
</tr>
<tr>
<td>IMC</td>
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<td>1.00</td>
<td>0.25</td>
<td>0.0153</td>
<td>0.02</td>
<td>0.43</td>
<td>0.43</td>
<td>0.50</td>
</tr>
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<td>0.43</td>
<td>0.40</td>
<td>0.50</td>
</tr>
<tr>
<td>MERLIN</td>
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<td>*</td>
<td>0.25</td>
<td>0.0043</td>
<td>0.00</td>
<td>0.16</td>
<td>0.31</td>
<td>0.50</td>
</tr>
<tr>
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<td>1.00</td>
<td>0.50</td>
<td>0.0000</td>
<td>0.00</td>
<td>0.35</td>
<td>0.25</td>
<td>0.00</td>
</tr>
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<td>1.00</td>
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<td>0.0100</td>
<td>0.65</td>
<td>0.42</td>
<td>0.28</td>
<td>1.00</td>
</tr>
<tr>
<td>SAF</td>
<td>1.00</td>
<td>1.00</td>
<td>0.25</td>
<td>0.0000</td>
<td>0.10</td>
<td>0.40</td>
<td>0.33</td>
<td>0.50</td>
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<td>0.0020</td>
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<td>0.33</td>
<td>0.31</td>
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<td>0.75</td>
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<td>0.12</td>
<td>0.46</td>
<td>0.50</td>
<td>1.00</td>
</tr>
<tr>
<td>SC</td>
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<td>1.00</td>
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<td>0.0234</td>
<td>0.70</td>
<td>0.47</td>
<td>0.42</td>
<td>0.00</td>
</tr>
</tbody>
</table>

* MERLIN asked that information regarding funding not be disseminated

Several questions asked for responses in a percentage format. These questions established the percentage of funding from government donors, the percentage of non-native staff, and the percentage of budget allocated to non-medical services (% Gov., Staff, Non-Med.) These responses are recorded as decimal from 0 to 1. Percentage of non-native staff and percentage of non-medical activities are input directly into the index. Funding however, is weighted based on both percentage of funding from governments and characteristics of those governments.

Characteristics of donor funding were examined using the DARA (formerly the Development Assistance Research Associates) Humanitarian Response Index (HRI), an index that assesses various characteristics of donor funding of humanitarian assistance. In this index governments receive scores from 0-10 on various elements of humanitarian assistance, with higher scores reflecting
more humanitarian donor practices. This study specifically uses the variable “Working with Humanitarian Partners.” First, this index was inverted, such that higher scores reflect less humanitarian action. Then scores were normalized so that United States government funding was rated 1. Other government funding was then indexed relative to the United States. This information was used to establish the “Source” component of the index, rating the level of humanitarianism of funding that NGOs received. If organizations received any funding from the US government, they received a “Source” score of 1. Other organizations were given scores based on the donor providing the most funding. This weighting was used in two cases, MERLIN’s “Source” score is based on the European Commission HRI rating, and The Swedish Committee for Afghanistan score is based on Sweden’s HRI rating. Percentage of government funding was multiplied by the source score to create values from 0 to 1 presented in the “Funding” column of Table 7, for the extent to which organizations are dependent on politicized funding.

All likert scale responses were coded on a scale from 0 – 4. For questions regarding changes resulting from restrictions, and treatment of combatants, the

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130 Ibid.
131 It would be more precise to break organizational funding down by donor and weight that percentage of funding by the HRI index. This would differentiate between organizations that received all funding from USAID from organizations that received, for example, 70% of funding from USAID and 30% from other government donors. However, sufficiently detailed financial information was not available. Again, the limitations this causes will be addressed in the discussion section.
response was coded, and then divided by 4 to create a score from 0 to 1. These responses are presented in columns “Change” and “Combat.”

Responses regarding dialogue and cooperation were also coded from 0 to 4 (Never, Rarely, Sometimes, Often, Very Often) but were aggregated differently. These two questions ask organizations to rate their dialogue and cooperation with five political actors in Afghanistan: The Government of the Islamic Republic of Afghanistan, the International Security Assistance Forces, the United States Armed Forces, the United Nations Mission in Afghanistan and other forces involved in the conflict, including insurgent forces. Responses were analyzed both for magnitude and variance of response. Magnitude was calculated by summing the score for each response and dividing by the maximum possible sum of scores. For example, an organization that responded “rarely” for dialogue with all five actors would receive five scores of 1, resulting in a sum of 5, which divided by a maximum possible sum of 20 yields 0.25. This magnitude component reflects the differing lack of neutrality and impartiality that results from differing levels of dialogue or cooperation. However, lack of neutrality and impartiality can be seen not only simply cooperating or engaging in dialogue with political actors, but also in engaging in cooperation or dialogue unequally with different political actors. Therefore, variance was also calculated and divided by maximum possible variance. The magnitude and variance components were each weighted by a factor of 0.5, and then summed to create overall scores for cooperation and dialogue from 0 to 1. These scores are presented in columns “Cooperation” and Dialogue.”
This coding procedure yields seven components of the index, each taking values from 0 to 1. Two of these components, funding, and changes, seek to measure the control-based politicalization of humanitarianism mentioned in the literature review. Three components, Non Medical, Staff, and Combat, seek to measure perception-based politicalization. The final two components, Cooperation and Dialogue, are hybrid control-perception components, as control can be exercised through cooperative missions and dialogue, and the extent to which humanitarian actors interact and speak with political actors can affect perceptions of that organization.

Some components are deemed to be more relevant than others. As such, components are weighted, and finally summed to create a politicalization score for each organization from 0 to 10. Three components, funding, staff, and cooperation, are weighted by a factor of 2. These variables are believed to be especially relevant determinants of organizational independence, impartiality, and neutrality. Cooperation and staff are weighted because they are the two components most easily identified by observations of conduct in the field. As it is believed that acceptance into local communities is a key determinant of humanitarian space and outcome of degree of humanitarianism, in the field conduct is deemed especially important. Based on opinions of actors in the field regarding the importance of funding sources in relation to community acceptance, funding is also weighted.¹³²

¹³² *Afghanistan: USAID rejects NGO concerns over aid militarization.* Integrated Regional Information Networks. 2 December 2009. Available at:
The indicators analyzed all represent politicization of humanitarian action. Therefore, when all indicators are totaled, higher totals reflect more politicized, and less humanitarian organizations. For simplicity in the quantitative section, as well as personal preference, the final index should represent more humanitarian action with higher scores. Thus, each score of politicalization will be subtracted from 10 to yield a final humanitarianism score, with higher scores reflecting more humanitarian action. The weighting factors (under the lettered columns) and final humanitarianism index are presented in Table 7. Appendix D presents scores by province and year. Regressions presented in Chapter six will use this index, and the data introduced above, to test the conditions and hypotheses discussed in the previous chapters.

