

Health and justice: The capability to be healthy

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Abstract

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Health and social justice: The capability to be healthy

This is an inter-disciplinary argument for a moral entitlement to a capability to be healthy. Motivated by the goal to make a human right to health intelligible and justifiable, the thesis extends the capability approach, advocated by Amartya Sen and Martha Nussbaum, to the theory and practice of the human health sciences. Moral claims related to human health are considered at the level of ethical theory, or a level of abstraction where principles of social justice that determine the purpose, form, and scope of basic social institutions are proposed, evaluated, and justified. The argument includes 1) a conception of health as capability, 2) a theory of causation and distribution of health capability as well as 3) an argument for the moral entitlement to a sufficient and equitable capability to be healthy grounded in the respect for human dignity. Moreover, the entitlement to the capability to be healthy is defended against alternative ethical approaches that focus on welfare or resources in evaluating and satisfying health claims.

In specific, it is argued that human health is best understood as a capability to be healthy—a meta-capability to achieve a cluster of basic and inter-related capabilities and functionings. Such a cluster of capabilities and functionings is in line with Martha Nussbaum's central human capabilities. A theory of causation and distribution of health capability is put forward that integrates the "classic" biomedical factors of disease (genetic endowment, exposure to hazardous materials, behaviour), social determinants of disease, and Drèze and Sen's econometric analysis of the causation and distribution of acute and endemic malnutrition.

Furthermore, the argument critiques Norman Daniels's revised Rawlsian theory of health justice, and advocates for the capability approach to recognize group capabilities in light of "population health" phenomena. Lastly, the thesis also argues that a coherent, capability conception of health as a species-wide conception will tend to make any theory of justice recognizing health claims a cosmopolitan theory of justice.

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This dissertation is the result of my own work and includes nothing which is the outcome of work done in collaboration except where specifically indicated in the text.

The dissertation does not exceed 80,000 words including footnotes and appendices but excluding bibliography as required by the Degree Committee of the Faculty of Social and Political Sciences. It follows the Modern Humanities Research Association Style Guide.

List of Abbreviations

CA capability / capabilities approach

CH capability to be healthy

CHCs central human capabilities

SR sophisticated resourcist

Statement of Length

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Introduction

Introduction

1. The study of and concern over disparities in health achievements across social groups in industrialized countries, and the persistence of high prevalence of preventable mortality and impairments in poor countries have recently been conceptually brought together under the umbrella term 'health equity'. In order to motivate global-social action to address health disparities, it is argued that ethical values compel decreasing 'health inequities' across individuals and social groups. Not all health constraints are necessarily morally troubling. Therefore, to identify which impairments qualify as inequities that require a response as a matter of social justice, three criteria in the form of a decision tree have been put forward. A health constraint becomes a health inequity when it is deemed to be first, a) avoidable, then b) unnecessary, and then c) unjust or unfair. Society is said be morally obligated to prevent and mitigate the health constraints that remain after applying the three-tier filter. (Whitehead, 1990; Whitehead, 1992; Evans *et al.*, 2001)

2. Though it has admirable intent, there are a number of weaknesses of this three-tier 'health equity' approach. The most prominent weakness is the overarching vagueness about whether the moral concern is for the distribution patterns of health constraints—seen in terms of relative differences and inequities—or for other dimensions such as the absolute levels of health functionings, for the types of causes, for the consequences, or for all of these aspects. Aside from this general ambiguity, there is a lack of clarity at each step of the decision tree. At the first decision level of determining whether a health constraint is avoidable or not, there is no distinction made between whether a health constraint should be considered as being unavoidable because of the lack of resources or unavoidable because there is no extant epidemiological knowledge about aetiology, control, or treatment. Both resource and informational limitations can make a

health constraint, including the ultimate constraint of death, unavoidable in a given location. However, given 'health equity' advocates are greatly concerned with extreme global health disparities it would take the bite out of the approach if limits on local resources were allowed to determine what is avoidable or not. Because limited resources and institutional capacities are obvious and significant reasons why health constraints persist in many poor countries, most of the health disparities would become unavoidable and thus, could not be identified as inequities. At the same time, if limited local resources and institutional capacity cannot determine whether a health constraint is unavoidable, then it is unclear who is supposed to be compelled to act by the moral force of this framework. If not local institutions, who is supposed to satisfy the local resource needs or stand in for the absent institutional capacities?

3. A different set of implications follows when scientific knowledge determines whether a health constraint is avoidable or not. Depending wholly on the expertise of epidemiology to determine which constraint is avoidable or not means taking as given existing disease categories and their underlying epidemiology. This would absolve any social obligations to assist individuals with impairments and causes of mortality that are not currently recognized by 'western medicine' such as those listed in the ICD-10.¹ (World Health Organization, 2007) Second, because the criterion of 'avoidable' relies first and foremost on scientific knowledge of aetiology, control, and prevention, it expresses full confidence in the epistemology, coherence, and ethics of the practice of epidemiology. Yet, the history of research scientists' engagement with health concerns such as women's reproductive health or HIV/AIDS should caution against such wholehearted confidence in epidemiology's objective pursuit of scientific knowledge and practice. (Reid, 1992; Epstein, 1996) Third, because the criteria of 'justice and fairness' is the last step, the health constraints and their disparities that become classified as unavoidable or necessary by the first two steps are outside the scope of ethics. That is, no justice claims can come from individuals who

¹ The World Health Organization maintains a global reference database of all constraints on health referred to as the International Statistical Classification of Diseases and Related Health Problems, 10th Revision.

experience unavoidable or ‘necessary’ impairments and mortality. Simply put, considering justice and fairness last means that the expertise of epidemiology is allowed to drive the scope and content of ethics rather than ethics driving the purpose and scope of the instrumental science of epidemiology. (Khushf, 1987; Weed, 1996; Weed *et al.*, 1998; Weed *et al.*, 2001)

4. Even accepting justice and fairness as the last consideration, the ‘health equity’ approach expresses no clear commitment to a particular conception of justice or fairness. There are references to human rights, and oblique references to Rawlsian social justice, and to Amartya Sen’s and Martha Nussbaum’s Capabilities Approach. (Peter *et al.*, 2001) It is also important to note that despite the use of human rights rhetoric by ‘health equity’ advocates, the view is actually unsympathetic to rights. The view expresses a particular form of utilitarianism—rule utilitarianism—where the underlying argument is that the state of the world would be much better overall (i.e. more health) if certain human rights, such as access to a minimum package of healthcare goods and services, were protected, provided, or promoted. The protection of rights is invoked here as part of a purely consequentialist view.² ‘Health equity’ advocates would likely have great difficulty navigating the conflict between rights and unlikely to side with rights in the classic conflict between individual rights and increasing overall social benefit. Decreasing the magnitude of disparities is likely to have priority over individual rights. As the current ‘health equity’ discussions are largely focused on aggregate health inequalities across social groups or populations, what rights or claims individuals have under a ‘health equity’ regime is unclear.

5. This three-tiered approach to responding to health constraints is clearly an exercise in applied philosophy. It seeks to apply ethical principles to existing institutions and practices, particularly to the clinical and public health sciences. Ethicists are often fond of saying that ‘ought implies can’

² Rights can have a place in consequentialist analysis as has been argued by Sen. However, such an analysis is not made by ‘health equity’ advocates. Instead, they advocate absolute rights for instrumental reasons. For an analysis of rights and consequentialist reasoning see (Sen, 1981; Sen, 1984a; Sen, 1996)

and thus, it seems understandable to begin 'health equity' analysis with existing health institutions and their capacities, particularly that of epidemiological science. But the shortcomings of this kind of applied philosophy are also clear in this situation. Even after setting aside the uncertainty regarding who are the responsible agents and where the resources to build institutional capacities will come from, allowing epidemiological expertise to wholly determine the parameters of ethical reasoning that then determines the scope of social responses to human mortality and impairments is unjustified. Science is a social endeavour and epidemiologists are fallible like all human beings. Their fallibility, biases, and disciplinary limitations should preclude them from being the foremost or ultimate arbiters of the goals and breadth of the social response to health inequalities. Of course, the same can be said about philosophers. Neither profession can be the sole arbiter of what the social response should be to constraints on human health.

6. Moreover, the social response to individuals who are vulnerable to or experience unavoidable impairments or mortality cannot just be silence. Within the 'health equity' framework they are literally pushed outside the margins of moral concern. Respect for their equal moral worth has to be accounted for somewhere. And, the notion that some mortality or impairments are necessary is profoundly problematic, requiring extraordinary justification as a matter of justice, and cannot be presupposed to be acceptable as is done here.

7. Though the 'health equity' movement and its decision tree are commendable for drawing on ethics to motivate greater social action addressing health inequalities, it is unfortunately an insufficient ethical framework. Relying on the capacity of existing institutions, even if it is scientific expertise, precludes the comprehensive ethical evaluation of the causes, consequences, and distribution patterns of health constraints. All three dimensions of human health have moral relevance. The question of which impairment or mortality is unjust or unfair across individuals and groups—because of its causes, consequences, or distribution—must precede considering what our current social institutions are capable of

addressing. If the right social institutions or capacities do not currently exist to address unjust or unfair health constraints, then our ethics should compel us to create such institutions and capacities.³

8. Considering the epidemiology of an impairment prior to justice evidences a view that human health is foremost a phenomenon of nature, a 'natural good', to which social institutions must respond. Such a view is increasingly untenable given the growing recognition of the social production of determinants of impairments and mortality within and across societies as well as the extent of human/social domination over nature and individual agency.⁴ A human being's health is a product of iterative interactions between nature/biology, social institutions, and individual agency. Thus, considerations of justice, or the principles that govern the actions of individuals and social institutions, cannot be secondary to the study of nature but must be integrated with it. Proceeding in this vein, what follows is an argument for a moral entitlement to health at the level of ethical theory. That is, claims related to human health are considered at a level of abstraction where principles of social justice that determine the purpose, form, and scope of basic social institutions are proposed, evaluated, and justified. The argument includes 1) a conception of human health, 2) a theory of causation and distribution of health as well as 3) an argument for a moral entitlement to a capability to be healthy (**CH**).

9. From the perspective of this three-part argument, every human being has a moral entitlement to the CH, and at a sufficient level that is commensurate with human dignity. Showing respect for the equal moral worth and dignity of every human being entails the protecting, promoting, and restoring where possible her CH. Such obligations map onto a diverse range of actors depending on how they are situated to the causes, consequences, and distribution patterns of health capability achievements and failures across individuals and social groups. That is, different agents striving to

³ For an example of an argument for a moral claim to actions or goods that are not immediately available see Sen's argument for a 'meta-right' or claim of citizens against their government that it must progressively realize economic and social goals. (Sen, 1984a)

⁴ This view is apparent in Thomas Pogge's remark that the state of nature would not produce eight million poverty related deaths per year. (Pogge, 2005)

show respect for the equal dignity of human beings have different moral duties that can range from the duty not to constrain the CH ('harm'), and alleviating consequences of past harm, to protecting, promoting, or restoring health capability. Thus, the argument aims to illustrate that the health of human beings from the perspective of social justice requires continuous and iterative evaluation and social responses to the causes, consequences, and distribution patterns of a CH across individuals and social groups.

10. The present argument for the entitlement to the CH—more specifically, to the social basis of a sufficient and equitable CH—extends the Capabilities Approach (**CA**) advocated by Sen and Nussbaum into the fields of health sciences including biology, epidemiology, clinical medicine, and public health. The CA, at least the Senian version, has been described as a 'broad normative framework for the evaluation and assessment of individual well-being and social arrangements, the design of policies, and proposals about social change in society'. (Robeyns, 2005: p 94) So far, the CA has had significant influence in numerous fields including welfare economics, political philosophy, and social development planning and policy. In extending the CA to the health sciences and concern for human health in general, the three parts of the present argument bring together concepts and debates in the philosophy of biology and health, social determinants of health research as well as political philosophy to put forward a scientifically and ethically integrated argument.

11. A 'general' theory of health and social justice needs to describe what health is, how it is created and distributed, and why it is valuable to human beings. It should also be able to identify what to make of differences in health across individuals—what claims and obligations individuals have in regard to their health and the implications for the rights and duties of other agents. For the sake of simplicity, the capacity to describe what health is and how it is created and distributed can be thought of as the descriptive capacities of such a theory. Its capacity to guide an ethical social response to the differences in health across individuals and groups can be thought of as its ethical or normative capacities. The argument for an entitlement to a CH presented below has many of these capacities, and much more. But the

argument is not presented as a general theory because it is insufficient as a theory by itself. It is unlikely that it could be a theory even if it relied even more heavily on the CA than it does already. That is, fleshing out a health capability within a general theory of capabilities would be one way to produce a theory of health and justice. But such an option is unavailable. On the one hand, Sen rejects the need for ‘transcendental theories’ to do justice, implying that his conception of the CA is not intended to be one those comprehensive theories. (Sen, 2006) On the other hand, Nussbaum asserts that her version of the CA is only a ‘partial’ theory of justice. It is meant to be a minimal or sufficient conception of social justice. (Nussbaum, 2006: p 70-71) So in either case, extending the CA to health concerns will not deliver a full theory of health and social justice.⁵ For now, the present argument for the CH can be seen as articulating a framework and moral basis of a human entitlement to the capability to be healthy.

12. The argument for a moral entitlement to a capability to be healthy or CH is divided into three parts. In Part One, Chapters one and two present arguments for a theoretical conception of health and a unified theory of causation and distribution of health. In Part Two, Chapters three and four review the CA and presents ethical arguments for a CH as an extension of the CA. In Part Three, Chapters five thru eight present arguments for how conceiving of an entitlement to a CH is superior to ‘welfarist’ and ‘resourcist’ approaches to social justice. Chapter six is largely focused on critiquing Norman Daniels’s recently revised Rawlsian approach to health and social justice. Chapter seven and eight introduce the need to identify group capabilities in light of the ‘population health’ paradigm and research as well as the implications for global justice theory that result from implementing a concept of health as a species-wide capability. The critique of Daniels and implicitly Rawls continues in Chapter 8 because of their difficulty in addressing health concerns across national borders. The ‘descriptive’ or

⁵ This contrasts with the approach of Norman Daniels who extends Rawls’s theory of justice to health issues, and presents it as a full theory of health and social justice. Of course, this makes his argument entirely dependent on the coherence of Rawls’s theory. To withstand criticisms against Rawls’s theory, Daniels has recently begun also drawing on Scanlon’s moral contractualism as well as trying to show similarities with the CA and opportunities for welfare approaches. (Daniels *et al.*, 1999; Daniels, 2007)

empirical science arguments of Part One are presented in conjunction with the normative argument for a moral entitlement to a CH in Parts Two and Three because they provide independent support. They establish independently, rather than as an extension of CA, the coherence of understanding health as a capability and the robustness of an 'entitlement' theory of causation and distribution of a health capability.⁶

13. The three parts of the argument are mutually reinforcing, and the entire argument is inter-disciplinary. Applied philosophy necessarily has to be interdisciplinary as it applies philosophical scrutiny to a particular subject that has its own distinct assumptions, goals and methodology. Such an endeavour is particularly complicated when philosophical scrutiny takes aim at the natural and biological sciences, as they are often perceived to be outside the scope of values. The arguments presented here aim to create some common understanding across the natural and social sciences as well as ethics on a range of ideas including the concept of human health, how it is caused and distributed, and what the ethical social response should be to the absolute levels and relative differences in health capability across individuals and populations. If need be, Part One may be understood as arguments in the sub-disciplines of philosophy of biology, medicine and epidemiology. Parts Two and Three are arguments in political philosophy that are situated against the background debates on whether the focal point of distributive justice should be on individual welfare, resources or capabilities.⁷

14. Chapter 1 presents a theory of human health as a CH, or more specifically, an overarching 'meta-capability'. A person's health should be understood to be an assessment of her capability to achieve, exercise or, express ('achieve') a cluster of basic and inter-related capabilities and functionings. Chapter 2 presents a theory of causation and distribution of health that conceptually integrates its four causal factors which include individual biology, exposures to material particles, influence of social conditions, and individual agency (skills and choices). Even though Chapter

⁶ This use of entitlement refers specifically to the 'entitlement analysis' used by Jean Drèze and Amartya Sen, which is understood as the precursor to the CA.

⁷ Rights theories are not discussed separately as capabilities are seen as a species of rights. The moral entitlement to social support for the CH is presented as being a 'cluster-right' as identified by Judith Jarvis Thomson.

1 advocates a conception of health that is more expansive than a narrow focus on disease, Chapter 2 argues for a theoretical model of causation and distribution that is applicable to both a limited focus on disease as well as the broader focus on health capability, or achieving a cluster of capabilities and functionings.

15. We arrive at the notion of health as a capability to achieve a cluster of basic and inter-related capabilities and functionings through first rejecting the incoherent though dominant view of health as the absence of disease. Disease, in this view, is defined as a biological part or process's deviation from the statistically normal distribution of functioning.⁸ This now classic and purportedly scientific account initially advocated by Christopher Boorse in the 1970s has numerous flaws which are reviewed. Eschewing the 'naturalistic' or objective path to a definition of human health of Boorse and others, we instead review and adapt Lennart Nordenfelt's holistic theory of health. His theory, roughly stated, is that health is the ability to achieve vital goals. However, even though Nordenfelt provides a strong case for conceiving health as the ability to achieve vital goals, he includes the clause, 'given standard circumstances' to account for local cultural norms and practices determining the content of vital goals. Though this seems descriptively accurate, local cultural norms or social practices are significant determinants of much avoidable mortality and morbidity around the world. This is evident in the situation of girls and women in many developing countries. Poor reproductive and sexual functionings in girls and women because of patriarchal cultural norms leads to millions of avoidable deaths and impairments every year. (MDG and Reproductive Health Team, 2004) Because cultural norms can undermine the achievement of vital goals of individuals, especially affecting those who are socially powerless, the meaning of health becomes empty if local cultural practices have absolute determining power over the content of vital goals, or who can achieve them and when. So we replace Nordenfelt's fully culturally relative, descriptive

⁸ For the sake of simplicity it will be assumed that statistically normal means the health measurement is a cardinal value and within two standard deviations of a standard normal curve. A measurement is 'normal' when it falls within the central ninety-five percent of all the range of given measurements.

account of health as achieving vital goals with another account of a human-species-wide minimum conception of vital goals. This is done by replacing Nordenfelt's empty set of culturally relative vital goals with Nussbaum's account of basic human capabilities, or activities and opportunities that constitute a life with minimal human dignity. Nussbaum also offers compelling reasoning to view these basic capabilities as pre-political moral entitlements, or claims to social support for exercising these basic capabilities, as being a source of basic political principles guiding social organization.

16. Another significant contribution of reorienting our notion of health away from the absence of disease or statistically normal functioning to the framework of capabilities will be the surmounting of explanatory and informational limitations of current epidemiological models used to identify the determinants and distribution of impairments. Conflating our general concern for health with the narrow and ambiguous concept of 'disease' has created much confusion for both our understanding of the variety of concerns we group under health as well as how and what we identify as the causes, consequences, and distribution patterns of health. The field of epidemiology, which is the informational engine of public health programmes and clinical medicine, identifies the causes, distribution, and effective treatments of diseases and related health problems ('impairments') in individuals. Yet, notwithstanding the prodigious amounts of health research being published, a divisive debate is taking place amongst epidemiologists concerning whether the determinants of disease can only include individual-level 'biomedical' factors such as genetic endowment, exposures to material substances, and lifestyle behaviours or whether supra-individual factors such as social processes that have influence through distal factors and psycho-biological pathways can also be legitimate determinants. At the heart of the debate is whether epidemiology should be seen as a natural science seeking to objectively identify natural phenomena or whether it is an instrumental and social science with a social mission. (Krieger, 1994; Susser *et al.*, 1996a; Susser *et al.*, 1996b; Rothman *et al.*, 1998; Marmot, 2006)

17. Meanwhile, social epidemiologists continue to accumulate evidence about a range of social determinants that explain the causation and social distribution patterns of impairments and mortality due to chronic conditions. (Berkman *et al.*, 2000) Social determinants are causes behind the proximate, biomedical causes of impairments and mortality. The fact that these determinants are social processes, and not the usual physical materials, and that they can often be one step removed from a proximate, individual level biomedical determinant raises complex theoretical and practical challenges for establishing the chain of causality. The non-material nature also means that the observations of the causal phenomenon will be contaminated with social values. Nevertheless, it is clear that the current linear cause and effect and exposure to disease/no disease ratio models dominant in epidemiology are inadequate. Even with sophisticated multi-factor statistical regression analysis, the existing biomedical categories of factors cannot sufficiently explain the causation and distribution patterns of chronic conditions. (Syme, 1996) In contrast, social determinants research is proving to be far more robust. Social determinants research is also questioning the model of discrete exposures by highlighting the broader interactive and iterative processes between the individual and the environment over the life course. A new model of causation and distribution is needed that can capture both the biomedical causal factors as well as the social causes over the entire life course. (Susser, 1994a; Susser, 1994b; Susser *et al.*, 1996a; Susser *et al.*, 1996b; Marmot, 2005; Marmot, 2006)

18. Chapter 2 presents such a candidate theory of causation and distribution of health that applies to epidemiology the 'entitlement theory' initially developed in the field of development economics. Epidemiology is, at the core, driven by statistical analysis. Thus, it has much in common with other social sciences such as economics that use statistics to model human behaviour. To the extent that economic analysis can model the influence of the social environment, it behoves epidemiology to make use of those tools to model the influences of social environment on health.⁹ Jean Drèze and

⁹ Recent research on multi-level environmental analysis in social epidemiology has much in common with empirical analysis used in economics and sociology. See Subramanian. (Subramanian *et al.*, 2004)

Amartya Sen constructed a general theory of famines or rather, malnutrition that explained its causes as well as asymmetric effects. (Drèze *et al.*, 1989) That is, after showing how the scarcity of food explains only some occurrences, they were able to fully explain the causation and distribution of different levels of malnutrition across individuals. They did this through building a model that accounted for the influence of an individual's endowments (biological needs, labour capacity, productive land, and government transfers) and abilities to make adequate exchanges in the marketplace (social conditions) in meeting nutritional needs. (Drèze *et al.*, 1989) The independent and interactive effects of the diversity in personal features/endowments, social environment/market prices, and abilities to convert personal endowments and social arrangements determine the different 'bundles' of food a person can acquire. The amounts and diversity of bundles of goods that each person is able to acquire then reflects the asymmetry in nutrition levels across individuals. Thus, the scarcity of food in the physical environment is 'demoted' to being only one type of causal factor or explanation. In sum, Drèze and Sen were able to thoroughly model the interactions between nature/biology, society/market arrangements, and individual agency in an individual's capability to achieve and actual achievement of adequate nutrition.

19. Epidemiologists can learn valuable lessons from evaluating the significant differences between what would result from a traditional biomedical, epidemiological analysis of the causation and distribution of malnutrition, and the analysis produced by Drèze and Sen. The biomedical focus on individual level exposure or non-exposure to physical quantities of micronutrients seems myopic in comparison to Drèze and Sen's general theory of causation and distribution of acute and endemic malnutrition. How is it that two economists can explain the causation and social distribution patterns of malnutrition anywhere in the world at any time period better than epidemiologists can? What value does the biomedical model's level of analysis have in the actual prevention and mitigation of malnutrition? It seems the value of applying the entitlement theory from famine analysis to epidemiology is the dramatic expansion of explanatory variables beyond just

personal biological features, exposures to physical materials, and lifestyle choices.

20. The entitlement analysis adds the causal component of social conditions which can have either direct or second-order impact. This importantly allows entitlement analysis, which has evolved into the CA, the ability to integrate the classic biomedical model of disease causation with cutting edge research on the social determinants of health. (Marmot, 2006) In fact, the CA has much to offer social determinants research. The capability model of causation and distribution can integrate the disparate strands of social determinants research including research on influence of material conditions over the life-course; the effects of income inequality, stress, and lack of autonomy on psycho-biological pathways; and, even research on social cohesion. Moreover, applying the CA to social epidemiology highlights how even social determinants research actually focuses on the causation and distribution of disease, not health. Through providing a coherent conception of health that is richer than concern for disease, and showing how modelling and statistical methodology from economics can be used to analyse health issues, the CH idea and causal model offers the potential to expand even the social epidemiologists' toolkit.

21. Based on the template of Drèze and Sen's model of the general theory of malnutrition, an individual's CH or bundles of health 'beings and doings' that can possibly be exercised by a person are created by the interaction between 1) an individual's biological needs or features, 2) her physical and mental abilities to convert her own endowments and external, extant material goods and social conditions into health functionings, and the extant 3) material goods and 4) social conditions in the environment.¹⁰ In purely descriptive terms, the failure to achieve certain health 'beings and doings' such as living a normal length of life span or avoiding impairments can be explained in terms of having insufficient bundles of 'beings and doings' due to the independent and interactive effects of the four causal

¹⁰ The analysis of luck as a causal factor is deferred in this dissertation. Because luck works through all these four categories it is a cause of a different order. For discussions on luck see Nagel, Nussbaum, and Williams. (Nagel, 1979; Williams, 1981; Nussbaum, 2001)

factors. A person's health being 'constrained' means that their bundles of 'beings and doings'—their entitlement set of functionings—are either not comprehensive enough, being restricted, or both.

22. However, because human beings do not live in a complete state of nature but in an environment that is largely socially constructed, responsibility for the failure of capabilities can be thought of being due to a large extent from the lack of sufficient supportive external material and social conditions ('social basis') or due to personal choices ('agency'). Nature (biology), individual choice, and society (material and social conditions) interact in the daily circumstances of life of every human being and produce complex patterns of benefits and disadvantage, most glaringly in the differences in life spans and morbidity. (Nagel, 1997) That does not mean, however, that all three have equal causal weight. The extent of the ability of modern human beings to influence or exert control over nature, other human beings, and material and social conditions means that causation must to a large extent or indeed, ultimately refer to human and social actions or inactions. Despite a model of causation positing four types of causal factors in the achievements and failures of capabilities, the greatest responsibility lies with social institutions.¹¹

23. Part Two there is a shift to developing an argument for a moral entitlement to a CH in line with the CA developed by Sen and Nussbaum. (Sen, 1999a; Nussbaum, 2006) It is argued that every human being has a moral entitlement to the social basis of a sufficient and equitable CH because of its intrinsic value in constituting human dignity as well as its instrumental value for conceiving, pursuing, and revising ('pursuing') one's own life plans within contemporary global society. It makes use of both the Senian capability 'analytical device' as well as Nussbaum's normative argument for pre-political entitlements to basic capabilities that are said to arise out of human dignity and equal moral worth. (Nussbaum, 2000; Robeyns, 2005) As

¹¹ In response to Onora O'Neill's argument that rights only exist where there are perfect obligations, Sen writes that rights sometimes produce obligations for whoever can help. Such a notion that, even without an identifiable agent, whoever can help must do so exemplifies the thinking that social institutions or human societies are ultimately responsible for what does and does not happen in the world. (Sen, 2004c; Sen, 2005)

such, the CH argument presented here is a Sen-Nussbaum ‘hybrid’ argument. As described in Chapter 1, it is also indebted to the work of Lennart Nordenfelt. His trenchant critique of the biostatistical and other disparate theories of health, and his argument for health as an ability to achieve vital goals links capability theory to longstanding discussions in the philosophy of health, biology and medicine.¹² (Nordenfelt *et al.*, 1984; Nordenfelt *et al.*, 2001b)

24. Drawing on Aristotle and Marx, Nussbaum claims that for a person to be able to live a life worthy of the dignity of the human being entails that she possesses certain capabilities that represent various kinds and amounts of activity and opportunity. These ten central human capabilities (CHCs), each ‘above’ a specified threshold, all-inclusively constitute a level of substantive freedom to pursue one’s own ends in such a way that is commensurate with the dignity of the human being.¹³ (Nussbaum, 2006) A liberal society, according to Nussbaum, should guarantee pre-political entitlements to this set of basic human capabilities to conceive and pursue one’s ends. The breadth of capabilities account for the unique ‘neediness and sociability’ of human animals in addition to their reasoning powers. The dignity of the human being reflects its ‘enmattered’ animality as well as its rationality. A social guarantee to the social basis of these capabilities would show respect for the dignity of the human being and the equal moral worth of every human being.¹⁴

¹² The CH argument is also influenced by the sociologist Bryan Turner’s recent work on human vulnerability. He advocates placing the notion of human vulnerability at the centre of social and political philosophy and as serving as the foundation for a sociological theory of human rights. (Turner, 2006). Turner’s theorizing is compelling for its starting point is the shared human vulnerability to suffering and loss of dignity that is an inherent aspect of being a physically embodied being.

¹³ The idea of thresholds and levels reflect the notion that these capabilities can be measured in a particular way. Measuring capabilities and functionings is a difficult project on its own, but will be assumed to be a plausible concept and uncontroversial at this point.

¹⁴ Nussbaum’s notion of dignity highlights the difference between the human animal from other animals. For example, the way a human eats in social surrounding is different from the way another animal might eat. Rather than deny that humans are animals, these capabilities are aimed to prevent human animals from having to live like other herd animals which survive only by instinct and are pushed around by the forces of nature/environment and random events.

25. In the realm of political theory and social policy, proponents of the CA argue that human capabilities, such as the ten CHCs, should be the primary focus of social/distributive justice rather than an exclusive focus on the distribution of welfare, resources, opportunities, access to advantage, liberties, or some other similar conception. Such a CA proponent should also be convinced that the CH should be a central if not the first consideration in conceptualizing social justice. If capabilities are to be the focus of social justice, then the CH should be considered first among valuable capabilities. There should be a priority of the CH among capabilities and thus in social justice because on the one hand, if a person is no longer alive there is little point in discussing to which capabilities they are entitled or what justice owes them more generally.¹⁵ On the other hand, dismissing the concerns for physical and mental impairments of persons who are alive as being outside the purview of social justice is disrespectful to the majority of humanity who are differently constrained by impairments to pursue their own ends.¹⁶ By not addressing a real and burdensome aspect of the experience of daily living for most of humanity in the cotemporary world, theorizing about social justice that brackets health issues can be thought of as purely academic at best. At its worst, such reasoning exhibits wilful ignorance. The CH of individuals, rather than be taken for granted in theorizing about social justice, should be understood as fundamentally determining the real 'worth' of all capabilities to pursue and revise life plans.¹⁷

26. As a coherent extension of the primary concern for the right to life of every citizen, the concern for the CH of citizens should be first priority of social institutions. The CH includes the capability to live a normal length of life span and achieve a cluster of capabilities and functionings. The respect

¹⁵ I do not assert that there is absolutely no point as I am still open to some of Kamm's interesting arguments for how and what we might owe people that are no longer alive. Bryan Turner also cites the example of a right to a decent burial. (Kamm, 1993; Turner, 2006).

¹⁶ Nussbaum's CHCs include all different kinds of capabilities so the argument here for the priority of CH is directed at other capabilities theorists and others not following Nussbaum.

¹⁷ In a footnote in *The Law of Peoples*, Rawls largely defers to Sen and CA with respect to basic capabilities being prior in importance to primary goods, and the use of primary goods in order to get as close to 'Sen's effective freedoms'. In other discussions Rawls defers to Sen regarding the needs of individuals below a threshold of basic functioning. See (Rawls, 1993; Rawls, 1999: p 13)

for the right to life of individuals is foremost on any society's list of basic organizing principles. But health concerns are thought to be in the realm of medicine and require the distribution of resources or subject to lifestyle choices. And social obligations to prevent threats to life and threats to health are distinguished in an ambiguous way. (Venkatapuram, 2006b) The CH argument conceptually 'reunites' or integrates the ability to stay alive and the ability to be healthy. Death is seen as the ultimate constraint on dignity and health functionings, caused by biological, material, social, and volitional causes. Thus, a conception of social justice which begins with human dignity, which includes the CH, makes the CH the first concern on the social and indeed, global justice agenda. The argument for the CH and human dignity should serve to elevate the notion of health justice to the same level as the concern for political and economic justice. Without health capability there is no equal human dignity nor can economic and social justice be pursued.