### Table 7

<table>
<thead>
<tr>
<th>NGO</th>
<th>A</th>
<th>Funding</th>
<th>Change</th>
<th>B</th>
<th>Staff</th>
<th>Non-Med.</th>
<th>C</th>
<th>Cooperation</th>
<th>Dialogue</th>
<th>Combat</th>
<th>Politicalization</th>
<th>Degree of Humanitarianism</th>
</tr>
</thead>
<tbody>
<tr>
<td>BDN</td>
<td>2</td>
<td>0.996</td>
<td>0.00</td>
<td>2</td>
<td>0.0000</td>
<td>0.00</td>
<td>2</td>
<td>0.45</td>
<td>0.43</td>
<td>1.00</td>
<td>4.572</td>
<td>5.428</td>
</tr>
<tr>
<td>BRAC</td>
<td>2</td>
<td>1.00</td>
<td>0.00</td>
<td>2</td>
<td>0.0446</td>
<td>0.74</td>
<td>2</td>
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<td>0.53</td>
<td>0.00</td>
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<tr>
<td>IMC</td>
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<td>0.25</td>
<td>2</td>
<td>0.0153</td>
<td>0.02</td>
<td>2</td>
<td>0.43</td>
<td>0.43</td>
<td>0.50</td>
<td>4.0906</td>
<td>5.9094</td>
</tr>
<tr>
<td>MEDAIR</td>
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<td>0.0529</td>
<td>0.50</td>
<td>2</td>
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<td>0.40</td>
<td>0.50</td>
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<td>5.4342</td>
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<tr>
<td>MERLIN</td>
<td>2</td>
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<td>0.31</td>
<td>0.50</td>
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<td>6.7314</td>
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<td>2</td>
<td>0.0000</td>
<td>0.00</td>
<td>2</td>
<td>0.35</td>
<td>0.25</td>
<td>0.00</td>
<td>3.45</td>
<td>6.55</td>
</tr>
<tr>
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<td>0.65</td>
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<td>0.0000</td>
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<td>0.12</td>
<td>2</td>
<td>0.46</td>
<td>0.50</td>
<td>1.00</td>
<td>5.29</td>
<td>4.71</td>
</tr>
</tbody>
</table>

* MERLIN requested that information regarding funding not be disseminated
6. Results

This chapter presents quantitative tests of the three hypothesized correlations of the thesis. First, that increasing humanitarian conduct will be associated with greater humanitarian space. Second, that increasing humanitarian space will be associated with increased medical outcomes. Third, that in Afghanistan from 2004 to 2008, the degree of humanitarianism of NGOs implementing the Balanced Package of Health Services will be positively associated with the medical outcomes of the program. The final relationship, as well as the association between humanitarianism and humanitarian space will be tested both for the weighted humanitarianism index and the individual components of that index. First, variables will be discussed, then results will be presented. While brief discussion follows each table, a more comprehensive discussion integrating the qualitative and quantitative results is presented in chapter 7.

I. Variables

Summary Statistics for all variables are provided in Appendix E. As discussed in the previous chapter, the variable Humanitarianism is an index with a minimum possible value of 0 and a maximum possible value of 10, and serves the main independent variable. Increasing values correspond with increasing humanitarian conduct. The component variables measure politicalization of funding (Funding), NGO perception of changes made in response to restricted funding (Changes), percent of non-native staff (Staff), percent of budget allocated to non-medical activities (Non Medical), cooperation with political actors
(Cooperation), dialogue with political actors (Dialogue) and treatment of combatants (Combat). These variables are drawn directly from organizations’ responses to survey questions and are structured such that increasing values reflect increasing politicalization of humanitarian action, and thus decreasing humanitarian conduct. Therefore, in regressions of humanitarianism on medical outcomes, for the weighted index positive coefficients are expected, but for the individual components, negative correlations are expected.

Several control variables are used in multiple ways. The frequency of terrorist incidents (Frequency) is used first as a proxy for humanitarian space and second as a control in regressions modeling medical outcomes. As frequency of terrorist incidents increases, security, and thus humanitarian space decreases. As such, the variable is used as the outcome in regressions testing the question asked in Condition I, is humanitarianism a relevant determinant of humanitarian space? Frequency of terrorist incidents is also used, along with coalition fatalities (Battle Fatalities), to control for violence in regressions modeling medical outcomes. Both frequency of terrorist incidents and number of coalition fatalities are normalized by taking the natural logarithm.

The percentage of a province with no roads (No Roads) and the population density of each province (Population Density) are used as controls to account for varying degrees of development, ease of access, and population concentration. Both are normalized by taking the natural logarithm.

Finally, three variables: Health Facilities Per Capita, percentage of households with access to safe drinking water (Water), and percentage of
households using bush, open field, or no toilet facilities (No Toilet) are used in
tests of condition II to proxy the extent to which root causes of disease are
addressed, and as controls in final tests of the impact of humanitarianism on
medical outcomes. Health Facilities Per Capita is normalized by taking the natural
logarithm of the number of facilities over the natural logarithm of the population.
Water and toilet facility data are normal as is.

Frequency of terrorist incidents and coalition fatality data is available on a
year-to-year basis, however, other control data is not. It is assumed that these
control variables remain relatively stable from year to year, and the most recent
available statistics for each variable are used for all years considered. While this
assumption likely affects the accuracy of results, no data measuring these
demographic and infrastructure variables on a year-by-year basis was found.
Limitations of this assumption are discussed in chapter 7.

Medical outcome variables are drawn from the Johns Hopkins University
– Indian Institute of Health Management Afghanistan Health Sector Balanced
Scorecard, which rates hospitals on 29 indicators across 6 domains of hospital
conduct. Of these 29 indicators, 12 were selected as especially relevant to the
healthcare provision this study seeks to measure. Selected indicators include all
indicators from the “Patients & Community” and “Service Provision” domains, as
well as indicators for health worker satisfaction and laboratory functionality.
These indicators were chosen to prioritize measurements of quality of care rather

133 Afghanistan Health Sector Balanced Scorecard 2008. Johns Hopkins
University Bloomberg School of Public Health and Indian Institute of Health
Management Research.
than compliance with government issued procedures for hospital management. Modified indicators are presented in Appendix F. Regressions are run on the overall score, change in score from previous year and percent change in score from previous year. Change and percent change in modified indicators are used as more precise measurements of the year-to-year impact of determinants of medical outcomes. For example, in a given year a province with an average score of 80 rates better than a province with an average score of 50 by overall score. However if the score in the first province dropped from 85 to 80, while the score in the second province rose from 30 to 50, the improving health outcomes in the second province arguably demonstrate better medical conduct in that year. Likewise, the percentage change in indicators provides more detail than simply the magnitude of change.