27. It would be misguided to interpret the present CH argument as either advocating the forcing of individuals to be healthy, or as making scientifically ill-informed arguments for entitlements to impossible health achievements. The spectre of perfectionism or the impossibility critique directed against the CA can also be as easily and mistakenly posited against the argument for the CH. The present argument is for the entitlement to the social basis of the CH and reflects a continual awareness of two dimensions. On the one hand, it recognizes the normative importance of individual choice and responsibility in liberal theory. But the respect for individual agency is set against the background of our most current sociological understandings of the links between agency and (global) social structures broadly. It is also aware of the agency-structure debates in specific relation to health issues. (Turner, 2004) On the other hand, the argument reflects an awareness of the most current scientific developments in the health sciences while taking a critical view of the parameters, methodologies, and social practices of scientific research. (Trostell, 2004; Venkatapuram, 2006a) Too often, philosophers defer to the expertise of natural scientists, and these scientists rarely question the epistemology or ethics of their expertise. In fact, part of the driving force

behind the argument for the CH is that ethical reasoning has so far not kept current on the knowledge of the causes, consequences, and distribution patterns of human mortality and impairments. Too much is deferred to the authority of scientific expertise, and extant information on impairments and mortality is too readily accepted. And conversely, scientific practice in the health sciences, particularly in epidemiology and public health, has only just begun to incorporate philosophical reasoning. (Weed, 1996; Weed, 1999; Roberts *et al.*, 2002; Weed *et al.*, 2003)

28. Both Sen and Nussbaum have indeed referred to human health concerns in terms of capabilities. Sen has suggested such a capability through various examples of health functionings. And Nussbaum has explicitly identified a CH among the ten CHCs. However, the writings of both create much uncertainty about the content of a CH in either of their versions. An example from each may elucidate such an assertion. In the monograph *Inequality Re-examined*, Sen contrasts the subjective welfarist understanding of well-being with the 'well-ness' of a person understood as the achievement of a set of interrelated functionings that can include 'being adequately nourished, being in good health, avoiding escapable morbidity and premature mortality, etc...' (Sen, 1992 p.39) Looking beyond his concern to distinguish between well-being and wellness, his listing of being healthy as a separate functioning from being adequately nourished and avoiding morbidity and premature mortality is confusing. Lest this is seen as a one-off instance of ambiguity, Sen's vehement refusal to identify any 'core' or 'basic' capabilities has meant that there has been a lack of comprehensive evaluation of any single capability aside from the use of examples to buttress the general arguments for the CA in various areas of social concern.¹⁸ (Sen, 1998a; Sen,

¹⁸ See (Sen, 1984a; Sen, 2002b) Moreover, it is unusual that the text of the keynote address, 'Health from the perspective of freedom' presented at a conference in 2000 at the Harvard Medical School is still unavailable almost seven years later. While the basic form of the present argument for the CH being that individuals have a right to the equal capability to be healthy was affirmed at that conference, the lack of any comprehensive consideration of health capability has meant having to draw on a diverse range of modest length articles and speeches by Sen that discuss health and capabilities as well as those written by others on the subject that are often rife with conceptual errors. See (Sen, 1984a; Sen, 1992; Sen, 1994a; Sen, 1998b; Sen, 1998a; Sen, 1999c; Sen, 1999d; Sen, 1999b; Sen, 1999a; Sen, 2001b; Anand, 2002; Sen, 2002b; Sen, 2002a; Ruger, 2004a; Ruger, 2004b; Sen, 2004b; Anand, 2005; Ruger, 2006; Ruger *et al.*, 2006)

1999a; Sen, 1999c; Sen, 2002a; Sen, 2002b; Sen, 2004b) Important for the present for CH, Sen's refusal to identify any basic capabilities also means that his version of the CA cannot provide a species-wide conception of health. Like Nordenfelt, Sen offers only an empty set of capabilities. Health capability will be whatever different societies choose to include as being basic through public deliberation.

29. In contrast, Nussbaum provides the most thorough discussion so far of the capability to be healthy of persons in *Women and Human Development*. (Nussbaum, 2000 pp. 70-96) However, she too leaves a lot undone. In that exposition, Nussbaum points out the need to determine which health functionings should be induced, rather than just ensuring the capability, as well as the need to determine what threshold levels of various functionings must be achieved in order to be considered adequate. Nevertheless, she defers the important discussion on which functionings must be induced and the minimum levels of health functionings to a future legislative stage and public deliberation. (Nussbaum, 2000: p 91) There are still many aspects of the causes, consequences, distribution of health achievements and failures that need to be considered as a matter of first principles. Furthermore, even if all ten capabilities are important for Nussbaum, it is hard not to notice that biological viability ('life') and physical integrity are still listed first and second on her list. Such covert priority can be avoided or reduced if and when health is understood as a CH—an assessment of the entire cluster of basic capabilities—as it is done here.

30. Nussbaum's partial theory is commendable for making severe physical and mental impairments of human beings a central concern of the basic principles of justice. She emphasizes that taking into account the interests of severely impaired individuals at the first stage of ethical reasoning on basic principles will result in substantive guidance for the basic structures of society rather than cursory accommodations. But she does not go further and consider the implications for such first principles that would result from integrating the most current research, debates and theories of causation and distribution of health functionings. The health capabilities and functionings she does outline within the ten CHCs should be understood as

implicitly referring only to the avoidance of disease. She does not seem to have yet considered more fully the current debates on the determinants and distribution of human impairments and mortality, or the epistemology of the underlying individual biomedical model of disease causation. Her discussions of health capabilities take the concepts of disease and health as given. At the same time, even she recognizes that health institutions are equipped with necessary but often abused powers of coercion and paternalism. In light of such coercive authority combined with the remarkable findings in research on the social determinants of health constraints/inequalities means that providing only a rough outline of health capabilities, while asserting their centrality to human life and dignity leaves far too much work undone. A capability to be healthy has to be centrally and explicitly identified and developed.

31. One implication of giving more consideration to health capability, which is particularly relevant to Nussbaum's approach, is that in light of the recent social determinants research and global experience with new and resurgent infectious disease epidemics, ensuring the social basis to even just a sufficient threshold level of health capability for every citizen will require a stringent and irrevocable commitment to certain basic social arrangements. Nussbaum conceives her list as being a source of political principles up to the individuals reaching certain thresholds of capabilities. Social determinants research shows that even above a threshold level of material sufficiency, social inequalities in such things as control, stress, and respect in the workplace have influence through psychobiological pathways. Thus, there will be a need to permanently regulate or prevent certain social inequalities in order to prevent or mitigate resulting inequalities in health capability. That is, some kinds of social inequalities across individuals and groups should not be allowed even after every individual has the minimum level of central capabilities. This leads to discarding the possible notion of a minimal conception of central capabilities as a preliminary standard that needs to be reached through provision of minimal material goods and social conditions. Rather, whatever the level of material and social conditions, ensuring a minimum set of CHCs means that certain kinds of social

inequalities cannot be allowed for they will always threaten to undermine minimum thresholds of CHC or CH. Such an understanding casts doubt on Nussbaum's openness to the possibilities of other kinds of social justice theories, such as that of Rawls's theory, after the ten CHC are realized for every citizen.¹⁹ Instead of certain levels being reached by individuals, it is more helpful to think of society as a system. A more thorough appreciation of the causation and distribution of the ten CHCs in light of social determinants research will more than likely mean that some of the stringent requirements for or against certain social conditions under a central capabilities regime will have to be permanent. The options for above the thresholds will not be as open as Nussbaum seems to imagine, thus making the ten CHCs a more permanent feature of social justice.

32. Furthermore, though both Nussbaum and Sen advocate a significant role for public deliberation in determining the specific content and prioritization of capabilities socially guaranteed in a given society, it is far from clear how such public deliberation would occur. What does public deliberation look like that would be in line with the CA? The role public deliberation will have in relation to the CH is no exception to this general uncertainty. In fact, research has shown that using public deliberations in health policy making tend to be very complicated. (Hadorn, 1991) Nevertheless, there are at least three places in the CH where public deliberation must come in. First, in the initial discussions on the concept of a list of basic or central capabilities that is part of achieving overlapping consensus. Second, in identifying the sufficient and equitable thresholds of basic capabilities within and across societies. Third, there must also be public deliberation on how to prioritize the social responses to the determinants, consequences, and distribution patterns of absolute levels and relative inequalities in health capability. The upshot of this is that public

¹⁹ Nussbaum writes that her ten CHCs comprise a partial theory of justice because they do not identify all the requirements of what is necessary for a just society. The ten CHCs only identify what will be guaranteed as a social minimum no matter what else is decided. She also argues that putting forward a partial theory is acceptable because the world is so far from ensuring the every human being has these minimum capabilities that constructing a complete theory of justice can be deferred. P 75. (Nussbaum, 2006) In contrast, Sen argues that a complete 'transcendental' theory is not necessary to do justice in a particular situation. (Sen, 2006)

deliberation is central to the protection, promotion, and restoration of the CH of individuals but more reasoning needs to be done as to how such deliberations can occur in line with the CA.

33. Thomas Pogge makes the point that though public deliberation is an important component of CA, the advocates of the CA should still put forward specific content and rankings. They are, after all, respected members of the public. (Pogge, 2002a) This comment was directed particularly at Sen who has hitherto been unwilling to specify any particular capability as being valuable. However, Sen has recently been more willing to identify some capabilities which he believes would be valued by all societies. Yet, he still insists against any assertion of 'the one list' of capabilities. (Sen, 2004a) In any case, either in Sen's off-the-record reflections on commonly valued capabilities or Nussbaum's ten CHCs, the CH is present and prominent. But it is too under-described by both writers. Admittedly, it could be said that the CH is probably less ambiguous or less ignored in the CA literature than other capabilities that also could be considered basic such as education, or political participation. The general schematic nature of capabilities in the literature may be understandable given Sen and Nussbaum are arguing for a general theory to social justice rather than one particular capability. Nevertheless, it seems undeniable that the CH has to be a basic, if not the first capability of human beings.

34. While it is possible to argue for a CH separate from any theory or approach to social justice, by extending the CA to some central and foundational issues in the health sciences, the aim is to add value to both the CA and the health disciplines. In following the rigorous and radical critique initiated by the CA in the fields of economics and political philosophy, the argument for the CH aims to similarly reorient health sciences towards expanding human capabilities. There is a pressing need to counteract the dominance of evidence based medicine, efficiency analysis, and aggregation of health achievements. (Khushf, 1987; Anand *et al.*, 1997) There is no dispute that social responses to human health issues have to be clinically and epidemiologically effective in addressing health concerns. The most appropriate knowledge and technology must be identified and applied to the

health issue at hand. And the social responses also have to be efficient in the allocation of social and material resources when it is clear that demand for resources outstrips supply. However, considering the equitable distribution of resources after the scope of healthcare treatments is identified and efficiency calculations have been made is inadequate.²⁰ Just as justice needs to be considered prior to epidemiology, justice has to be considered 'upstream' prior to distributing healthcare through the continuous ethical evaluation of determinants, consequences, and distribution patterns of health constraints across individuals and social groups.

35. Though the driving motivation behind formulating the argument for a moral entitlement to the CH is that the CA has something to offer our reasoning on health and justice, the argument in turn produces some suggestions for followers of both versions of the CA to consider. The final chapter concludes the dissertation by presenting some of those points for CA advocates to consider in the further development of the CA. Furthermore, the shortcomings of purely resourcist or welfarist conceptions of health claims which are presented in Parts Two and Three are identified as additional ammunition against these competing approaches. And lastly, it should be noted that at the same time as putting forward an integrated argument for an entitlement to a health capability, the eight chapters herein present at least seven original arguments contributing to capability theory literature. They include:

35.1. A conception of health as a capability to achieve a cluster of basic capabilities and functionings. This conception links the CA to the longstanding philosophy of health debates.

35.2. A capability based theory of health causation and distribution is proposed that integrates the individual level biomedical model with social determinants research, and which goes beyond the focus on disease. The conception of health as capability and theory of

²⁰ This is not to say that there are no justice issues in the allocation of healthcare. Daniels identifies three unsolved rationing problems. He identifies them as the aggregation problem, the most in need versus the most benefit problem, and the fair chance versus greatest benefit problem. See Daniels's 'Equity and Population health.' (Daniels, 2006)

causation and distribution of health capability both provide independent support for a CH outside of the CA.

- 35.3. It is illustrated how the moral claim to CH, and indeed any capability, can be understood as a 'cluster right' as outlined by Judith Jarvis Thomson.
- 35.4. An explicit analysis is presented of how a CH would fare against health claims from welfare or resource theories.
- 35.5. Norman Daniels's revised Rawlsian theory of health justice is reviewed and criticized from a capability perspective.
- 35.6. Some basic ideas from social epidemiology and 'population health' are extended to the capabilities literature to argue that capability theory needs to recognize group capabilities.
- 35.7. It is argued that a coherent conception of health as a species-wide conception means that health claims in the 'primary goods space' of any distributive theory will tend to transform it into a cosmopolitan theory of justice.

36. The scope and limitations of this argument.

37. The present argument is severely constrained foremost by an 80,000 word limit. Indeed, each of the eight chapters could have been expanded to 80,000 words and been a dissertation on its own. But the guiding aim of the research project has been to illustrate how the idea of a right to health could be made coherent and justifiable through the CA. Achieving that required examining some foundational concepts both in the health sciences and in ethics. This also meant covering a lot of ground in a number of disciplines, asking ambitiously expansive questions, and becoming exposed to the benefits and pitfalls of inter-disciplinary research. Indeed, the CA has been described as 'post-disciplinary' as it can potentially bring together a variety of disciplines cutting across empirical and normative analysis. (Robeyns, 2002) In any case, the value of putting forward the big picture on health and capabilities within the word limit has been taken to be worth the price of leaving out or giving less consideration of a range of issues, at least for now.

38. The argument avoids presenting interesting background material or reacting to disparate points and debates that cut across the topic of health inequalities and (global) social justice. Importantly, the argument also does not settle every matter that it raises. At this point in the evolution of the CA, and its even more nascent application to health issues, building a framework while highlighting some challenges is seen as a worthwhile endeavour.

39. Aside from considering the coherence of the overall argument, a variety of factors determined what was included and excluded within the argument for the CH. Some topics were substantively researched but excluded simply because of the lack of space. They are thought not to affect the main components of the argument. Things that were left out included a review of individual and population health measures as well as recent work on health and social capital. Some discussions were left out because they were published or presented elsewhere. (Venkatapuram, 2006a; Venkatapuram, 2006b) Discussions on bioethics and nascent 'public health ethics' were left out because they were largely negative critiques of their inadequate consideration of recent work in political philosophy. Lastly, it will be clear that even though there is a nascent but growing interest among political philosophers on the topic of health inequalities, whether domestic or global, many of these disparate arguments are not responded to here. This is a result of having thoroughly to consider and respond to one philosopher in particular. Chapter 6 is entirely devoted to Daniels's theory and implicitly John Rawls's theory. Daniels's theory is the most direct ethical competitor to a capability perspective, and indeed, is put forward as a substantive or comprehensive theory. The contributions made by others are particular points rather than whole theories. Therefore, the limited space is devoted to reviewing Daniels which should inform responses to the arguments put forward by others.

40. Lastly, some topics have been deferred for future research because they were too unwieldy within the time constraints of a PhD at Cambridge. These topics include considering a methodology for choosing capabilities and their thresholds as well as how to aggregate capabilities across individuals in order to make resource allocation decisions. Other difficult topics that had to

be left aside include determining a capabilities view on luck or accident, the place of personal responsibility in regard to health capability, and the place of subjective and objective assessment of a person's health capability. It is hoped that readers will come to agree that deferring these various topics for future research does not fundamentally undermine or threaten any of the parts or the whole of the argument presented here.

Part One

Chapter 1: Health as Capability

41. This chapter criticises, and proposes an alternative to, the theory behind the prevailing notions in clinical medicine and in broader 'health systems' that health is the absence of disease. It also seeks to undermine the related views that addressing health concerns means preventing or containing diseases, and that health 'needs' are largely requirements for healthcare goods and services. The 'scientific' theory behind such views suggests that a person is healthy when they have no disease. Disease in turn is defined as the abnormal functioning of a biological part or process. More specifically, a condition is classified as disease when the measurement value of a functioning of a biological part or process falls outside the normal distribution of measurements belonging to others in the same sex and age category as the individual. Though the term 'disease' in common parlance connotes a great variety of conditions, disease in this 'biostatistical theory' (BST) refers only to atypical functioning of any biological part or process that contributes to survival and reproduction. For example, a broken bone would be considered a disease because various biological parts and processes affected are functioning differently from ninety-five percent of similar parts and processes in individuals of the same age-sex reference group. And a functioning bone can be identified as making a contribution to the human organism's survival and reproduction.

42. This BST theory of health initially put forward by Christopher Boorse exhibits a number of flaws, but they have not deterred its prevailing influence in the theory and practice of health sciences. The two most important flaws of the BST are its inability to adequately account for the influences of the environment on individual functioning, and its focus on the biological goals of survival and reproduction. The reasons for the BST's continued perseverance seems to be that it is thought to be plausible most of the time, and better than any alternatives. The theory of health proposed here rejects

both the pursuit of a purely objective, factual definition of health and one that is focused on the ambiguous concept of disease. Instead, it builds on Lennart Nordenfelt's 'welfare theory of health' as the ability to achieve vital goals. Nordenfelt provides a valuable, trenchant critique of Boorsean type theories, and a compelling argument that incorporates the influence of the environment and for viewing health as the ability to achieve or exercise some basic functionings.