II. Results

Table 8 presents six regressions of Humanitarianism on the frequency of terrorist incidents with various controls. These regressions serve as a quantitative test of the first condition required for the Dunantist argument to hold; that Humanitarianism must be a relevant determinant of Humanitarian Space. The bivariate regression yields a positive coefficient of humanitarianism, indicating an increase in terrorist incidents as humanitarianism increases. While this bivariate correlation does not support the Dunantist argument, as relevant controls are introduced, negative, and increasingly significant coefficients emerge. However, significance never reaches reportable levels.
<table>
<thead>
<tr>
<th>Variable of Interest</th>
<th>Regression</th>
<th>I</th>
<th>II</th>
<th>III</th>
<th>IV</th>
<th>V</th>
<th>VI</th>
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<td></td>
<td></td>
<td>(.135)***</td>
<td>(.146)***</td>
<td>(.149)***</td>
<td>(.148)***</td>
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<td>(.152)***</td>
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<td>(.168)*</td>
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<td>.305</td>
<td>.314</td>
<td>.360</td>
</tr>
<tr>
<td>N</td>
<td></td>
<td>87</td>
<td>87</td>
<td>87</td>
<td>87</td>
<td>87</td>
<td>87</td>
</tr>
</tbody>
</table>

Unstandardized coefficients; std. error reported below, labeled for significance *$p \leq .10$, **$p \leq .05$, ***$p \leq .01$

There are no significant coefficients on humanitarianism; however, except for the bivariate regression the above regressions show expected signs and increasing significance. With additional - presently unavailable - data, it is possible that significance would continue to increase to a reportable P value. Possible controls include distributions of provincial reconstruction teams by province over time, coalition troop levels, and a historical measure of support for insurgent actors. With available data, these regressions fail to find significant evidence at reportable levels for a definitive conclusion regarding the state of Condition I: Is humanitarian action a relevant determinant of humanitarian space? However, based on the sign of the coefficients and the increasing significance levels, I argue that the data tentatively supports the link between increasing

---

134 While limited data on these variables was found in The United States Naval Postgraduate School Program for Culture & Conflict Studies provincial profiles, sufficiently comprehensive province level data was not found.
humanitarian conduct and increasing humanitarian space. As the dependent variable, frequency of terrorist incidents, is expressed as a natural logarithm, with a coefficient of -0.263 in regression VI, an increase of 1 unit on the index of humanitarianism corresponds with a decrease of 26.3% in frequency of terrorist attacks.

However, as the coefficient is insignificant, it is not possible to state this association with a statistically relevant degree of confidence. Therefore, the relationship will be analyzed further by considering each component of the humanitarianism index individually. Table 9 presents this analysis. Regression VI of Table 8 is reproduced in column I of Table 9 for comparison. Regression II includes each individual component regressed on frequency of terrorist incidents without controls. Regression III includes controls on violence, and regression IV includes controls on violence, demography, and infrastructure development.

As stated above, component variables are drawn from the survey, and increasing values demonstrates increasing politicization of action, therefore, positive coefficients are expected. In all three regressions variables Funding, Staff, and Combat have the expected positive correlation. As controls are introduced variable Changes also yields the expected positive coefficient. In regression IV, however, with complete controls, variables Non-Medical, Cooperation, and Dialogue yield negative coefficients. Furthermore, only one component coefficient reaches reportable significance, variable Staff in regression III.
Table 9: Effect of Components of Humanitarianism on Humanitarian Space (Frequency of terrorist incidents)

<table>
<thead>
<tr>
<th>Regression</th>
<th>I</th>
<th>II</th>
<th>III</th>
<th>IV</th>
</tr>
</thead>
<tbody>
<tr>
<td>Variables of Interest</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Humanitarianism</td>
<td>-.263</td>
<td>(.340)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Funding</td>
<td>2.740</td>
<td>1.763</td>
<td>1.195</td>
<td></td>
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<tr>
<td></td>
<td>(4.606)</td>
<td>(3.909)</td>
<td>(3.773)</td>
<td></td>
</tr>
<tr>
<td>Changes</td>
<td>-1.061</td>
<td>.650</td>
<td>.173</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(1.432)</td>
<td>(1.253)</td>
<td>(1.263)</td>
<td></td>
</tr>
<tr>
<td>Staff</td>
<td>27.448</td>
<td>40.822</td>
<td>35.049</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(28.202)</td>
<td>(24.212)*</td>
<td>(23.373)</td>
<td></td>
</tr>
<tr>
<td>Non-Medical</td>
<td>.171</td>
<td>.090</td>
<td>-.201</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(1.381)</td>
<td>(1.172)</td>
<td>(1.128)</td>
<td></td>
</tr>
<tr>
<td>Cooperation</td>
<td>-1.423</td>
<td>-.633</td>
<td>-2.460</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(6.236)</td>
<td>(5.293)</td>
<td>(5.117)</td>
<td></td>
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<tr>
<td></td>
<td>(5.299)</td>
<td>(4.568)</td>
<td>(4.662)</td>
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<tr>
<td>Combat</td>
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<td>.893</td>
<td>1.222</td>
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</tr>
<tr>
<td></td>
<td>(.924)</td>
<td>(.783)</td>
<td>(.795)</td>
<td></td>
</tr>
<tr>
<td>Controls</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Battle Fatalities</td>
<td>.515</td>
<td>.544</td>
<td>.470</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(.148)**</td>
<td>(.150)**</td>
<td>(.151)**</td>
<td></td>
</tr>
<tr>
<td>No Roads</td>
<td>-.431</td>
<td>-.415</td>
<td>-.254</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(.190)**</td>
<td>(.173)**</td>
<td>(.247)</td>
<td></td>
</tr>
<tr>
<td>Population Density</td>
<td>-.293</td>
<td></td>
<td>-2.57</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(.168)*</td>
<td></td>
<td>(.178)</td>
<td></td>
</tr>
<tr>
<td>Water</td>
<td>2.77</td>
<td></td>
<td>4.257</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(1.147)**</td>
<td></td>
<td>(1.525)**</td>
<td></td>
</tr>
</tbody>
</table>

Summary Statistics

| SER (Root MSE) | .177 | 1.455 | 1.233 | 1.182 |
| R²            | .360 | .0467 | .254  | .314  |
| N             | 87   | 87    | 87    | 87    |

Unstandardized coefficients; std. error reported below, labeled for significance *p ≤ .10, **p ≤ .05, ***p ≤ .01

In this regression, with the independent variable measured by the natural log, a coefficient of 40.822 suggests an increase in terrorist incidents of 4,082.2% for each unit increase in the Staff variable. This effects seems unexpectedly large, however, it is important to consider that the staff variable is measured as a
percentage, so an increase of 1 unit represents an increase in the percentage of non-native staff of 100%. A more appropriate analysis would be that for each 1% increase in non-native staff, terrorist incidents increase by 40.822%. This regression thus supports a statistically significant association between increasing perceived politicalization of staff, measured by the percent of non-native staff, and decreasing humanitarian space, measured by the frequency of terrorist incidents. In regression IV, variables staff and combat nearly reach significance at the 10% level with p-values of 0.138 and 0.129 respectively. While, not significant at traditionally reported levels, this suggests that with respect to effects on humanitarian space, the two most salient characteristics of humanitarian action are staff composition and organizational policy regarding the treatment of combatants. Furthermore, the positive coefficient suggests that as Staff and Combat increase (become more politicized, and less humanitarian) frequency of terrorist incidents increases. In the language of condition I, as staff composition and policy regarding the treatment of combatants becomes increasingly humanitarian, humanitarian space increases. Finally, the negative coefficients of Non-Medical, Cooperation, and Dialogue, while not significant, are unexpected. These coefficients will be further analyzed in an overall discussion of coefficients from all regression in chapter 7.