43. However, Nordenfelt's argument suffers from a significant weakness as it allows for a wholly culturally relative set of vital goals or basic functionings. That is, while he may have achieved a descriptively coherent idea of health as achieving vital goals, Nordenfelt also implicitly affirms the cultural relativity of a concept of health. The theory proposed here replaces Nordenfelt's empty set of vital goals with a species-wide conception of basic vital goals, or central human functionings. As a result, the theory of health put forward here is that the health of an individual should be understood to reflect the assessment of her ability to achieve or exercise a cluster of basic capabilities and functionings. Such a 'meta-capability' to achieve or exercise basic capabilities bridges the gap between the biomedical usage of the term 'health' to evaluate the presence of disease and its social and ethical usage to assess an individual's well-being and abilities to function in the world.

44. Broadening and reconfiguring the concept of health away from the focus on atypical or abnormal functioning of internal biological parts and processes to one which evaluates a person's capability to exercise some basic functionings in the world obviously has a cascade of implications. In the first instance, reconfiguring our conception of health will affect the framework and methodology we currently use to study the causation and distribution of what we currently define as health. That is the subject of Chapter 2. Thereafter, a new conception of health will affect how we respond to the differences in health, their causes, and their consequences. More immediately, the current chapter examines Boorse's and Nordenfelt's theories of health and introduces the idea of health as a capability to achieve or exercise a cluster of basic capabilities and functionings.

45. **Section 1: The bio-statistically normal theory of health.**

46. Starting in the late 1960s contentious debates ensued in the United States and the United Kingdom over the scientific objectivity of the concept of disease and related concepts such as health, illness, malady, and disability. In response to some of the extreme positions asserting that disease is simply a socially constructed category reflecting disvalued conditions, Christopher Boorse published a series of four articles in the late 1970s with the aim to establish a scientific and value-free definition of health and illness. His self-stated, ambitious aim was to create a theory of health which would also be a theory of medicine since the aim of medical practice is to address the health needs of human beings. He seemed to assume, like so many others still do, that medicine and health are mutually encompassing ideas. If the concept of health is defined then the scope of medicine becomes defined; if the scope of medicine is defined then health becomes defined. The supposedly complete or perfect mutuality between health and medicine is what allowed Boorse to claim that his theory of health would also bring coherence to the everyday use of health concepts in medical practice.

47. Boorse asserts that his theoretical definition of health expressly separates out the value-laden aspects from the objective aspects, and is modelled on the empirical outlooks of scientists such as biologists and pathologists who, as he argues, have value-free and factual understanding of their subjects of study. During the three decades since its publication, Boorse's theory has become standard in medical teaching even though it has provoked tremendous criticism and summarily dismissed in the literature. In 1997, Boorse attempted a formidable rebuttal to a compilation of over two decades of criticisms. His theory of health, presented in its 1997 form, contains the following four components: (Boorse, 1997)

1. The *reference class* is a natural class of organisms of uniform functional design; specifically, an age group of a sex of a species.
2. A *normal function* of a part or process within members of the reference class is a statistically typical contribution by it to their individual survival and reproduction.

3. A *disease* is a type of internal state which is either an impairment of normal functional ability, i.e. a reduction of one or more functional abilities below typical efficiency, or a limitation on the functional ability caused by environmental agents.
4. *Health* is the absence of disease.

48. To recapitulate the four points in reverse, a living thing is healthy if it is not diseased. To be diseased means that somewhere in the inter-related and organized physiological structure, a biological part or process is functioning outside the normal distribution of values typical for the reference class of the species. Normal functioning refers only to the contributions parts and processes makes to the survival and reproduction of the individual. Given that physiological parts and processes change over the life-course, and some are different in males and females, an individual's normal function is compared to those of other individuals of the same sex and age reference class.

49. The basic underlying idea is that human biological functioning is geared towards or 'designed for' survival and reproduction. Biological parts and processes exist in order to contribute to a causal chain of processes of survival and reproduction. Biological functionings of parts or processes that are not causally related to reproduction or survival are excluded from the domain of health. This is why a physical deformity, even though it is atypical, because it does not directly affect survival or reproduction is not a disease and thus, not related to health. Moreover, instead of one set of ideal values or average values, the statistically normal distribution model presents a range of values that occur most frequently across a group of human beings. This is important because not only does it imply variation among the human species, it is also unable to say if someone is less or more healthy within the range. One of the more provocative components of Boorse's theory is that he claims that mental disease can also be defined similarly through the tabulation of the normal distribution of mental functionings across human beings. What is most common becomes the standard for what is healthy.

50. Accompanying the theoretical definition, Boorse also put forward a theory of illness to capture the value aspects of health. The concept of an

illness serves to make clear and plausible the making of a distinction between the value-free factual and value-laden practical use of scientific concepts. Boorse argued that the term illness is and should be used in medical practice to identify the sub-class of diseases which a society attaches normative judgements. That is, in the clinical, social, or legal usage, the term illness should identify the subset of diseases which are judged to have negative value. A concept of illness is necessary, according to Boorse, because not all diseases are valued negatively. For example, a blockage in the fallopian tubes would theoretically be a disease but it could be valued by a woman who does not want to bear children. Therefore, the obstruction may not necessarily be deemed an illness. Disease is said to be cogent as a theoretical concept, but illness is needed as a practical concept. Boorse offered the following four criteria for defining a sub-class of diseases as illnesses. A disease is an illness only if:

- (i) it is serious enough to be incapacitating; and is
- (ii) undesirable for its bearer; and
- (iii) a title to special treatment; and
- (iv) a valid excuse for normally criticisable behaviour.

51. Of the disparate range of criticisms levelled against his theory which outlines concepts of disease, health, and illness, Boorse himself acknowledges and has tried to reply to four types of criticisms. The first category criticises his concept of statistically normal functioning in relation to environmental change. The second category criticises his notion of diseases. The third type refers to species variation, while the fourth type relates to age and biological purpose. Referring back to his theory, Boorse argues that a disease is either an internal, abnormal functioning or a limitation of functioning caused by environmental factors. The first type of limitation refers to a comparison between an individual and the group. The second limitation refers to the decrease in the functionings of an entire population. He recently added the second clause in order to accommodate environmental catastrophes where the entire population is affected. Without such a clause, reduced health functionings would be considered healthy because the majority of the population also has reduced functionings. Of

course, the comparison in the second scenario is between the group and a theoretical or counter-factual alternative.

52. Despite this accommodation, Boorse's definition is still open to the criticism that it conceives of humans as functioning at one constant level. For the theory to make sense, one has to imagine a human body working like a machine that functions at a constant rate. Numerous critics have pointed out that humans carry out various activities in different environments, and that biological functionings are dynamic making possible short term adaptations to changing conditions in the environment. As the temperature becomes hotter, colder, or as the altitude increases, the body's physiological processes adapt in order to reach some level of homeostasis. The BST does not really account for the body's ability to alter functionings in order to adapt to changes in the environment. Some of these adaptive processes can be short-term such as perspiration, and others can be long-term such as metabolism. By not taking into account the ability of the body to adapt, the BST will misclassify individuals as being diseased when they are actually adapting to their immediate environment in order to survive.

53. A slightly different adaptation criticism is that the BST ignores what the individual is actually doing and thus, will misclassify individuals as diseased when they are undertaking different kinds of activities that alter their biological functionings. Unlike in the previous examples where the body adapts to changes in the environment, here, a person pursuing an activity such as running a marathon would be identified as exhibiting abnormal functionings compared to the rest of her age-sex reference class. Assuming that her entire reference class is also not running a marathon, during the period when the body is fully exerting itself, the BST would classify her as diseased because her measurements would likely fall outside the normal distribution range of her reference-class.

54. The changes in functionings because of having to adapt to changing environments or in undertaking various activities reveal a necessity to take into account the interaction between the individual and the environment. The BST holds constant both the activity and the environment. Alternatively, it would have to consider all adaptations in all environments and all

functionings during all activities as being within the normal range. But this would mean the BST would lose significant analytical power in being able to differentiate between normal and abnormal. One would not be able to differentiate between a person who is running a marathon from a person who is just short of experiencing hypothermia or indeed, a person who is sleeping. The normal distribution of values would simply become too broad to offer any meaningful distinctions.

55. Boorse's reply is that he had initially thought of these two types of environmental challenges but assumed that averaging across a large reference class would take care of these variations. That is, if the measurements of a large enough group is used, then the measurements of a person when she is resting, when she is in a cold environment, or when she is running marathon would all fall under the normal distribution. However, if these environmental adaptation issues do indeed persist, then according to Boorse, the theory only requires adding the stipulation in a 'statistically normal environment' in the definition.

56. Putting in the stipulation of a standard environment means the range of normal values of a functioning is linked to a particular standard environment; as the standard environmental conditions change, the range of normal functioning values also moves with it. Thus, a person living at high altitudes would be compared against others living at high altitudes in contrast to before where there was no consideration of changes in the environment. This would also presumably apply to all the different types of activities individuals could carry out in an environment.

57. However, standardizing the environment has significant additional implications that Boorse either is unaware of or ignores. When the biological functioning of a reference class is standardized to a particular environment, it means that it is localized to a particular geographical location. The consequence is that the definitions of disease and health are no longer a species-wide conception but one that is geographically relative or specific to a sub-group of human species.¹ This would be a plausible definition if

¹ This is important as the reference class is no longer coextensive with all of the human species, but groups of humans in similar environments. This makes it even

human beings were animals that were only reactive agents living in nature. But because human beings have and are able to transform their surrounding environments, the normal distributions of their functionings in a given environment cannot be thought of as scientific or objective. It is conceptually flawed to make a range of human functionings standard to a particular geographical environment when the environmental conditions surrounding any group of human beings have been shaped by human beings. Categorizing adaptations in biological functionings as normal even though they were induced by some level of human influences on the physical and social environment introduces values into the definition of health. Human beings can shape their own environment thus they shape their own biological functionings to a significant extent. This counters the notion that human biological functions are objectively designed for survival and reproduction, and their adaptations are part of reaching those goals. Moreover, as the human influenced environment begins shifting the entire distribution range of functioning in the direction of either lesser or more effective functioning the belief in the 'naturalness' or 'objectivity' of the range will likely be replaced by a comparison with a theoretical 'ideal' standard. Lastly, the 'statistically normal environment' stipulation really produces the biggest problem where the concepts of 'statistically normal environments' and political borders are thought to overlap. That would mean that whatever the prevalent levels of health functionings in a country or continent, that range of functionings would be considered healthy.

58. A second conceptual flaw of the BST is that it categorizes as healthy any processes the body initiates to ward off disease. It does this because biological processes to fight disease are features common to the majority of human beings. For example, when an infectious organism enters the body, the immune system marshals a variety of processes geared towards fighting off the infection. We would normally call the infection a disease and the process of fighting it a period of illness. Yet, from the perspective of the BST,

more likely that Boorse would have to group populations according to geographic and political boundaries. While Daniels may (problematically) be able to take political boundaries as morally relevant, Boorse loses much of his value-neutral pretensions.

all of these functionings occur in a statistically normal way and contribute to the goal of survival and reproduction of the organism. Thus, the BST cannot recognize the infection and the body's response to an infection as a disease. Boorse responds that indeed, such immune responses are normal. However, he argues, the disease lies in the injury at the point of entry of the infection, and any consequent death of cells. The death or decrease in functioning of cells consequent to infection defines disease.

59. Critics respond that if the death of a single cell can mean disease, then every human being is theoretically diseased. Boorse concurs that indeed, according to his theory every human being is likely to have a disease. Yet, for Boorse, this is not a theoretical deficiency. Every body can be theoretically diseased, but only some diseases are considered illnesses requiring a response through clinical medicine. Nevertheless, if we are to follow his original theory, a person with a few dead cells may not be ill, but because they have a disease, they cannot be thought of as healthy either.

60. A third critique of the BST concerns how it deals with the intersection between the age reference class and the supposed biological goals of survival and reproduction. The reason Boorse includes the age reference group is because human beings obviously begin a process of physiological development starting from conception and go on to experience the degenerative aspects of aging. At the same time, Boorse also identifies individual survival and reproduction as the goals of normal biological functionings. Functionings which do not contribute to the goals of survival or reproduction do not have any place in the theoretical definition of disease and health. For example, structural deformities which have no impact on survival and reproduction cannot be considered diseases even if they are extreme deviations from normal distribution. This supposedly provides a clear criterion to divide medical care addressing health needs from other services such as cosmetic surgery.

61. Critics have questioned the choice of survival and reproduction as the two primary biological goals as well as the possibility of conflict between them. One critic asks what the point of health or biological functioning is in a woman who has already reproduced and is in the stage post-menopause?

From a theoretical species evolution perspective, survival of post-menopausal women becomes irrelevant because they have already achieved their goal or served their purpose. Boorse replies that irrespective of the goal-directed aspect of the BST definition of health, from a purely descriptive perspective, there is a normal range of biological functionings which occur in the reference class of menopausal women. Thus, one is still able to identify whether the functionings in a particular post-menopausal woman is normal or healthy. For example, the statement 'a heart is there because it pumps blood,' offers no explanation of the goals of the function but is purely descriptive and factual. Such an account of functions could then describe the normal range of biological functionings of post-menopausal women. What Boorse aims to do is simply rely on the idea of health as a functioning that is similar to most others. But of course, if in considering the case of post-menopausal women, if non goal-orientated functioning can be judged to be normal and abnormal, or healthy and diseased, then it is not clear why goal-orientated functionings have to hold for any other categories of individuals. Is Boorse saying that up to menopause functioning is goal oriented but after it is simply descriptive? If it is, on what basis can he justify such a two tiered system, especially one that seems to rely on a theory of species survival?

62. What then of those other situations where human beings face a choice between reproduction or survival? For human beings, survival and reproduction can sometimes be mutually exclusive goals; one does not allow the other. Boorse responds by stating that because of the ubiquity of 'parental sacrifice in reproduction,' he expects the BST to prefer reproduction over survival. By which Boorse means that normal biological functioning is designed for reproduction and then survival. For Boorse, the processes of a women's pregnancy and of giving birth, could never be considered disease even though it could be directly undermining the survival of the woman. Normal functioning and dying prematurely from childbirth are seen as compatible notions.

63. In spite of these criticisms and a range of many others, Boorse continues to maintain that the BST still does the best job of providing a scientific and value-free conception of disease and health. He writes that the

critics of the concept of disease he has put forward are really more concerned with how to conceive of health as being more than just the absence of disease rather than his analysis of the disease concept itself. One potentially productive move towards filling the gap between his disease concept and the desire for an alternative normative conception of health, according to Boorse, is presented by Jerome Wakefield. He puts forward a theory of health/disease, where a conception of disease is a harmful dysfunction. Wakefield requires that at the foundation of the concept there is an 'objective' biological dysfunction on which stands a normative concept of harm. Without such a primary biological dysfunction one would presumably have only normative judgements or culturally relative conceptions about any biological functionings that can be perverse or eccentric. For example, having green eyes can be thought as an illness just because of cultural beliefs rather than because of any immediate harm. Relying on Wakefield as an example, Boorse reasons that his statistically normal functioning definition of disease can be the value-free concept on which can be built various normative constructs such as harmful disease, treatable disease, disabling disease or insurable disease, et cetera. Such efforts can be thought of as 'disease-plus' concepts of disease. At the least, what Boorse seems to have concluded is that he has a justifiable concept of disease while being open to how it is integrated into other theories. However, he seems to have backed away from emphasizing that his theory is supposed to be of health, not just disease.

64. **Section II: Nordenfelt's Welfare theory of health**

65. One notable aspect of the debates occurring over three decades following Boorse's publication of his theory is that most of his critics and supporters stayed entirely within the framework or terms of debate that he established. They have either sought to appraise whether his conception of disease is as value-free as he maintains, or whether it adequately takes into account the practical clinical use of disease concepts, or have put forth modified disease concepts. But the majority have kept the central focus on Boorse's concept of disease. And very few writers have attempted to articulate an alternative conceptualization of health. Among the handful of

authors who have put forward alternative theories of health, only one goes any meaningful distance beyond focusing on the presence or absence of disease.

66. Lennart Nordenfelt, a Swedish philosopher, published his complete theory in 1987 under the title, *On the Nature of Health*. (Nordenfelt, 1987) In 2001, he published another book that reviewed Boorse's 1997 rebuttal as well as the leading alternative theories of Lawrie Reznek, K.W.M. Fulford, and his own. (Reznek, 1987; Fulford, 1989; Reznek, 1995; Reznek, 1998; Nordenfelt *et al.*, 2001a) While Reznek's theory is a supplement or derivative of Boorse's theory because it holds on to the disease concept, Nordenfelt's and Fulford's theories are significantly different and referred to as 'reverse theories' of health. That is, the framework that Boorse established is to begin with a theoretical definition of disease, and then derive a values-laden, practical category called illness. In his later writings Boorse refers to illnesses as diagnostic and therapeutic abnormalities. In any case, the presence of illness is the absence of health. For Nordenfelt and Fulford, the epistemological starting point is the person's holistic/embodied functioning in the world and the presence of any impairments or constraints. They move from assessing a person's holistic functioning in the world to inside the body to identify the causes of constraints on biological parts and processes. This is seen as going in the 'reverse direction' to the prevailing method of going from internal disease to illness and then, health. The importance of this 'reverse' distinction lies in the contrasting epistemological starting points. Boorse claims an objective starting point with the focus on the normal functioning of a biological part or process, while Nordenfelt begins with a holistic position by focusing on an evaluation of the things a person is able to be and do, or ability to achieve a set of vital goals. Nordenfelt would probably argue that his theory is also objective and descriptive but that it simply starts at a different place.