The four control variables included are Coalition Fatalities (Battle), Percentage of Province with No Roads (No Roads), Population Density, and the percentage of households with access to safe water (Water). Each of these
variables potentially affects both the independence of humanitarian actors, and the frequency of terrorist incidents.

In as much as it serves as a proxy for the level of battle and violence, increasing coalition fatalities would make humanitarian conduct more difficult. Increased levels of violence decrease security and increase the likelihood that humanitarian actors must turn to political and military actors for security, thereby decreasing their independence. Increasing intensity of battle also likely affects terrorist incidents, as attacks may target military personnel. In provinces with fewer roads, humanitarian conduct is more difficult. With fewer roads, accessing populations in need is more difficult. In such a situation, humanitarian actors may be required to rely on political and military actors for transportation to remote areas. Roads also affect the incidence of terrorism, as attacks are likely to be targeted along roads in an effort to disrupt military convoys or create instability along key transportation routes. Therefore, a positive coefficient of Battle Fatalities and a negative coefficient of No Roads are expected in regressions on frequency of terrorism.

Population density potentially affects humanitarianism and terrorist incidents in a similar manner. Terrorist incidents are likely to be concentrated where they will have maximum psychological impact: in areas with higher population densities. However the negative coefficient suggests the opposite effect. Population density could affect the independence of humanitarian action in two ways. First, access issues may arise again, and similar to the effect of lacking roads, humanitarian actors may become dependent on political forces to access
scattered populations. However, political actors may be less active in areas with low population concentrations, making independence easier.

Access to water is included as a measure of infrastructure. Where there is existing infrastructure humanitarian organizations do not need to work with political actors to develop that infrastructure, and therefore could potentially be more able to maintain independence. Terrorist incidents may also be more concentrated in areas with developed infrastructure in an effort to cause instability by destroying that infrastructure.

The coefficients of these controls largely reflect anticipated effects. As one would expect, increasing coalition fatalities are correlated with increased terrorist incidents. Based on the No Roads variable, terrorist incidents decrease as an area becomes more rural and less developed. Furthermore, coefficients of the water variable suggest that there are more terrorist incidents in areas with better-developed infrastructure. This complements the conclusions that can be drawn from the No Roads variable, that terrorist incidents are more concentrated in developed areas. The negative coefficient of population density is somewhat puzzling, and suggests that terrorist attacks decline as population density increases. This could potentially be explained by considering that insurgents may act as guerilla military forces rather than traditional terrorist organizations. This may cause targeting of military actors rather than civilian urban centers.

Table 10 presents regressions testing condition II: Is humanitarian space and access or integration and the ability to address root causes a more relevant determinant of medical outcomes? Three outcome variables, Modified Medical
Indicators, Change in Modified Medical Indicators, and Percent Change in Modified Medical Indicators are used. For each medical outcome variable, regressions of frequency of terrorist incidents and three variables measuring root causes are included, first without controls, and then with controls.

Table 10: Condition II - Modeling Determinants of Medical Outcomes

<table>
<thead>
<tr>
<th>Regression</th>
<th></th>
<th></th>
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<tbody>
<tr>
<td>Medical Outcome</td>
<td>Variables of Interest:</td>
<td>Modified Indicators</td>
<td>Change in Modified Indicators</td>
<td>Percent Change in Modified Indicators</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Frequency</td>
<td>Water</td>
<td>No Toilet</td>
<td>Health Facilities Per Capita</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.825</td>
<td>-13.227</td>
<td>-3.172</td>
<td>39.375</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>(.746)**</td>
<td>(8.646)</td>
<td>(7.712)</td>
<td>(28.804)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.783</td>
<td>-5.407</td>
<td>-6.402</td>
<td>35.232</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(.831)***</td>
<td>(9.200)</td>
<td>(7.701)</td>
<td>(28.470)</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>-553</td>
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<td></td>
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<td>(.694)</td>
<td>(7.607)</td>
<td>(6.728)</td>
<td>(25.000)</td>
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<td></td>
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<td>1.383</td>
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</tr>
<tr>
<td>(.815)</td>
<td>(8.378)</td>
<td>(7.036)</td>
<td>(25.673)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>-.005</td>
<td>-.005</td>
<td>.100</td>
<td>.402</td>
<td></td>
<td></td>
<td></td>
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<td>(.015)</td>
<td>(.162)</td>
<td>(.144)</td>
<td>(.534)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>-.010</td>
<td>.029</td>
<td>.131</td>
<td>-.372</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(.017)</td>
<td>(.179)</td>
<td>(.150)</td>
<td>(.548)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Controls

| Battle Fatalities | No Roads | Population Density |
| -966 | 4.020 | 1.012 |
| (.1214) | (1.254,*** | (1.139) |
| .778 | .126 | .333 |
| (1.072) | (1.143) | (1.044) |
| .019 | .003 | -.011 |
| (.023) | (.024) | (.022) |

Summary Statistics

| SER(Root MSE) | $R^2$ | N |
| 11.793 | .061 | 144 |
| 11.468 | .131 | 144 |
| 9.141 | .021 | 115 |
| 9.243 | .021 | 115 |
| .195 | .020 | 115 |
| 197 | .027 | 115 |

Unstandardized coefficients; std. error reported below, labeled for significance *$p \leq .10,$ **$p \leq .05,$ ***$p \leq .01$

Variables Water, No Toilet, and Health Facilities Per Capita measure how well root causes of disease are addressed, allowing comparisons between the effect of humanitarian space and the effect of root causes. Variable Water still measures the percentage of households with access to safe water. With many diseases transmitted through infected water, safe access to water is a key determinant of medical outcomes. No Toilet measures the percentage of
households that use bush, open field, or no toilet facilities. As many infectious
diseases are transmitted through the fecal-oral transmission pathway, exacerbated
by poor sanitation facilities, proper toilet facilities are a very important element of
health infrastructure. Increasing per capita health facilities should increase access
to health care and improve health outcomes. Finally, increasing terrorist incidents
could both disrupt medical and humanitarian efforts, and directly compromise
medical outcomes through trauma. Therefore, positive coefficients are expected
of Health Facilities Per Capita and Water, while negative coefficients are
expected of No Toilet and Frequency. Control variables Battle Fatalities, No
Roads, and Population density are again used to control for levels of violence,
access, infrastructure, and demographics.

The results of these regressions with respect to condition II are not entirely
clear. For the first set of medical indicators there are significant positive
coefficients of terrorist incidents on medical outcomes, which suggests that as
terrorist incidents increase, so to do medical outcomes. This result is very
counterintuitive, and suggests an omitted variable, perhaps concentration of
provincial reconstruction teams or historical support for insurgents. Furthermore,
in regressions on change and percent change in medical outcomes, the coefficient
becomes negative.

Considering the measures of root causes, for the first set of medical
outcomes, health facilities per capita and no toilet have the expect sign, while
water does not, though no coefficients are significant. Yet for the second two
medical variables, we see coefficients of No toilet and Per Capita Health Facilities
with unexpected signs. In regression V, water has an unexpected negative coefficient as well. The fact that signs are unexpected does not invalidate these regressions, but the fact that for every variable of interest, the sign of the coefficient changes from one medical outcome variable to the next makes it difficult to draw strong conclusions regarding the state of condition II. Additionally, in regressions III-VI coefficients are small and none are significant. Therefore, it is not possible to conclude that humanitarian space is a significant determinant of medical outcomes. However, these regressions also do not support the assertion that addressing root causes has a positive impact on medical outcomes.

The above tests of conditions leads to the following: (1) the tentative assertion that for condition I humanitarianism is a relevant determinant of humanitarian space, (2) a stronger argument for an association between the specific component variable Staff and potentially the variable Combat and humanitarian space, and finally (3) inconclusive results regarding condition II and the determinants of medical outcomes. The remainder of the chapter turns to the overall question: is increasing humanitarian conduct associated with increased medical outcomes?

With inconclusive results from tests of condition II, quantitative analysis does not support any specific hypothesis. As such, analysis will continue based on the hypothesis developed in the qualitative section, that increasing humanitarianism will be associated with increased medical outcomes. Table 12

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135 Though by referring to Table 5 in Chapter 3, the result regarding condition I narrows analysis to the first two rows.
presents results of regressions using the humanitarianism index and Table 13 presents results with the index decomposed into components. Again, the three differing measures of medical outcomes are used, and for each medical outcome regressions with and without controls are presented.

Table 12: Impact of Humanitarianism on Effectiveness

<table>
<thead>
<tr>
<th>Regression</th>
<th>Medical Outcome</th>
<th>Modified Indicators</th>
<th>Change in Modified Indicators</th>
<th>Percent Change in Modified Indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td></td>
<td>.614 (3.224)</td>
<td>.372 (2.693)</td>
<td>.160 (3.139)</td>
</tr>
<tr>
<td>II</td>
<td></td>
<td>4.133 (3.268)</td>
<td>- .160 (.055)</td>
<td>- .010 (.064)</td>
</tr>
<tr>
<td>III</td>
<td></td>
<td>.372 (2.693)</td>
<td>.160 (3.139)</td>
<td>.003 (.055)</td>
</tr>
<tr>
<td>IV</td>
<td></td>
<td>- .160 (.055)</td>
<td>.003 (.055)</td>
<td>- .010 (.064)</td>
</tr>
<tr>
<td>V</td>
<td></td>
<td>.003 (.055)</td>
<td>- .010 (.064)</td>
<td></td>
</tr>
<tr>
<td>VI</td>
<td></td>
<td>- .010 (.064)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Variable of Interest:
- Humanitarianism
- Controls
  - Battle
  - No Roads
  - Frequency
  - Population Density
  - Water
  - No Toilet
  - Health Facilities Per Capita

Controls:
- Battle
  - No Roads
  - Frequency
  - Population Density
  - Water
  - No Toilet
  - Health Facilities Per Capita

Summary Statistics:
- SER (Root MSE): 11.544, 10.870
- R²: .000, .206
- N: 87, 85

Unstandardized coefficients; std. error reported below, labeled for significance *p ≤ .10, **p ≤ .05, ***p ≤ .01

None of the above regressions result in a significant coefficient of humanitarianism. While regression II yields a large positive coefficient indicating a positive association between humanitarianism and medical outcomes, regressions IV and VI yield small negative, though still insignificant, coefficients. Therefore, these regressions fail to find a consistent or significant effect of the
index of humanitarianism on medical outcomes. With the exception of Frequency and Health Facilities Per Capita, in one regression, coefficients of other covariates are also insignificant. As there are few significant conclusions to be drawn from regressions of the index as a whole on medical outcomes, Table 13 presents regressions for the individual components.

Regression II on Modified Medical Indicators yields three significant coefficients on components of humanitarianism: Staff, Cooperation, and Dialogue. Staff has a coefficient of -567.514, suggesting a decrease of 567.514 points on the Johns Hopkins – Indian Institute of Health Management Balanced Score Card. Again, this is a rather large coefficient, but recall that Staff is expressed as a percent, so a more appropriate analysis is that a 1% increase in non-native staff is associated with a 5.675 point decrease in medical outcomes.

Cooperation also has a large, significant, negative, coefficient, suggesting a 98.392 point decrease in medical outcomes for a 1 unit increase in Cooperation. Again, this is a rather large coefficient, but as the Cooperation variable is structured with a minimum of zero and a maximum of 1, a 1 unit increase would not result even with a change from no cooperation with any actor, to maximum cooperation with all actors. A more appropriate analysis would be that a .01 increase in Cooperation, results in a decrease of .984 points on the medical scorecard. Such an increase in Cooperation would result from, for example, increasing cooperation with one actor from “Never” to “Rarely” on a scale of “Never, Rarely, Sometimes, Often, Very Often. Dialogue has the final significant coefficient among the components.
Table 13: Impact of Components of Humanitarianism on Medical Effectiveness

<table>
<thead>
<tr>
<th>Regression</th>
<th>I</th>
<th>II</th>
<th>III</th>
<th>IV</th>
<th>V</th>
<th>VI</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Modified Indicators</td>
<td>Change in Modified Indicators</td>
<td>Percent Change in Modified Indicators</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Medical Outcome</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Variables of Interest:</td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Funding</td>
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<td></td>
<td>(36.271)</td>
<td>(33.257)</td>
<td>(33.431)</td>
<td>(36.210)</td>
<td>(.685)</td>
<td>(.740)</td>
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<td>-.029</td>
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<td>(10.081)</td>
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<td>(.253)</td>
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<tr>
<td></td>
<td>(222.105)</td>
<td>(214.855)**</td>
<td>(222.195)</td>
<td>(251.196)</td>
<td>(4.553)</td>
<td>(5.136)</td>
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<td>Non-Medical</td>
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<td>(10.417)</td>
<td>(11.425)</td>
<td>(.213)</td>
<td>(.234)</td>
</tr>
<tr>
<td></td>
<td>(49.115)**</td>
<td>(45.083)**</td>
<td>(42.570)</td>
<td>(45.962)</td>
<td>(.872)</td>
<td>(.940)</td>
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<tr>
<td>Dialogue</td>
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<td>22.518</td>
<td>13.233</td>
<td>.430</td>
<td>.217</td>
</tr>
<tr>
<td></td>
<td>(41.734)</td>
<td>(42.238)*</td>
<td>(38.167)</td>
<td>(45.962)</td>
<td>(.782)</td>
<td>(.943)</td>
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<td>-.053</td>
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<td></td>
<td>(7.278)</td>
<td>(7.705)</td>
<td>(6.832)</td>
<td>(8.866)</td>
<td>(.140)</td>
<td>(.181)</td>
</tr>
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<td></td>
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</tr>
<tr>
<td>Battle</td>
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<td>-.100</td>
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<td>(1.699)</td>
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<td>-.004</td>
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<td></td>
<td>(2.414)</td>
<td>(2.639)</td>
<td>(2.639)</td>
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<td>Frequency</td>
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<tr>
<td></td>
<td>(1.036)**</td>
<td>(1.397)</td>
<td>(1.397)</td>
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<td>.014</td>
<td>(1.933)</td>
<td>(2.160)</td>
<td>(4.044)</td>
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<tr>
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<td>(15.856)</td>
<td>(18.017)</td>
<td>(18.017)</td>
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<td>Health Facilities Per Capita</td>
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<td>-31.863</td>
<td>-.717</td>
<td>(45.376)***</td>
<td>(48.651)</td>
<td>(48.651)***</td>
</tr>
</tbody>
</table>