67. Not surprisingly, Boorse views these 'reverse' theories as profoundly mistaken by pointing to the fact that a number of human experiences can cause symptoms of suffering or disability— such as being lovesick or feeling disappointed—but have no 'pathological' causes. One assumes that what he

means is that lovesickness cannot be a disease because it is not caused by a genetic material, organism, or harmful particle. On the other hand, individuals can present themselves at medical clinics with biological conditions such as myopia or athlete's foot which are not categorized as illnesses but nevertheless, are causally explained by genetics, organisms or materials. Furthermore, Boorse argues, a theory that starts with normatively evaluating certain states as illness and then moves on to disease is incoherent because many people do carry diseases—experience abnormal functioning of parts or processes—without the individual knowing, and even before it is recognized by a clinical physician. A disease exists in the person even when it is not recognized as an illness by the person or others. To label someone as healthy because of outward signs could be categorically wrong many times and indeed, unhelpful to the person. Starting with disease would not face the problem of mistaking a person with a disease. Yet, in challenging the starting point of visible symptoms, what Boorse has achieved is to point out the problems with both the concepts of disease and illness. He does not however, undermine the possibility of conceptualizing health separately from those two concepts.

68. Nordenfelt refers to his theory of health as a 'welfare' theory because his conception of health aims to reflect the quality of a person's abilities to achieve her vital goals. He writes, 'To characterize a human being in terms of health or illness is to describe one aspect of the 'status' of this human being, what we often call his 'state of well-being'. (Nordenfelt, 1987) He clearly aims to go beyond conceiving health as the absence of disease and towards defining positive content for the concept. It is logical, he believes, to begin theorizing with a person's experience of health, rather than a concept of disease, because health and its cognates are embedded in ordinary (non professional) thinking. And in eschewing a purely objective or scientific approach, he argues that ordinary usage of health concepts can be as accurate as other ordinary language concepts related to morality, emotions, or excellence.

69. Nordenfelt reaches the idea of health as the ability to achieve vital goals by beginning with semantic analysis to consider the terms 'health' and

'disease'; the two concepts central to the subject. He reasons that whether a theory of health is negative (absence of) or positive (with content) fundamentally turns on which of these terms is used as the starting point. Starting with disease, he argues, moves people to look inward into the parts of the individual and their biological organizational make-up. Health, on the other hand, is a term that reflects a more holistic perspective about the person. To examine how starting with the concept of disease drives the analysis inward into the body, Nordenfelt reviews Boorse's theory. He eventually rejects Boorse theory, and thus, the more general approach of starting with disease.

70. Nordenfelt finds the Boorsean theory fundamentally inadequate as a way of conceiving the practical use of the concept of health, and even inadequate as a scientific view of disease. The notion of health as being a dysfunction of a biological-part is perhaps necessary, Nordenfelt argues, but it is not a complete theory of health. More importantly, he asserts that a Boorsean conception of health does not adequately address the influence of the environment. No human action, even a biological function, happens without an environment. When raising an arm, the arm experiences resistance from the air around it, but could also face more substantial resistance such as an object, and the more complex resistance of social forces. Every human action/biological functioning happens in an environment and thus, a concept of health must reflect the interaction between the human being and the (physical and social) environment.

71. Moreover, Nordenfelt does not believe that Boorse adequately addresses external influences by stipulating the idea of a standard environment through averaging the conditions of large swathes of the globe. It is not feasible to work with such a notion of standard environment because large swathes of the planet are unfavourable environments for human beings. Pollution makes the entire planet increasingly unfavourable to human beings and the majority of people in the world live in extremely harsh physical and material circumstances. Averaging these harsh and unfavourable circumstances into statistically normal environments simply makes all of these conditions normal. While Boorse's eventual recognition of

the influence of the environment is important, Nordenfelt concludes that it is unjustifiable to develop a statistically normal environment like the notion of statistically normal biological functionings of human beings.

72. The starting point that Nordenfelt begins with is the commonplace idea that we think of health when it is not there. When there is instead, disability and pain. He chooses 'disability' as the primary concept and starting point of thinking about health rather than pain. He does this because even though pain can be due to disability, and pain can cause one to be disabled, all causes of pain are not necessarily due to disease. Pain can be caused by heartache, for example. But, as being disabled has to mean being unhealthy, in all instances that it is used, disability becomes the primary concept to begin with. From there, he makes a semantic move by turning the focus from disability, or the lack of health, into a positive notion of health as constituting 'ability plus the opportunity for action'. The Aristotelian combination of ability and a supportive environment, Nordenfelt argues, creates the 'real practical possibility of action'. He derives this concept of practical possibility of action from the philosophy of action-theory; a field which assesses ideas such as human action, causality, intent, basic action, and action-chain. Here then, lies one of the biggest differences between Boorse and Nordenfelt, as the latter aims to give an explicit and important role to the influence of the environment on the health of the individual. Health is not just a phenomenon internal to the body, within the biological structure, but also reflects the direct influence of the environment whether through physical or social forces. When a person is unable to complete a certain action because something or someone constrains their capacity of action, then the person's practical possibility for action is limited. If the ability or 'practical possibility of action' related to an important set of vital goals is constrained, then the person is unhealthy.

73. Nordenfelt defines constraint not only as the inability to complete a certain action but importantly, also includes the second-order inability to learn how to complete that action. If the second order ability is not there, then the person is genuinely unable to complete the action, and can then be considered as genuinely disabled and unhealthy. So for example, a person

who breaks a leg playing football would be temporarily considered to be disabled. However, after a period of therapy, when a person recovers their ability to use their leg, they are no longer disabled and unhealthy. However, if the injury to their leg is irreversible, they are genuinely disabled and not healthy. The ability to recognize a difference between temporarily and permanently disabled is important. Moreover, if they do not recover the use of their leg because of inadequate facilities, then they are not truly disabled as adequate facilities have not been available for this person. Their health is being constrained. Consider the alternative in Boorse's case where the individual would be theoretically diseased, and also considered ill. But in Nordenfelt's schema, they are temporarily disabled or unhealthy because of the lack of sufficient facilities. And if they choose to give up in their therapy prematurely, they cannot be considered truly disabled or unhealthy because they stopped short of recovering their ability. In general, Nordenfelt is arguing that a person should be understood to be ill or 'not in health' when their abilities to act are constrained, and when within standard/adequate circumstances, they also lack the ability to learn to overcome that constraint. One is in non-health temporarily during the period of learning to overcome the constraint, and permanently or genuinely ill or disabled if there is no possibility to learn the ability to overcome that constraint.

74. Conceiving health as an assessment of our abilities or practical possibilities of acting, Nordenfelt then asks which abilities are necessarily related to health. Reflecting on the idea that human beings are thought of as living organisms that have goals, of which survival is one among many, he focuses on the idea of vital goals. Health, he argues, is an assessment of abilities to achieve vital goals. Though ambiguous, Nordenfelt seems to be simply arguing that human beings are goal directed, and these goals can vary, but there is a theoretical core set of goals which are vital or basic to all human beings. And, in trying to identify vital goals from a 'basic needs' perspective versus a subjectively-defined goals perspective, Nordenfelt concludes that both are lacking in coherence. Instead, he argues that vital goals of a human being are goals whose fulfilment is necessary and sufficient for their welfare, or minimal happiness of the bearer. As a result, because

his conception of health reflects the ability of a person to achieve vital goals, which in turn achieves minimal happiness, he considers his theory, 'a welfare theory of health'. In formal terms, Nordenfelt's theory of health is as follows:²

A is in health if, and only if, A has the ability, given standard circumstances, to realize his vital goals, i.e. the set of goals which are necessary and together sufficient for his minimal happiness. (Nordenfelt, 1987)

75. The constraints on the ability define someone as being unhealthy or ill. The idea of 'ability' includes both the first-order ability, and a second-order ability to learn. The lack of the first order ability is necessary but not sufficient to be considered ill or unhealthy. The second order ability must also be constrained and is defined as:

A has a second-order ability with regard to an action F, if and only if, A has the first-order ability to pursue a training-program after the completion of which A will have the first-order ability to do F. (Nordenfelt, 1987)

76. And reflecting the reverse nature of his theory, Nordenfelt defines disease last as:

D is a disease-type in environment E if, and only if, D is a type of physical or mental process which, when instanced in a person P in E, would with high probability cause illness in P. (Nordenfelt, 1987)

77. While laying out a formal concept of health as the ability of a person to pursue their vital goals, Nordenfelt makes explicit the normative aspects of the concept. First, the standard circumstances in which individuals form their abilities to pursue vital goals are normatively defined. While we may be able to conceive of a person being able pursue any action given extraordinary circumstances, what we understand health to be is the possibilities of actions given particular environments. What conditions are adequate, such as the

² To account for the health of human beings that do not have recognizable intentionality when they are infants, he offers a modified theory for humans without recognizable intentions. 'Infant I is in health if, and only if, the internal constitution and development of I is such that, given standard adult support, the necessary and jointly sufficient conditions for I's minimal happiness are realized.' Presumably, such a definition would also apply to individuals without full rationality or mental capacities. (Nordenfelt, 1987)

levels of available medical facilities or appropriate material goods in order to achieve vital goals are socially determined. There cannot be one definitive environment which is necessary and sufficient for achieving vital goals. Factually, these levels have changed over time and occur in differing degrees throughout the world. What this means in practice is that a person who does not recover their ability to pursue vital goals within the socially determined level of adequate circumstances can be understood to be unhealthy.

78. Second, the choice of vital goals which are necessary for minimal happiness is also normative. What defines minimal happiness has to account for an external objective assessments of what is required as well as internal subjective components. While arguing that a subjective determination of vital goals is more likely to be correct as the subject has presumably more access to information about their welfare than the external observer, Nordenfelt nevertheless leaves open the possibility of the conflict between subjective and objective determination of the goals required for minimal happiness. He suggests that defining criteria for minimal happiness through inter-subjectively verifiable terms is one way to overcome the stand off between subjective-objective approaches. Yet, he does not go further to identify what such a balanced approach might entail.

79. Even though Nordenfelt attempts to systematically consider and address a wide range of objections throughout the process of constructing his theory of health, in the final analysis, the conception is fairly simple. A person's health reflects the person's ability to achieve minimal happiness in a particular environment. Nordenfelt does not discuss what vital goals would look like in different societies. He does not even consider whether individual survival is a shared goal across human societies. This is curious because if sheer survival is at least one shared goal across the human species, should it not be specified in the theory? Nor does Nordenfelt consider whether there are any other goals that can be considered necessary for minimal welfare or happiness across the human species. Moreover, the environmental conditions considered necessary and sufficient to achieve these vital goals are said to be relative too. But surely we can specify some minimal content of environment which human species must be surrounded by in order to

survive. It is empirically true that human beings must be surrounded by oxygen, have access to potable water, and be protected from fatal injuries in order to keep functioning. Should not those aspects at least be specified as absolutely necessary constituents of the physical environment? Nordenfelt's architecture of the argument is useful, but he stops short of filling in the architecture of the concept with any content, even uncontroversial content.

80. Despite its simple construction, the value of Nordenfelt's theory lies in many aspects. His welfare theory of health expands the frame of discussions of the philosophy of health away from focusing only on disease and onto human actions and the environment. He achieves this largely through making use of linguistic and action-theory philosophy. Semantics and linguistic philosophy is arguably necessary in reasoning about health because theories of health are projects of reconstruction of health related concepts. That is, Nordenfelt and others who seek to develop concepts or theories of health must reckon with the every day use of health concepts, and importantly, with the large body of existing medical knowledge. A theory of health must be able to reorganize and bring coherence to existing scientific knowledge on biological functioning and dysfunctions. Indeed, Nordenfelt has gone some ways towards establishing a conceptual vehicle for a health concept that does bring coherence to the health sciences. However, he stops short of doing any social philosophy. Questions such as what goals constitute minimal happiness and what is an adequate environment for achieving these goals are left completely open.

81. Referring back to Boorse, the main strength of his theory is that health as normal functioning seems plausible if we take as given that biological functioning in every human being is directed towards survival and reproduction. In Nordenfelt's theory, we understand biological functioning as necessary for health and are directed to look towards the abilities to achieve important goals in different environments for a sufficient conception of health. This may be considered to be an inadequate conception by some who believe that the most important reason for a theory of health is not for individuals to use a subjective concept of health, but for its use in social decisions. A concept of health has to be much more explicit about what

these vital goals for minimal happiness are, and how to prioritize resources, or in Nordenfelt's terms, determine the standard environment. We want a conception of health to help us determine an adequate environment rather than let the social and physical environment determine what constitutes health.

82. Because of the complete 'descriptive' capitulation to the local social environments in the determination of the content of vital goals for minimal happiness, Nordenfelt's exact formulation accepts too much social and moral relativism. For example, one of the clearest examples of where social practices and individual vital goals are not always aligned can be seen in the high levels of endemic and acute mortality of girls and women in developing countries. Aside from biological vulnerability, the social and economic practices that are locally determined, undermine the health of girls and women around the world. Poor reproductive and sexual health in girls and women because of patriarchal cultural norms leads to millions of avoidable deaths and impairments every year. Because cultural norms can conflict with the achievement of vital goals of individuals, especially of those who are socially powerless, local cultural practices should not have absolute determining power over the content of vital goals, and who can achieve them, and when.

83. A socially relative definition of vital goals has to be replaced with an ethical species-wide definition of vital goals. In searching for such a species-wide conception, the overlap between Nordenfelt's vital goals or components of minimal happiness and the idea of basic or central human capabilities, advocated by Amartya Sen and Martha Nussbaum is quite remarkable. Nordenfelt quite literally connects the debates on the philosophy of health and the capability theory through his idea of health as the ability to achieve vital goals, or practical possibility of action. The overlap should not be very surprising however, as both Nordenfelt and the CA are informed by Aristotelian reasoning on action, influence of the environment, and human flourishing. Nussbaum's CHCs, the CA, and the objections to both are discussed more thoroughly in Parts Two and Three. Here, Nussbaum's

central human capabilities are discussed in relation to Nordenfelt's vital goals understood as a capability to achieve a cluster of basic capabilities.

84. **Section III: Integrating Nordenfelt and Nussbaum**

85. Though Nordenfelt produces a framework or conceptual device for thinking about health, he leaves the content open. Health, he avers, is the ability to achieve necessary and sufficient vital goals for minimal happiness. Nordenfelt is not clear whether vital goals are states of being or actions. Nor does he make clear whether they are instrumental to or by themselves constitute minimal happiness. Nevertheless, he recognizes that there must be both objective and subjective determination of the content of vital goals in different societies. Similar to Nordenfelt, Nussbaum in developing her reasoning for the CA also criticises the 'basic needs' approach and the subjective preferences approach to determining what should be the focus of basic entitlements in every society. Though Nordenfelt was thinking centrally about health in relation to human flourishing and achieving vital goals, Nussbaum is concerned with a minimal conception of a life with dignity, and conceives it as consisting of some central capabilities. From the perspective of social justice, she argues that every society should ensure that each citizen achieves a threshold of ten central capabilities. In brief, the ten central human capabilities include 1) living a normal length of lifespan; 2) having good health; 3) maintain bodily integrity; 4) being able to use senses, imagination, and think; 5) having emotions and emotional attachments; 6) possess practical reason to form a conception of the good; 7) have social affiliations that are meaningful and respectful; 8) express concern for other species; 9) able to play; and 10) have control over one's material and political environment.

86. Nussbaum conceives the social goal to be ensuring that individuals have the capabilities—the practical possibility of achieving—and not the end achievement (functionings) unless dignity and respect of the individual are at stake. In contrast, for children, the social goal should be ensuring that they indeed achieve the functionings. Capabilities, not functionings are the focus for adults because of the necessity to respect the choices of citizens to determine their own lives, and in order to achieve overlapping consensus on

the capabilities. Nevertheless, she still allows for the possibility that some functionings may be thought of as so valuable that they will not be allowed to be neglected or fail, thus overriding individual choice. A minimum set of CHCs ensures that no matter how individuals proceed with their lives, they will always have the capabilities to revise their conceptions of plans or have an exit option from their current chosen way of life.