Summary Statistics

| R²            | .085   | .341   | .009  | .050   | .008 | .053 |
| N             | 87     | 85     | 72    | 70     | 72   | 70   |

Unstandardized coefficients; std. error reported below, labeled for significance *p≤ .10, **p≤ .05, ***p≤ .01
Dialogue and Cooperation were constructed in the same way, and the positive coefficient suggests that a similarly small increase in dialogue results in a .705 point increase in scores on the medical scorecard.

Chapter 7 provides further analysis of these quantitative results in combination with the qualitative arguments of preceding chapters. This chapter will thus conclude by emphasizing meaningful quantitative results. First, regressions with disaggregated components of humanitarianism provide more insight than regression using the weighted index. Second, percentage of non-native staff and organizational policy on the treatment of combatants are the most relevant components of humanitarianism with respect to frequency of terrorist incidents. Both variables show a positive relationship between increasingly humanitarian conduct and increasing humanitarian space. Third, components Staff, Cooperation, and Dialogue, are the most relevant of the components with respect to medical outcomes, though outliers may affect the coefficient on Cooperation. Staff and Cooperation show positive associations between increasing humanitarianism and increasing medical outcomes, while Dialogue shows a negative correlation. Finally, quantitative analysis fails to find significant evidence for a conclusion regarding Condition II: Is humanitarian space and access or integration and ability to address root causes a more relevant determinant of medical outcomes? Added variable scatter plots for the three regressions leading to these conclusions are included in Appendix G.

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136 Recall that the component variables are structured such that increasing values indicate increasing politicalization, and thus decreasing humanitarianism. In order to state associations in the language of the hypotheses, for regressions of the components on medical outcomes signs must be reversed.
7. Discussion

This concluding chapter will first synthesize the quantitative and qualitative analysis of the thesis. It will then describe limitations before reviewing the contributions of this study and potential areas for further analysis.

I. Analysis

This thesis ultimately sought to evaluate two opposing arguments about humanitarian conduct in conflict settings. The Dunantist argument holds that humanitarian organizations must hold to the traditional humanitarian principles of independence, impartiality, and neutrality in order to be successful. Wilsonianism argues that holding to these principles at the expense of a comprehensive integrated approach addressing the root causes of need hinders relief efforts. Both of these arguments have merit, and ultimately address the relationship between degree of humanitarianism and effectiveness of humanitarian action. After developing a theory that establishes conditions to explain variations in that relationship, chapter four advances qualitative arguments about those conditions.

Based on statements by belligerents, attacks targeting politicized humanitarianism, and the views of humanitarian actors as well as recipients of humanitarian aid, chapter four concludes that in Afghanistan, truly humanitarian organizations will experience greater humanitarian space. Furthermore, by considering the current place of Afghanistan in the epidemiological transition, as well as the prevalence of trauma injuries likely to exist in a conflict zone, chapter four also argues that the medical needs currently faced by Afghanistan require
humanitarian space and access more than an integrated effort to address root causes.

However, while the statements and views cited indicate that truly humanitarian organizations will experience greater humanitarian space; they do not sufficiently establish what qualifies an organization as truly humanitarian. Therefore, chapter five develops a seven-component index of humanitarianism in an attempt to quantify exactly what “truly” humanitarian means. This index was based on scholarship regarding the traditional humanitarian principles of independence, impartiality, and neutrality. Chapter six quantitatively tests the hypothesis of the thesis, and most significantly allows the various components that describe humanitarianism to be compared.

Regressions analyzing a composite index of various characteristics of humanitarianism yield only a tentative correlation between degree of humanitarianism and degree of humanitarian space. However, when the components of the index are analyzed individually, two components, staff composition and organizational policy regarding the treatment of combatants emerge as especially relevant. A regression with full controls does not yield coefficients of traditionally reported significance for either the Staff or Combat variables, with p-values of 0.138 and 0.129 respectively. However, these values make both variables nearly significant at the 10% level, and clearly the two most significant components of humanitarianism with respect to humanitarian space, as measured by terrorist attacks. With the dependent variable measured on a log scale, the coefficient of Staff indicates that for every 1% increase in non-native
staff, frequency of terrorist incidents increases by 35.049%. Combat is measured on a likert scale, and based on coding methods, changing policy from “All armed personnel seeking care are given care provided that they do not bring weapons and/or military uniforms into the hospital” to “All armed personnel seeking care are given care” yields a change of 0.50 in the value of the variable. Since a 1 unit change in the variable combat is associated with a 122.2% increase in frequency of terrorist incidents, the 0.50 unit increase resulting from the above described change in organization policy is associated with a 61.1% increase in terrorist incidents.

Quantitative methodology also examined the assertion that in Afghanistan medical needs required humanitarian space and access to patients, rather than integration and efforts to address root causes. Quantitative results regarding this condition are much less clear. A series of regressions of frequency of terrorist attacks (a proxy for humanitarian space) as well as various variables measuring root causes of disease, on various medical outcomes yields only two significant coefficients. Both of these significant coefficients indicate a positive association between frequency of terrorist incidents and medical outcomes. This result is very counter-intuitive, and while various explanations for such a correlation exist, most involve an omitted variable, suggesting that the true effect of increasing incidents of terrorism on medical outcomes is not positive. Also, the positive correlation between terrorist incidents and medical outcomes does not remain consistent across the different metrics of medical outcomes (raw score, change, and percent

137 These quotations are possible responses to a question from the survey regarding treatment of combatants. The survey is included in Appendix A.
change). Furthermore, various established determinants of medical outcomes yield insignificant coefficients with unexpected and inconsistent signs.

The final quantitative test addresses the overall hypothesis that increasing humanitarianism is associated with increased medical outcomes. Again, tests that analyze the combined index of humanitarianism yield little significant insight. However, by testing individual components, three especially relevant characteristics of humanitarianism emerge: Staff, Cooperation, and Dialogue. All significant coefficients come from the regression on Modified Medical Indicators. Variable Staff has a coefficient of -568.514, suggesting that each 1% increase in non-native staff is associated with a 5.675 point decrease in the Modified Medical Indicators. The coefficient of Cooperation indicates that a 0.984 point decrease in Modified Medical Indicators for each 0.01 increase in Cooperation. Finally, the coefficient of Dialogue, calculated based on the same likert scale as cooperation, suggests that each 0.01 increase in dialogue is associated with a .705 point increase in Modified Medical Indicators.

In summary, variables Staff and Combat are the two most relevant components with respect to humanitarian space, while Staff, Cooperation, and Dialogue are the most relevant components with respect to medical outcomes. The variables measuring the politicalization of funding, changes brought about by the principal-agent relationship, and provision of non-medical services, as well as the composite index, failed to yield significant results. In considering this division between relevant and insignificant components, recall the dichotomy established

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138 Resulting for example from a one level increase in a likert scale response.
earlier between the two possible negative impacts of a principal-agent relationship, control and perception. The control-based variables Funding and Changes do not yield significant coefficients, while two of three perception variables, Combat and Staff, yielded nearly significant coefficients. Both hybrid variables Cooperation and Dialogue were also significant in at least one regression. Non-Medical did not yield significant results, which supports the assertion that not all non-medical activities are perceived as politicized. Indeed, survey responses indicate that the majority of non-medical services provided were nutrition services, which are unlikely to be perceived as an effort to support any specific political regime or process.

Within the relevant coefficients there are further interesting results. In the strongest regression on humanitarian space, both Combat and Staff had nearly significant positive coefficients. In this regression, positive coefficients support the original hypothesis that greater humanitarianism will result in greater humanitarian space. In the significant regressions on medical outcomes, Staff and Cooperation both have negative, significant results, suggesting that as politicalization of these variables increases, medical outcomes decrease. This supports the overall hypothesis that increasing humanitarianism will be associated with increased medical outcomes. However, Dialogue has a significant positive coefficient, suggesting that as dialogue with the various political parties increases, medical outcomes also increases. This is contrary to the original hypothesis, as Dialogue with political actors was considered one of the ways in which an organization could compromise the humanitarian principles of independence,
impartiality, and neutrality. However, this unexpected result can be explained by a more in depth analysis of survey responses. Organizations with high Dialogue score generally have very high sum of Dialogue scores, yet average variance of Dialogue scores. This suggests that those organizations with high Dialogue scores are engaged in a significant amount of dialogue with political actors, but that they are doing so equally. The International Committee of the Red Cross, perhaps the humanitarian organization most respected for being truly humanitarian, engages in such prevalent, yet equal, dialogue. Therefore, perhaps inequality of dialogue, rather than the total quantity of political dialogue is a more important component of the degree of humanitarianism.

The overall conclusions of this analysis of Afghanistan are the following. First, not all components of humanitarianism operate equally. Second, staff composition and organizational policy regarding treatment of combatants are the two most relevant components with respect to humanitarian space, while staff composition, cooperation with political actors, and dialogue with political actors are the most relevant components regarding medical outcomes. Finally, there is not sufficient evidence to support the established theory of humanitarianism for the collective index of components. However for two components, staff composition and cooperation with political actors, data offers statistically significant support for the theory.

As described in chapter five, the overall Dialogue score is weighted 0.5 times the sum of responses to a 5 likert scale questions and 0.5 times the variance of the same responses.
II. Limitations

These conclusions are limited by both theoretical and practical factors. First, the study is just one test of the theory developed in chapter three. While to some extent it supports that theory in the context of Afghanistan, being limited to one country it can only offer initial and partial support for the theory in a specific context. Further analysis under all possible combinations of the conditions of the theory is needed.

Several practical factors also limited analysis. Significant coefficients of the final regression were only found for Modified Indicators, and not for Changes in Modified Indicators, or Percent Changes in Modified Indicators, which would have yielded stronger confirmation of the theory. Also, while the Balance Package of Health Services provides a good case study, it limits analysis to organizations willing to sign memorandum of understanding with the Afghanistan Ministry of Public Health. This condition potentially eliminated very humanitarian organizations that viewed such an agreement inappropriate. Second, data was limiting. While more than twenty-five NGO’s were contacted, only fifteen responses were received and only eleven were relevant. A more comprehensive analysis would improve results. Additionally, medical data described provision of care in hospitals. A more relevant data set would measure health outcomes, such as life expectancy, mortality, morbidity, and fertility rates. More comprehensive control variables, such as distribution of provincial reconstruction teams, coalition troops, and historical measures of support for insurgents would also improve analysis. Finally, several assumptions had to be
made regarding existing data. It was assumed that the humanitarianism of organizations remained constant. While this was necessary given the difficulty of obtaining sufficient responses to a general survey, a more detailed, year-by-year database of similar survey responses would allow better analysis. It was also not possible to obtain sufficiently detailed financial information from organizations to weight politicalization of funding by percentage received from each specific donor. This led to the creation of the funding component for each organization based on its primary funding source. Finally, the control variables describing access to water, toilet facilities, population density, health care facilities per capita, and roads was not available on a year-by-year basis. As such it was assumed that these variables remained constant over the five years studied. Again, while this assumption was made based on necessity and the availability of data, a more comprehensive set of control variables would improve analysis.

III. Contributions and Areas for Further Research

Analysis of humanitarianism as a political phenomenon increased greatly in the aftermath of the Cold War as humanitarian action became more relevant to international relations. This study contributes to the analysis in four main ways. First, rather than take a side in the exiting debate between Wilsonianism and Dunantism, it uses game theory to develop a comprehensive theory that systematizes and simplifies analysis of humanitarianism based on two conditions. This theory allows the development of hypotheses about which of the two traditional theories of humanitarianism is most applicable to a given conflict setting. Second, it uses this theory to develop and test hypotheses regarding the
humanitarian environment in Afghanistan from 2004-2008. Results of these tests can guide political, military, and humanitarian personnel as the development and securitization of Afghanistan continues. Third, it uses an index of humanitarianism to develop a quantitative approach to a question traditionally analyzed from qualitative historical, moral, and legal perspectives. Finally, it analyzes the individual components of what it means to be truly humanitarian.

There are significant areas for further research. First, analyzing multiple conflict settings with all possible combinations of the conditions established by theory would provide a more comprehensive test of the theoretical principles proposed here. For example, Iraq arguably presents a case study of a conflict setting in which humanitarianism is a relevant determinant of humanitarian space, yet because the country and medical system are more developed, and the population is older, humanitarian space is not as relevant to medical outcomes as integration. Based on such additional study, the principles of this theory may have to be expanded or modified. Additionally, further applications of quantitative methodology to humanitarianism will undoubtedly yield more accurate measurements of characteristics of humanitarianism, the consideration of further characteristics, and improved methods of analysis of the resulting data.