87. The idea of a capability reflects the Aristotelian theory of human flourishing through the simple notion that human flourishing requires a supportive environment. A person's actions are contingent on the environment. Take the simple example of a person raising their right arm. For a person to carry out such an outward movement of raising an arm requires that she has the internal/personal capacity to raise the arm, and that the environment is supportive of that act which means that at the least, there is no insurmountable barrier. Normally, our use of the word capability refers to possession of the internal/personal ability to carry out such an act. In the CA, capability refers to a person's possession of the real and effective opportunity to carry out an act. This effective opportunity or freedom is realized through varied combinations of the person's internal capacity and the nature of external conditions. We would be comfortable with the notion that a person who does not have a right arm does not have the capability to raise their right arm. However, it is also true that if someone or something is holding the person's right arm down, she does not have the capability to raise her right arm in this situation either. It is also possible that someone else raises the arm for her because she pays the person, a third party pays them or forces them do so, or for so many other reasons. Simply focusing on whether an arm is raised possibly excludes significant other information.

88. Nordenfelt relies on concepts such as actor/agent, action, supportive environment, and ability which reflect his grounding in action-theory. Interestingly, one of the novel concepts that advocates of CA have introduced in thinking about human actions, that has implications for action-theory and the related idea of freedom more generally, is that people differ in the needs for and conversion skills in order to carry out an action, or a functioning. This point recognizes that the diversity in how human beings are

'constructed and situated' can affect if and how well they are able to carry out any particular act. The surrounding conditions for an act cannot be taken for granted as having uniform effects on a person, or conversely, it cannot be assumed that any act requires the same external conditions for every person. So Nordenfelt goes far in highlighting and accounting for the influence of the environment on human action. But the capabilities analysis further elucidates the need to account for the individual diversity in needs as well as in their skills to convert their own endowments and their environment into intended actions. Action theory, in contrast, thinks of human beings as being uniform and analyzes their actions like billiard balls creating a chain of events.

89. The achievement or exercising of any single act or functioning usually requires a chain of actions that are a mix of well-being and agency functionings. Contrary to the general ethos of the CA literature, a person is not simply a container of capabilities or a producer of unidirectional functioning achievements. A person's beings and doings are inter-related and inter-active. Achieving one functioning can make the achievement of others possible or impossible. Failure to achieve one functioning can result in the failure of another functioning, or even the failure of all functionings. And any given capability can entail multiple functionings. For example, the capability to achieve sufficient nutrition entails a whole range of functionings including metabolic processes, physical functionings involved in ingesting and chewing, having physical access to foodstuffs, and so forth.

90. A second point to keep in mind is the difficulty in separating cause from effect when considering capabilities, especially being unable to distinguish between the causes of health and health itself. The concepts of capabilities and functionings are distinguished as being potential versus actual achievements. The potential or capability exists when all the causal factors for achieving the functioning are in place. A person is healthy when they are capable of achieving their vital goals. Nevertheless, the distinction between cause and effect gets profoundly complicated quickly when it is recognized that capabilities can lead to functionings and further capabilities. A capability to be healthy is really a cluster of interdependent, iterative, and dynamic capabilities and functionings achievements. Trying to separate out

a finite set of capabilities and functionings as part of the causes versus the effects of health is difficult to do. This should not mean however, that health itself should be defined only in terms of achievements because they are easier to identify. Such a notion of a capability to be healthy implicitly being a cluster of inter-dependent capabilities and functionings motivates the integration of Nussbaum's cluster of capabilities with Nordenfelt's health as abilities to achieve vital goals. The affinity to Nussbaum's conception of CHCs is due not only to just the structure, but also the content and justification.

91. Following the CA, the CH in the present argument, erases the sharp distinction between the individual and social environment because of its focus on the diversity of needs of individuals and the differing abilities to convert resources and surrounding environment. Moreover, the focus on capability reflects the recognition of how the environment can profoundly shape a person's self-perceptions of their own needs or functionings. A person who is expected by social norms not to pursue knowledge about reproduction or sexuality may also believe impaired reproductive and sexual functioning is an acceptable and expected condition. A normative conception of health must include an assessment of the surrounding conditions to counter such subjective assessments. The concern for capability also places great emphasis on real opportunity. A person may be able and willing to learn about reproductive and sexual health but if there are no sources of information available then she does not have a full CH. Sooner or later her internal biological functionings will be impaired from the restricted social conditions. For a person to be healthy, to have a full CH, there must be real opportunities to achieve health related functionings. Realizing a full CH means that internal needs, abilities to convert external resources match with external material and social conditions.

92. But the idea of ensuring a supportive environment or social conditions for capabilities should not be taken lightly. While at a certain level, it is understandable that access to food, water and shelter is necessary for the CH. It may also be easily accepted that certain liberties such as freedom of association and access to information is necessary for having a real CH.

The idea of capability becomes a lot more demanding however, when we come to recognize that the prevalence of morbidity and premature mortality among individuals is caused by social dynamics such as income inequality, job stress, discrimination, absence of social support, et cetera. Then, any efforts at ensuring the real CH must directly address fundamental aspects of social organization. In fact, within epidemiology, the individual-level biomedical model is being criticised for its inadequate accounting of social determinants of disease. Alternative models are being put forward that exhibit a systems approach where the inter-related dynamics of systems from the molecular to the body, to the family and community, to the nation and region, and to the global system, all affect the prevalence and distribution of impairments and mortality among human beings.

93. The CH then, may require the supportive social conditions to be much more expansive than anyone has so far considered. It may be quite possible that the CH of individuals in a particular location in the world is constrained more significantly by a national or trans-national phenomenon than by individual level factors. Rural to urban migration patterns due to changing economic policies may improve or destroy health capabilities more than access to healthcare. The full force of the capability perspective then is the ethical requirement to identify any and all factors that affect capabilities, and then address any constraints because of the paramount importance of ensuring that individuals can pursue their diverse plans of life. What is yet to begin are attempts to identify and measure health functionings, aside from prevalence of disease, and how to identify the necessary and sufficient balance of internal capabilities, social conditions, and agency to achieve the health functionings.

94. The CH as a meta-capability of achieving a cluster of capabilities reinforces the inter-dependence of almost all of the capabilities that Nussbaum identifies: life, bodily integrity, senses, emotions, practical reason, affiliation, other species, play, and control over environment. The CH also underlies Sen's references to basic capabilities including nutrition, movement, clothing and shelter, participation, education, et cetera. The inter-related nature of the CH is not surprising as physiological viability and

bodily functioning is necessary for the pursuit of any activity. But the current division of labour between clinical medicine, public health, and other public agencies, does not correlate with the inter-related nature of capabilities. Particularly in regard to CH, poor reproductive health functionings may be only partially addressed by healthcare as they may also require education on biology, hygiene, and sexual health, as well as access to income. Reproductive healthcare providers may be reluctant to take on all these other needs, and indeed would be justified in stating those activities are outside their mandate and expertise. The CA argues that the respect for the equal moral worth of a person requires the ethical social response to coordinate activities across these sectors in realizing the effective freedom to achieve reproductive health functionings.

95. Such an example highlights that the clinical care focus on disease has been inadequate in addressing the health needs of people. The responsibility of ensuring the effective CH of individuals may not always be with healthcare professionals. Public health professionals are better equipped to look across the natural and social sciences to evaluate the extent of the CH of individuals. The traditional focus on sanitation, vaccinations, et cetera is too restrictive an understanding of their mandate 'to ensure social conditions so people can lead healthier lives'. (Kass, 2001) Indeed, public health professionals working in areas where health capabilities fail the most address social conditions rather than provide public goods.

96. The CH is valuable to an individual as an intrinsic part of and instrumental to pursuing their life plans. But, as Nussbaum argues, the ability of individuals to have basic capabilities partially constitutes and is instrumental to achieving social justice. The failure to provide the social basis of the promotion and protection of health functionings violates the equal concern and respect for every human being. Health viewed in terms of a CH reorients viewing it as a personal advantage derived from luck, function of preference, or lastly, a matter for beneficence to making it one of the central considerations of social justice.

97. Interestingly, what all the theories of Boorse, Nordenfelt, and Nussbaum and Sen have in common, and which should be seen as

incompleteness in regard to all their conceptions of health, is that they confine their scope to the individual, whether at the level of biological parts or at the whole individual. These theories do not address the dynamics and health status of a population aside from it being made up of an aggregation of health of individuals. Boorse's theory would conceive as normal and healthy any biological state which happens across the majority of the population. It literally sums the health of individuals and produces an average value. Nordenfelt's theory evaluates an individual's ability to achieve valued goals based on a standard set by the local society. And Nussbaum and Sen focus on the individual's capability to stay alive for a normal length of life, and be free from (clinical) disease. However, the health of an entire population can be determined by phenomena occurring beyond the scope of an individual.

98. This chapter has reviewed the biostatistical theory of health, Nordenfelt's welfare theory of health, and lastly, argued that Nordenfelt's conception of health can be made more defensible by replacing the vital goals with central human capabilities, such as those put forward by Nussbaum. Bringing together Nordenfelt's analysis with that of the CA has benefits for both. For Nordenfelt, his definition can become defensible by incorporating an idea of basic human capabilities and justifiable through freestanding ethical reasoning used to identify them. For the CA, Nordenfelt provides a link to the philosophy of health debates. Also, the problem with ranking the basic capabilities as well as the impossibility of separating out a capability to live a long lifespan from a CH gets solved. The problem of the inseparability of health from well-being also is solved. Nordenfelt provides the framework to argue that a CH is the ability to achieve all of the basic human functionings. That is, health is not just instrumental to other functionings; it is an evaluation of the ability to exercise a set of basic functionings. Rather than separate out a core set of physiological functionings as being health functionings, Nordenfelt helps to define health as the a set of basic capabilities that span the neediness, sociability and reasoning capacity of the embodied human animal.

99. The main points to take away from this chapter are that the health as a concept becomes coherent when conceived as a capability. And that capability is a capability to exercise or achieve a cluster of further capabilities and functionings. The process of rejecting Boorse's 'objective' and 'naturalistic' theory of health shows not only the ambiguity of the notion of disease that points to abandoning that concept, but also that disease and health are not mutually encompassing concepts. Furthermore, integrating the arguments of Nordenfelt and Nussbaum provides us with both a structure and content of a capability to healthy. Nordenfelt provides the structure of a health as the ability to achieve vital goals for minimal happiness that includes both subjective and objective content of vital goals. While Nussbaum provides the content of the vital goals in the form of ten central human capabilities. The breadth and extent of these capabilities reflect a conception of human dignity that encompasses the neediness, sociability and ability to reason in pursuing a life plan.

Chapter 2: Theory of Causation and Distribution

100. As stated in the Introduction, a theory of health should at least have a coherent conception of health, and the capacity to explain how it is created and distributed among individuals and groups. Chapter 1 put forward a conception of health as the capability to achieve a cluster of capabilities and functionings. Such a conception is more coherent than the BST of disease as well as other theories that are derived from it. However, rejecting the BST of disease has implications for its counterpart theory of causation and distribution of disease. The 'biomedical model' of disease causation and distribution that evolved from the classic, late 19th century 'germ theory' of infectious disease recognizes three types of causal factors. These include individual biological traits, exposures to external particles, and behaviour. The tools developed in the late 19th century to observe and isolate micro-organisms revolutionised the methods to contain communicable diseases in individuals and populations. However, the increasing recognition of non-infectious causes of chronic and degenerative conditions required transforming the very productive agent-host-disease causation model.

101. A new model was developed to account for the independent and interactive influences of genetic endowment, exposures to materials, and behaviours in the production of disease—in the BST sense of the term. Common metaphors for such a multi-factoral model of causation include the 'web of causation,' or the 'multi-factoral causal pie'. However, despite the need to expand the number and diversity of causal factors for any given chronic and degenerative conditions, the focus remained on individual level, proximate, and objectively ascribable factors.

102. Rejecting the BST of disease that is prevalent in the health sciences does not automatically require also rejecting its counter-part biomedical theory of disease aetiology and distribution. That is, disagreements about

the ontology of disease and health do not necessarily carry over to disagreements about how disease and health are created and distributed. Take, for example, the ongoing debates in health economics about the merits of various health measurements. Health economists have largely circumvented the debates in philosophy of biology and medicine while developing an array of measurements of health. Largely skipping over the meaning of disease, most of the health metrics conceive of health as time spent alive without constraints on physical functioning. Yet, while the debates on methodology and content of each proposed measurement are wide ranging, there is little scrutiny of the prevailing explanatory frameworks for the causation and distribution of health functionings and their constraints (i.e. death and disease).

103. Conversely, as the following discussion will show, disagreements over the sufficiency of the individual-level, biomedical model of causation and distribution of disease do not evidence any disagreements over the concept of disease. For instance, the often contentious debates about the scientific objectivity of recognizing social determinants of disease do not reveal any questioning of the BST concept of disease. Even the most strident advocate of social epidemiology still largely accepts a central focus on disease. Given that in normal clinical practice, the overwhelming concern is with identifying and mitigating the effects of disease combined with a widely recognized global catalogue of identifiable diseases, taking time out to question the logic behind such a list or the notions of disease and health may seem unwarranted or wasteful.

104. However, along with the BST of health, the biomedical model of causation and distribution of disease must be rejected, or at least demoted, because it is inadequate as a general theory. It is significantly constrained in explaining the causation and distribution of chronic and degenerative conditions. In addition to being unable to fully explain the causes of constraints, the biomedical model is even more limited in identifying the causation and distribution of health, even when seen as the statistically normal functioning of biological parts and processes. The possibility of it accounting for or underwriting the idea of a CH seems even less likely.

105. Three specific limitations afflict the individual-level, biomedical model of disease causation. The first is the questionable model of 'scientific' causality that is used which excludes the recognition of social processes and distal factors as part of the causal chain in production of disease. The second limitation is the model's capacity to recognize only limited types of distribution patterns of disease/health across human beings. Lastly, an explanatory model with restricted power and with limited capacity to recognize distribution patterns will produce only partially informed and not fully effective social responses to disease/health concerns.

106. A counterpart causation theory to the conception of health as a capability does indeed require demoting the narrow, biomedical model of disease because of its inherent limitations. It must be replaced with a theory that is more robust in explaining the causation and distribution of health capability. The one presented here is able to account for most recent work in epidemiology which identifies a breadth of social determinants and borrows the analytical framework used to model the causes and distribution of endemic and acute malnutrition.

107. To preview, a theory of health causation and distribution should be able defensibly to allocate responsibility between human biology, external social and material environment, and individual behaviour. These three factors are all encompassing determinants of the length and quality of life. While social epidemiology has expanded the scope of environmental determinants to include social processes, the 'entitlement analysis' of famines provides a conceptual framework to fully analyse causality and distribution of the CH. A CH and its constraints can be identified by the combined result of interactions between individual biological endowments, external material and social conditions, the person's abilities to convert their own endowments, material goods and social conditions into functionings.

108. Seen against this comprehensive analytical framework, the biomedical model's reliance solely on healthcare goods and services comes into clear relief. Healthcare is intended to meet biological needs, but it constitutes only one component in a 'multi-causal pie' producing an individual's health capability. Healthcare may satisfy urgent needs to induce

or protect biological functioning but the individual may still not be able to achieve the cluster of capabilities and functioning if the other causal components are not conducive. Unless the term healthcare is stretched to encompass all material and social conditions, what is normally known as healthcare are just some necessary but not sufficient material good for an individual to achieve a cluster of capabilities and functionings. In contrast, ensuring an individual has sufficient and equitable health capability entails possibly intervening in their biological functioning, the material and social environment, and/or their conversion skills. The biomedical model's focus on healthcare, and ensuring that biological parts and processes fall within a statistically normal range, is really thus only a partial theory of health causation that is applicable only some of the time.

109. The following two sections review the evolution and content of extant theories of disease causation and distribution. An argument is then put forward for an entitlement theory of health causation and distribution that is able to account for all the disparate theories, in addition to the prevailing biomedical model.

110. **Section I: Causation and distribution theories.**

111. Towards the end of 1968, the highest ranking government health official in the United States, the Surgeon General, stated that it was 'time to close the book on infectious diseases'. Articulating the mood of the times, he argued that all infectious diseases and effective methods to contain them had been identified. The spread of infectious diseases in developing countries was thought to be due to abject poverty similar to the situation of pre-industrialized Europe and America. The focus of health sciences in the second half of the 20th century was to be on non-infectious diseases such as heart attacks, cancers, and strokes as these were now the largest cause of premature mortality and impairments. In moving away from infectious diseases to a growing concern over chronic diseases, epidemiologists developed a variety of methods to identify the aetiology of disease such as case-control methods, cohort studies, and more recently, using computers to carry out complex statistical calculations. The model that has been the basic paradigm since the first text books on epidemiology were published in the

mid 20th century is that of 'multiple causation'. Evolving from a model of single causative agent and host model based on the germ-theory, the multiple causation model hypothesizes a chain of different factors including exposure to a single or multiple hazardous materials, genetic predispositions, and behaviours. (MacMahon, 1960; Krieger, 1994)

112. The first epidemiology textbook published in the United States in 1960 proposed understanding the multiple factor aetiology of disease in the following way. A linear, causal chain of multiple factors does not take into account the complex precursors to each component of the chain, and that the precursors and chain components might have overlap or interactions creating a variety of direct and indirect effects on the progression to disease. The authors advised eschewing the old notion of a single agent or a serial chain of events causing disease. They advocated a more sophisticated understanding of causality of disease, termed the 'web of causation'. The web model, argued the authors, also benefited from not having to prioritize different causal factors, and focused instead on identifying the determinants that are both necessary for disease and most amenable to intervention. The epidemiologist's objective is to identify the most proximate link in the web to the disease in order to cut the links. (MacMahon, 1960)

113. Nancy Krieger argues that this web of causation is the most fundamental operating metaphor in the epistemology of epidemiology. And importantly for Krieger, the metaphor and the consequent methodology ignore the primary sources of the causal factors. In an influential essay she asks, 'Where is the spider?' The web of causation model carries with it a theoretical framework that subscribes to biomedical individualism, referred to as the biomedical model. Such a model emphasizes proximate biological determinants of disease amenable to intervention through the health care system; considers social determinants to be second order factors and possibly, irrelevant; and lastly, sees the population distribution of diseases as simply a sum of individual cases. 'In this view, disease in populations is reduced to a question of disease in individuals, which in turn is reduced to a question of biological malfunctioning,' say Krieger. (Krieger, 1994: p892) The

biomedical view of population health then is simply the aggregate picture of biological malfunctioning.

114. This model of biological individualism is fundamentally shaped by the scope of and evolution of the practice of epidemiology in the United States throughout the later half of the 20th century. Meanwhile, in the United Kingdom, where epidemiology first began and many infectious agents were first identified, the concern over the cause of the distribution patterns of mortality and impairments had as much, or greater, prominence than the aetiology. By the mid 20th century, the dramatic improvement in life span and morbidity that was markedly visible at the turn of the century was expected to continue. The progress was measured most directly in the decennial censuses using basic demographic statistics. The continued higher mortality rates among the poorer sections were attributed to a time lag in the effects of better conditions. Unlike the United States, the government of the United Kingdom officially recognized and began analysing health progress by socio-economic classes as a social category starting in 1913. It has been argued that class was not similarly recognized in the United States because of the political ideology calling for a classless society. Moreover, the overwhelming disparity between whites and blacks produced the dominant social categories of social analysis. In the United Kingdom, social position or class was defined by groupings of occupations which were said to reflect not only income, but also similar culture and social status.¹

115. Like in most other industrialized countries, the leading causes of mortality and impairments in post World War II Britain were degenerative conditions of old age and chronic conditions such as heart disease, cancers and strokes. By the 1960s, what is often referred to as the mortality or epidemiological transition, the transition from high mortality rates due to infectious diseases, to lower mortality rates due to chronic conditions, had become well established. The profound transformation in the levels and causes of mortality and impairments began in the mid-19th century through Edwin Chadwick's initiatives including the containment of infectious diseases

¹ Simon Szreter has reviewed the coherence of the occupational grade class identification system and the influence of the eugenics movement in the classification system. (Szreter, 1996)

through covered sewers, waste collection, and provision of potable water. Such programmes worked in conjunction with an overall reduction in malnourishment, improvement in working conditions, and more efficacious control of food handling. (Caldwell, 2001) Countering the view that these dramatic changes were inevitable due to industrialization, recent historical research presents evidence that social movements played an integral role in the expansion of scope and geographical coverage of government health institutions and policies. (Szreter, 1996; Szreter, 1997) In any case, by the mid-20th century, in addition to the dramatic decrease in overall population mortality rates, the causes of mortality and morbidity due to infectious and communicable diseases were now replaced by age-related degenerative conditions and chronic conditions with largely unknown causes. That is, the constraints on biological functioning were recognizable but their full aetiology was not. Despite the lack of full knowledge of causes, rhetoric about individual responsibility and making sound choices for one's own health became more prevalent, particularly through the UK Labour government's health policy papers in the 1970s.

116. By the 1970s, however, the persistence of higher rates of premature mortality and preventable impairments among the lowest socio-economic classes as evidenced by the mortality statistics of the decennial censuses could no longer be explained away as simply due to a time lag. Even after decades of government welfare programs and the creation of a National Health Service, the persistence of higher premature mortality rates (and disease precursors) in the lower social classes moved the British government to establish a Working Group on Health Inequalities in 1977. The remit of the working group was to review the aggregate differences in health achievements between classes, evaluate possible causes, the implications for government policy, and identify areas and questions requiring further research. The final report of that committee released in 1980, known as the Black Report, has proven to be a watershed event for initiating public debate as well as a new area of health research on the causation of the (unequal) distribution patterns of life-spans and impairments across social groups. (Black *et al.*, 1992; Macintyre, 1997; Whitehead, 1998) That is, the Black

Report emphasized the causation of the distribution patterns of premature mortality which was informed by the aetiology of proximate causes of mortality.

117. Despite the rhetoric of 'health,' in order to avoid the difficulties with the complexity of the concept, the working group focused only on mortality rates. They simply took viability or ability to stay alive as constituting what Sen has separately described as the 'irreducible absolutist core' of the idea of health. (Sen, 1984b) Thus, in actuality, the working group evaluated the unequal distribution of mortality across groups stratified by age, sex and socio-economic class. Inequalities in health meant inequalities in length of life spans. Another notable feature of the reasoning of the working group is that as a result of the central concern for the causes of the distribution patterns, the distinction between the causes of distribution and the aetiology of the condition causing mortality was not always clear. But the blame for such confusion between causation and distribution does not wholly lie with the working group. The epistemology of causation and distribution in epidemiology is notoriously difficult.

118. Theoretically, a non-random distribution of mortality occurs in a pattern linked to a feature relevant to the causation of mortality. For example, the higher mortality among older age groups can be explained by the causal factors linked to older age. However, when there is no prior knowledge of the possible causal factors, any pattern can be a potential non-random pattern of distribution. For example, an uneven distribution of mortality across individuals with different astrological signs would seemingly raise the possibility of a causal factor linked to astrological signs. If there were no link, in a large enough population the disease would be evenly distributed across all signs. While astrological signs may be easy to dismiss, it is much harder to dismiss other causal phenomena that may sound more plausible. The biomedical model constrains the possible causal factors to genetic traits, exposures to harmful particles and behaviour. And thus, it can only recognize patterns of distribution along biological features, exposures, and behaviours. Even then, many variations of experimental and observational studies are carried out to test hypotheses regarding these

factors. The biomedical model's inability to explain the obviously patterned distribution across socio-economic classes, however, compelled the search for alternative causal explanations. The working group thus focused on causes of distribution patterns that were also previously linked to aetiological theories of mortality and impairments.

119. The Black Report is a seminal publication in the history of epidemiology for establishing the legitimacy of recognizing causes that are both one-step removed from proximate biological causes of mortality/disease and which also determine the social distribution patterns. The causes of the proximate causes could explain both causation and distribution of mortality and impairments. The contemporary controversies over scientific objectivity of social determinants and social epidemiology arise from this first and second-order distinction in the causal chain of disease. Social determinants are environmental factors one or more steps removed from the proximate, individual-level causes of abnormal functioning of biological parts and processes. The debate is over whether there exists a defensible causal structure between social determinants and proximate determinants, and whether the scope of epidemiology and health sciences should extend beyond the proximate causes including individual biology, exposures, and behaviour. The two fold fear is first, that it is bad science to go beyond first-order causal factors, and second, that going beyond proximate factors means that epidemiologists and health scientists/providers will have to become 'social engineers'. (Rothman *et al.*, 1998)

120. **Section II : The Black Report and Whitehall studies**

121. The working group reviewed four categories of explanations for the persistence of higher mortality/ill health among the lower classes. The explanatory categories encompassed the full range of extant aetiological theories ranging from the biological, behavioural, and environmental. The categories of explanations examined by the working group also showed that the core debates on the aetiology and distribution of ill health in the late 20th century were remarkably similar to those in the late 19th century. In the previous century, supported by various nascent forms of empirical analysis, higher rates of premature mortality and impairments among the lower social

classes were attributed to a range of factors including inherent biological characteristics of individuals (genetic quality), their volitional behaviours (culture of poverty), or factors in the environment shaped by social and economic structures. Aetiological theories which concentrated on intra-individual biological pathways such as the miasma theory—which was the motivation for Chadwick’s public sanitation programs—or germ theory, both competed with these other explanations. The spectacular success of germ theory in reducing mortality at the turn of the 20th century fully undermined miasma theory, and muted advocacy for the alternative theories. However, the persistence of premature mortality in later 20th century reinvigorated the theories posited in the previous century even if they reappeared in slightly different guises. And, the issue at stake in the debates seemed to be almost identical to the one prior to the control of infectious diseases. The question remained why do more members of the lower socio-economic classes die younger and experience more disease?

122. The working group organized causal explanations into four general categories:

- 122.1. Artefact explanations. These explanations asserted that there was no relation between social class and health, but that they were simply measurement errors due to the changing population structures.
- 122.2. Theories of natural or social selection. In this conception, the inability of the poor to stay alive or free from disease indicated their weaker status as human organisms, and thus determined their lower social class position. A less stringent hereditary/eugenics position was that people who are ill or disabled invariably end up in occupations associated with the lower classes.
- 122.3. Materialist or structural explanations. These theories posited that economic and associated socio-structural factors determined physical susceptibility as well as exposure to hazards in the housing and work environment. Poverty in terms of material deprivation directly resulted in premature mortality and morbidity.

122.4. Cultural/behavioural explanations. The last category asserted that the unthinking reckless and irresponsible behaviour of individuals such as alcoholism, and poor morals were predominant in the lower classes, and associated with high mortality and morbidity.

123. After three years of deliberation, the working group concluded in the Black Report that the reason for the social gradient in mortality was largely due to the 'material and structural' explanations. The recommendations for addressing the social gradient emphasized the role of health services sector, and also recommended a broad anti-poverty strategy. Sarah Macintyre writes that the debates ensuing after the Black Report suggest that though the material and structural explanation was identified as the main cause, it was without sufficient justification or explication of the causal pathways. She further argues that this category was selected mainly because it was the only category of explanation left after dismissing the three other alternatives. Nevertheless, Macintyre maintains that the Report's recommendations for improving education, addressing health damaging behaviours, and helping disabled individuals reflected the committee affirming a 'soft' version of each of the other explanations as well. (Macintyre, 1997)

124. However nuanced the recommendations of the working group may have been, the general conclusion that significant public resources were needed to address the needs of the poor was not well received by the new Conservative government. The government attempted to suppress the Black report in a variety of ways. The report's conclusions, nevertheless, were picked up by the media, the academic community and the shadow government. As a result, the report's profound impact on the scope and nature of public debate, health research and poverty alleviation continues to the present.²

125. The recommendation for more publicly funded anti-poverty programmes as the most effective response to the persistence of high mortality and underlying impairments among the lower classes initiated

² Margaret Whitehead's ten-year follow up report was also downplayed by the Conservative government, but this report too managed to receive significant public attention. (Whitehead, 1998)

acrimonious public and academic debate. Any critique of the material/structural explanation was received as voicing support for eugenics, moralism, or atomistic libertarianism that lurked beneath the other abandoned explanations. Nevertheless, the actual pathways by which poverty, understood as material deprivation, leads to disease in individuals and classes were never explicitly specified. Identifying the precise role of poverty as a pathway to mortality instigated still further debate about the meaning of material deprivation and its causal relationship to mortality and impairments. One could either follow the line that absolute material deprivation causes ill health or alternatively, that relative material deprivation causes ill health.

126. Absolute-level causation entails examining factors such as malnutrition, reduced biological and mental resistance, lack of healthcare goods, and poor housing. Relative-level causation is pursued by examining the effects of having insufficient resources needed to be able to carry out one's life commensurate to a particular societal environment. An absolute-level view is correct in identifying minimum requirements according to some objective standard. Among absolute level adherents, the debate is often over the level of the threshold. However, the absolute-minimum level approach does not fully take into account the context in which the individual is living. (Vagero *et al.*, 1995) The relative-level view of addressing mortality levels suggests that different amounts of resources are needed to stay alive and avoid morbidity depending on the varying requirements of particular environments. These debates over the absolute versus relative levels of material resources as the causes of the unequal social distribution pattern of mortality transmuted into more general debates about the framework and purposes of poverty alleviation. (Sen, 1984b) In any case, while absolute needs for material goods cannot be denied, recent research by Richard Wilkinson shows that relative income inequality within and across rich countries is also correlated with lower overall health achievements as well as all major social problems. (Wilkinson *et al.*, 2006) However, the exact pathways between income inequality and the constraints on biological functionings are still not yet clear.

127. The Black report's conclusion that absolute material deprivation is the dominant cause of unequal social distribution of mortality and impairments was significantly challenged by the growing influence of findings from a 1978 study of the health of British civil servants, known as the Whitehall Study. What started out as a conventional study of the risk factors for heart disease among a large, defined, and accessible population of research subjects produced startling results. Michael Marmot and colleagues showed that, despite the fact that civil service employees across all grade levels were all above the threshold of poverty, there was a clear step-wise gradient in health measurements linked to the rank of employment. Starting from the bottom grade, each rank of employees had better health profiles than the rank below. Initially this pattern was thought to be only associated with the risk factors for and prevalence of heart attacks. But the distribution pattern was confirmed across all diseases including gastrointestinal disease, renal disease, strokes, accidental mortality, violent mortality, and cancers that were and were not related to smoking. (Kreiser, 2002) Subsequent follow up studies, ten and twenty-five years later, which also included women, showed that the step-wise pattern remained. (Marmot *et al.*, 1997; Marmot *et al.*, 1998) This identification of step-wise gradient in health measurements according to social position, here considered to reflect civil service grade of employment, consequently motivated a tremendous amount of research. That research overwhelmingly shows a socio-economic gradient in health measurements across the entire population in every industrialized society. (Macintyre, 1997)

128. The Whitehall studies clearly established that relative social position affects health outcomes. There would not otherwise be a clear and consistent social gradient across the wide spectrum of constraints on health. The studies also proved the more general point that second order, causes of proximate biological causes of mortality could be identified and measured. Furthermore, the research suggests that the social gradient in mortality reflects an individual-level, psycho-social mechanism mediating between social conditions and the production of impairments in an individual. However, it was uncertain from the initial study whether the social gradient is

created by one monotonic social process affecting the entire population or through different processes occurring at different grades in the social hierarchy. The studies, however, unequivocally showed that aside from the uncontested causal role of absolute material deprivation on mortality, health achievements were not distributed according to the 'haves' and the 'have-nots,' but distributed in a continuous social gradient. Furthermore, subsequent studies which took into account individual behaviours such as smoking and diet were also able to show that volitional behaviours could not explain the distribution. In sum, the Whitehall studies were able to establish clearly that the classic biomedical model's causal factors of biological endowment, individual behaviours, and exposures to harmful materials could not explain the step-wise gradient, nor could the gradient be dismissed as a random pattern. (Marmot, 2004; Marmot, 2006)

129. Marmot contends that psycho-social processes, such as the workplace environment studied in the subsequent Whitehall studies, produce the continuous social gradient in mortality rates and impairments. Various concepts pertaining to an individual's 'control,' 'agency,' and 'dignity' have been suggested as aspects of the workplace which differ according to employment grade, and that may be correlated to the gradient in health measurements. Research is ongoing to define such concepts. Whether such workplace features can be extrapolated to outside the workplace such as the home and community is still being considered. Such research is limited at present because there is no epidemiological framework that can sufficiently integrate both the biological factors and these proposed, psycho-social processes. Concepts such as dignity or agency are not easily amenable to being translated into causal categories similar to exposures, behaviours or genetic endowments. A new theoretical framework is needed which can account for both proximate and distal factors as well as biology, exposures to material and social conditions, and individual behaviours. And such a theory must also be able to explain the distribution of health and its constraints.