As globalization increases and conflicts continue to change, humanitarianism will remain a relevant phenomenon of international politics. Humanitarian relief is a powerful tool that can be used to improve lives and relationships around the world. Yet, diverse cultural, political, conflict, and medical conditions complicate analysis and decisions regarding effective
humanitarian conduct and relationships in conflict settings. As such, further analysis is necessary to develop understanding the complicated determinants and impacts of humanitarian action and to ensure that it continues to be a force for good in the international community.
Appendix A: The Survey

The following survey is part of research conducted to inform a senior thesis in government at Harvard University. At this time the project is for purely academic purposes and not for publishing. If you have any questions regarding the survey or the research project as a whole, please contact Christopher Behrer at cbehrer@fas.harvard.edu.

1). Please describe your organization’s medical operations in Afghanistan. Specifically, if your organization provided BPHS programming from 2004-2008, please indicate provinces and districts of your organization’s BPHS programming.

2). What is your organization’s annual budget for operations in Afghanistan?

3). What are your organization’s sources of revenue for operations in Afghanistan?

4). If your organization has received grants, government funding, or donations:
   a). Which organization(s) provided these grants?
   b). What percentage of funding was received from government donors?
   c). Were any restrictions placed upon the use of funds or non-monetary support received through grants? If so rank the extent to which these restrictions changed your organization’s operations.

   No changes                Insignificant Changes                Some Changes
   Significant Changes         Very Significant Changes

5). How many in-country staff does your organization employ? How many of these staff are natives of Afghanistan?

6). What percentage of your organization’s operational budget is devoted to medical services?

7). Does your organization engage in non-medical activities?
   a). If so, what are these activities?
   b). What percentage of your organization’s operational budget for Afghanistan is devoted to non-medical activities?

8). Please indicate the frequency of cooperation between your organization and the following organizations in carrying out operations.
   a. The Government of the Islamic Republic of Afghanistan
9). Please indicate the frequency of dialogue between your organization and the following organizations.

a. The Government of the Islamic Republic of Afghanistan

Never          Rarely          Sometimes          Often          Very Often

b. International Security Assistance Forces (Including Provincial Reconstruction Teams)

Never          Rarely          Sometimes          Often          Very Often

c. The United States Armed Forces

Never          Rarely          Sometimes          Often          Very Often

d. The UN Mission in Afghanistan (UNAMA)

Never          Rarely          Sometimes          Often          Very Often

e. Other forces involved in the conflict including insurgent forces

Never          Rarely          Sometimes          Often          Very Often
10). Many humanitarian organizations have reported restrictions on access to certain areas and subpopulations of Afghanistan. Please indicate how often your organization was unable to carry out an operation as planned or expand operations because of security concerns or restricted access.

| Never | Rarely | Sometimes | Often | Very Often |

11). Please select from the options below the most appropriate description of your organization’s approach to treatment of armed personnel.
   a. All armed personnel seeking care are turned away
   b. All armed personnel seeking care are given care.
   c. All armed personnel seeking care are given care provided that they do not bring weapons and/or military uniforms into the hospital
   d. Only official military personnel are given care
   e. Our organization has not encountered a situation involving armed personnel seeking care.
   f. Other. Please describe:

12). Have your organizations operations, with respect to questions 7 – 11 changed significantly between the years of 2001 and 2009?

Please feel free to include any additional comments below:
**Appendix B: Provision of BPHS Programming by Province and Year**

This chart is based on responses to the survey included in Appendix A. A description follows.

<table>
<thead>
<tr>
<th>Province</th>
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<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
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<td>MEDAIR(7)</td>
<td>MEDAIR(7)</td>
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<td>SC (1c), SAF</td>
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</table>

Numbers in parenthesis describe districts of responsibility, except in reference to BRAC in Kabul, and SC is Faryab where (1c) indicates responsibility for 1 cluster. (x) represents that the province was dropped due to violence or, in the case of Daikundi in 2004, non-existence. BRAC* for Balkh province indicates the BRAC was the lead NGO and BDN was a sub-partner.
Appendix C: Data – Coded Survey Responses

<table>
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<tr>
<th>NGO</th>
<th>2. Budget $ (annual)</th>
<th>4a. Source HRI/US</th>
<th>4b. % Gov. Funding %</th>
<th>Source x % (0-4)/4</th>
<th>4c. Changes %</th>
<th>5. Number of Staff #</th>
<th>5. % non-Afghan %</th>
<th>7b. % Non-Med.</th>
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* MERLIN requested that information regarding funding not be disseminated

Note: Questions 8 and 9 ask organizations to rate cooperation and dialogue (respectively) on a scale of “Never” “Rarely” “Sometime” “Often” “Very Often” with the following organizations: (a) The Government of the Islamic Republic of Afghanistan, (b) International Security Assistance Forces (c) The United States Armed Forces (d) The UN Mission in Afghanistan (e) Other forces involved in the conflict including insurgent forces.
## Appendix D: Humanitarianism Score by Province and Year

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Unless otherwise noted, scores are either entirely attributable to the one active NGO for which data was available, or weighted based on Districts. Exceptions include: (1) Balkh Province, BRAC is the lead NGO, BDN is a secondary partner: scores are weighted: (.75BRAC + .25BDN). In (2) Kunduz and (3) Nuristan in 2007, responsibility was transferred mid-year; weighting is 50% of each NGO involved in the transfer. In (4) Parwan province, score is weighted (.50) BRAC + (.50) IMC as full district information was not provided, but IMC indicated that responsibility was approximately evenly shared. (x) represents that the province was dropped due to violence or, in the case of Daikundi in 2004, non-existence.
### Appendix E: Summary Statistics

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Appendix F: Modified Medical Indicators

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Appendix G: Added Variable Scatter Plots

Regression on Frequency of Terrorist Attacks: Scatter plots starting with the top left and moving across rows are: Funding, Changes, Staff, Non Medical, Cooperation, Dialogue, Combat, Battle Fatalities, No Roads, Population Density, and Water

Regression on Modified Medical Indicators: Scatter plots starting top left and moving across are Funding, Changes, Staff, Non Medical, Cooperation, Dialogue, Combat, Battle Fatalities, Frequency, No Roads, Population Density, water, No Toilet, and Health Facilities Per Capita
Regression on Modified Medical Indicators: Scatter plots from top left moving across are Frequency, Water, No Toilet, Per Capita Health Facilities, Battle Fatalities, No Roads, and Population Density

Regression on Change in Modified Medical Indicators: Scatter plots from top left moving across are Frequency Water, No Toilet, Per Capita Health Facilities, Battle Fatalities, No Roads, and Population Density
Regression on Modified Medical Indicators: Scatter plots from top left moving across are Frequency, Water, No Toilet, Per Capita Health Facilities, Battle Fatalities, No Roads, and Population Density


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