130. **Section III: Causation theories and social epidemiology**

131. The step-wise social gradient in health achievements has been taken up with great interest by American epidemiologists. They come from a tradition of understanding poverty in terms of absolute deprivation, and the dominance of inequality between whites and blacks in the American context precluded the thorough study of health differences across the entire socio-economic hierarchy. Furthermore, American epidemiologists were and continue to be driven to understand the step-wise social gradient through an individual's psycho-social, biological, or neuro-endocrine-immunological processes. That is, the focus on social determinants as causal mechanisms of mortality and impairments has priority over examining their role in the causation of unequal social distribution of health achievements. (Macintyre, 1997) The field of social epidemiology in the United States thus, has largely been framed as a quest for understanding social determinants of disease, with it being somewhat implicit that social distribution patterns are a secondary consequence of those social determinants. Inequalities across social groups are of epidemiological concern only if the stratifying social feature is related to a causal pathway. Without a link to a causal mechanism, unequal distribution of mortality and impairments fall outside of the scientific practice of epidemiology. That is, the unequal distribution of a disease across men and women would be considered outside the scope of epidemiology if the causal factor of the disease had nothing to do with gender or sex.

132. In pursuing the identification of causal pathways between social determinants and inequalities in health constraints across individuals and social groups, the classic, biomedical model of disease causation has been overlain or expanded to include social determinants. The social environment is seen as the missing 'spider' in the web of causation. Social determinants influence genetic endowments, other social processes that work through psycho-biological pathways, and determine the exposures to material goods as well as shape individual behaviours. In essence, all epidemiology is now considered to be social epidemiology. While this may be true, the diverse range of social determinants theories have been divided into various

categories. They are segmented into psycho-social theories, political-economy theories, income inequality theories, social capital theories, and life-course theories. Before presenting an argument for how the capability device and the entitlement analysis can integrate all these various types of social determinants, the next section briefly reviews various types of social determinants theories.

133. **Psycho-social Theories**

134. The social gradient in health among British civil servants established that the influence of the environment was no longer a question simply about material conditions. Environmental influences also had to include other social factors such as features of the work environment, social circumstances outside work, and social context of health affecting behaviours. Marmot suggested that features in work environment that impacted health included such things as how much control individuals had at work, how fairly they were treated at work, and how interesting they found their work. (Kreiser, 2002) Prior to the Whitehall study, Marmot and Leonard Syme, one of the pioneers of social epidemiology and his professor at Berkeley, had examined the possible influence of social factors on health by comparing the health status of Japanese male immigrants to the United States and similar men residing in Japan. The research finding showed that Japanese immigrants took on the disease profile of the surrounding American population. More specifically, those immigrants that were more assimilated experienced more of the health constraints affecting the majority population, proving that health profiles were not purely determined by genetics, or individual behaviours. (Marmot *et al.*, 1976)

135. Prior to the Whitehall study, two other significant research conclusions on the effects of social factors had been established in the United States. In what is regarded an important milestone in social epidemiology, John Cassel presented a lecture to the American Public Health Association in 1976 on the need to address the psychosocial factors that decrease biological resistance through better identification and categorization of factors at the social level rather than at the individual. (Cassel, 1976) Cassel stated that two important findings regarding the body's responses to

stressors needed to be recognized. First, biological processes that determine susceptibility to disease were weakened when an actor does not perceive evidence that her actions are resulting in the intended consequences. The second finding was that the biological responses to stress inducing situations were ameliorated by the strength of the social support provided by other people considered most important by the individual. Following Cassel's lecture, the ensuing debates continue to consider a range of issues including whether animal research from which these psychosocial effects were identified were applicable to human beings; if it is possible to carry out ethical experiments on humans to test these ideas; to what extent the biological mechanisms had been sufficiently specified; and whether stress creates a general susceptibility or if particular biological responses to stress lead to susceptibility to specific diseases. In any case, Cassel's lecture, as well as the work of Marmot and colleagues, point to various psycho-social determinants such as agency, control, stress, and social support that need to be further conceptualized and researched.

136. **Ecological Theories (income inequality/ political economy)**

137. In separate research carried out in the 1980s which later influenced and complemented studies of psycho-social mechanisms, significant evidence was marshalled to show income inequality was correlated to higher levels of social inequalities in health. Above a certain threshold level of national wealth or Gross National Product (GNP), wider average-income differences between classes are associated with a steeper gradient in health differences and higher, overall mortality for the entire population. (Wilkinson, 1997; Kawachi *et al.*, 1999; Wilkinson, 2000) Below this threshold national threshold there was no correlation. This would indicate that below a certain threshold absolute material deprivation has more significant influence on mortality and morbidity.³

³ While absolute deprivation as being a cause of poor health outcomes is uncontested, there is some research that even underneath such a GNP threshold, the amount of social spending on poverty alleviation and public health goods and services improves health outcomes sometimes better than in rich countries. This would temper the conclusion that inequality at the bottom has no effects. See (Sen, 1999c)

138. Across a number of industrialized countries, and within regions of countries, research has confirmed that the steepness of the health gradient is associated with level of income inequality. Richard Wilkinson argues that the effect of income inequality lies first in the psycho-social effects of being of lower social status, experiencing subordination, or denied respect. Status as well as increasing income inequality affects social standing and in turn, leads to biological processes in the individual such as chronic anxiety, permanent increases in stress hormones such as cortisol, more atherosclerosis, and poorer immunity. The total result of these processes that occur through psycho-biological pathways is said to be analogous to rapid aging. (Kawachi *et al.*, 1999) (p493).

139. Wilkinson concludes that the second effect that the research shows is that income inequality dissipates social cohesion. Increasing inequalities in income change the nature of social relations through decreasing levels of trust, increasing hostility and violence, dissipating social networks, and increasing domestic conflict among other things. The consequent 'culture of inequality' is starkly compared to the income egalitarian and cohesive community identified by Robert Putnam in his influential research on civic society in regions of Italy. Bringing together Putnam's sociological analysis on social capital and Wilkinson's income inequality thesis, a number of researchers examining the association of the levels of trust, levels of hostility, and rates of homicide and violent crime have found a strong relationship to income inequality. (Kawachi *et al.*, 1999)

140. **Political economy**

141. Aside from methodological critiques, a number of alternative explanations have been posited for the effects of income inequality on the causation and distribution of premature mortality and impairments. First, it is averred that a larger force such as broader social ideologies and cultural behaviours determine structures that result in both income and health inequalities. David Coburn, for example, argues that it is not simply income-inequality in a vacuum but the dominant ideology of neo-liberalism that is causing both the income inequality and health inequalities. (Coburn, 2004) Vincent Navarro maintains that politics is directly implicated in the increasing

health inequalities through identifying the fluctuations in health inequalities according to the political regimes in power. Looking specifically at infant mortality rates from 1945 to 1980 in developed, capitalist countries, Navarro concludes that governments representative of labour movements and social democratic parties committed to redistributive policies showed better rates than other more libertarian governments such as the United States and United Kingdom. (Navarro, 1993; Navarro *et al.*, 2001)

142. Leonard Syme offers more theoretical alternatives to Coburn and Navarro's empirical explanations for the income inequality and health inequality association. (Syme, 1998) He hypothesizes that the well off may be simply doing much better than the worse off given that it is much harder for those at the bottom of a steep social hierarchy to achieve as much, if at all, compared to those at the top. Simply put, improved opportunities for health achievements accrue to those who are able to best take advantage of them. They have more agency. A second possible explanation is that the richer can simply acquire many more material goods that help them achieve better health. And a third explanation, based on animal studies, suggests relative deprivation is rooted in evolutionary biology. It posits that individuals in whatever environment will see themselves as having less and achieving less than those with more of whatever is the valued asset, whether it is income or bananas. Hierarchy will always be present and therefore, so too will the consequent social gradient in health constraints. Syme's final hypothesis is that individuals don't mind being worse off if everyone is considered to be in the same situation, but are troubled when they believe that others are better off through unfair social arrangements. Steep income inequalities cause biological responses because they are seen as unfair social conditions.

143. **Social capital and support.**

144. The overlap between Wilkinson's thesis on income inequality and social cohesion and Robert Putnam's recent work on the benefits of 'social capital' has led some researchers to examine more specifically the association between social cohesion and health outcomes. Income inequality is replaced by social cohesion as the primary causal factor in

health inequalities. Putnam refers to social capital as the connections among individuals in the form of social networks and the norms of reciprocity and trustworthiness that arise from them. From analyzing the historical and social changes in regions of Italy over a twenty year period, and subsequently in America, Putnam argues that 'generalized reciprocity' within a small social group, community or an entire society can generate great social and economic benefits. (Putnam *et al.*, 1993; Putnam, 2000) Within social capital, Putnam identifies two different types of relationships. 'Bonding capital' refers to relationships among social groups made of individuals of similar background, and thus trust and reciprocity occurs without hesitation. 'Bridging capital' is relationships among individuals who may not share any common background characteristics but come together to undertake cooperative activity. In reviewing Putnam's theory, particularly in relation to health inequalities, Szreter argues for a greater inclusion of the role of the state and also identifies the importance of what he terms 'linking capital,' or the relationships between significantly unequal individuals and civic organizations on the one hand, and government institutions, on the other. (Szreter, 2002)

145. Social capital analysis as a model for community development has become widely prevalent across many disciplines and institutions. Despite the rapid dispersion of the idea and the application of the concept to health inequalities in particular, Macinko and Starfield conclude that there does not seem to be a consensus on the nature of social capital, its appropriate level of analysis, or the appropriate means to measure it. (Macinko *et al.*, 2001) Wilkinson's thesis offers a pathway between income inequality, social cohesion, and the impact on psycho-biological processes. But when starting at the community level with empirical measurements of social cohesion, and without any further evidence of how social cohesion is increased or decreased, it has proven less useful in explaining the aetiology or distribution of disease. Interestingly, what social capital and health research has established is the idea that a particular community has health effects that can be observed at the same level of analysis as that of an environmental exposure to a particular type of pollutant. Various studies have shown how

cities and neighbourhoods have identifiable effects on the health constraints of individuals. (Subramanian *et al.*, 2004)

146. **Life Course approach:**

147. Though social capital theorists have focused on various aspects such as trust and reciprocity among individuals and networks, Wilkinson contends that the effect of low social status or acute subordination resulting from income inequality and the existence of egalitarian relationships, in the form of ideal friendships, can have a profound effect early on in the life course. The transference of low status of parents to the development experience of the child, and the ability of the child to establish friendships during the early years of life, greatly modulates the psychosocial effects of income inequality later in life.

148. In a similar vein, more biological and epidemiological evidence has been forthcoming that the health constraints experienced by adults may be significantly pre-programmed in infancy as well as in-utero. Barker and colleagues aver that a biological imprint on the human body occurs in the foetal and infant period impacted by the mother's health, which is particularly vulnerable in contexts of material deprivation. Low birth-weight and retardation of the foetus is linked to higher risk of adult onset of respiratory disease, diabetes, heart disease, stroke, and certain cancers. (Vagero *et al.*, 1995) Barker writes that the geographical and social inequalities in mortality rates and impairments across the United Kingdom could be explained through the experience of poverty by mothers. Other researchers have subsequently studied non-biological pathways that result in adult health constraints. (Vagero *et al.*, 1995) For example, social disadvantage early in life results in a series of denied opportunities—such as schooling, employment and marriage—and other negative experiences that cumulatively combine to produce disease starting in middle age. In a similar vein, Davey-Smith has argued that income inequality does not produce significant and immediate health conditions but instead, a life-time of experience of low social status leading to an accumulation of biological effects that eventually lead to premature mortality and visible constraints in adulthood. (Krieger *et al.*, 2004)

149. Barker's studies on early biological programming have opened an area of research on the life-course perspective on health. However, his work has also been widely criticised by Marmot and others. (Vagero *et al.*, 1995) Marmot argues that examining the mortality rates of the former Austro-Hungarian countries after World War II shows remarkable differences. If indeed, there is biological programming in-utero, there would be a cohort effect across the now independent countries. But there is not. Instead there is a significant divergence in the health of populations in Austria, which is considered part of Western Europe, and Hungary and Czechoslovakia which is considered Eastern Europe. The mortality rates in Austria are much lower than in the other two countries. Marmot writes that the differing social and economic factors post independence, rather than biological programming, caused the significant differences and similarities in the three countries. Furthermore, he argues that the same sort of divergence which happened between the eastern and western Europe divide is probably what is causing the differences within different regions of countries such as the United Kingdom. (Marmot *et al.*, 1998)

150. **'Ecosocial' epidemiology:**

151. While epidemiologists are familiar with the term 'ecological' as referring to group level analysis, the 'eco-social' theory of health and illness is conceptualized as simultaneous processes occurring at multiple levels starting from DNA to protein to organ to individual to community and beyond. The model of one level nested into another has led to the metaphor of the 'Chinese box,' as the new paradigm of epidemiology. The Chinese box metaphor is to show the inter-related and nested nature of biological processes. The Chinese box, it is argued, is a significant shift from the current 'black box' methodology where multiple, individual level factors are analysed for strength of association without an explication of the exact relationship. (Susser *et al.*, 1996b)

152. Though the eco-social model has only recently begun to be explored in epidemiology, Levins and Lowentín had been asserting in the 1970s and 80s the need to replace unidirectional cause and effect theories with more complex understandings of the dialectical relationships between humans,

other organisms, and the environment. (Levins *et al.*, 1985) Their eco-social theory of health is said to be informed by a variety of sources most notably biology, agriculture, epidemiology, philosophy, and systems theory. (Levins *et al.*, 1999) Underscored by a Marxian analysis, Richard Levins argues that current methodology of epidemiology has focused too narrowly on specific problems such as a single disease. Though the focus on a single disease can help identify therapy for that particular disease, it ignores the much wider and larger issues of health disparities. In fact, the solution can have negative consequences on other processes that affect human mortality and morbidity.

153. Levins further criticizes the multiple factor epidemiological model which attempts to give relative weights to various factors in the causation of disease as being a victim of Cartesian reductivism. Large problems are broken down to individual parts, without recognizing the additional properties at the system level. Instead, Levins argues that rather than either/or distinctions such as genetics/volition, individual/environment, and mind/body, a theory of health should incorporate all factors in a complex system of analysis that is more than unidirectional pathways, and includes feedback loops, time lags, and other interactive relationships. The importance of systems analysis, first developed by biologists in early 20th century, is now beginning to be taken up in epidemiology in the form of non-linear models, such as the 'Chinese box' theory of disease causation. (Krieger, 1994; Susser *et al.*, 1996a; Susser *et al.*, 1996b; Krieger, 2001) Indeed, the causal model of CH advocated presently imagines a dynamic system made up of personal features, conversion skills, material goods and social conditions.

154. **Section IV : Need for unified theory of health**

155. It should be well evident that in reviewing the diverse social determinant theories of disease causation and distribution, all were largely developed in reference to industrialized countries. This is largely because the dominant mode of understanding the determinants of disease in non-industrialized countries is to attribute it to material deprivation. While the biological proximate causes of diseases in developing countries are not denied their causal role, it is more easily accepted that material conditions determine the proximate biological causes. Wilkinson's research presents a

particularly strong position on this by asserting that mortality rates are correlated with GNP across societies. Above the threshold of \$5,000 -20,000 GNP, mortality rates of societies are correlated with income inequality within societies. This threshold, he writes, 'represents a transition from the primacy of material constraints to social constraints as the limiting condition on the quality of human life'. (Kawachi *et al.*, 1999: p 27) However, it is far from certain that determinants of premature mortality and morbidity under this threshold are wholly or uniformly due to material constraints. Poor reproductive health of girls and women, or the spread of HIV/AIDS can be attributed to social and cultural practices as much as if not even more than, material deprivations.

156. It would be even more misleading to conclude from Wilkinson's research that achievement of a certain GNP threshold will automatically bring with it dramatic improvements in life expectancy and lower prevalence of impairments. This widely held view that economic growth inevitably leads to dramatic improvement in life expectancy, to a decrease in burden of impairments, and to improved social prosperity has been longstanding since the mid-20th Century. It was posited as a theoretical model by Omran in 1971. (Omran, 1971) He argued, based largely on the analysis of the trajectory of the United Kingdom, that as a result of economic growth, premature mortality and morbidity dramatically falls, followed by a fall in fertility levels, leading to a demographic transition. However, Simon Szreter argues that there is no automatic link with economic growth and improvement of health or welfare of individuals. In fact, he argues that industrialization released disruptive forces in British society that were managed by the politics of public health advocates and institutions. (Szreter, 1997) That is, social action had an influential role in managing the process and consequences of industrialization.

157. Sen and Nussbaum have also argued against focusing narrowly on increasing GNP. It is not considered to be a defensible approach to development given that there is no guarantee that quality of life of individuals will improve and that equity and justice focusing on the inequalities across individuals rather than just population-level indicators. (Nussbaum *et al.*,

1993) The arguments of Szreter, Sen and Nussbaum help support the point that despite absolute material deprivation being an uncontested determinant of the health and quality of life of individuals, social factors also have influence on individuals across the entire GNP gradient. The emphasis on absolute deprivation over relative inequality obfuscates the differing, relative importance of material and social conditions in all contexts. Across societies and in the lives of specific individuals, the relative influences of material goods and social conditions on biological functioning or achieving a cluster of capabilities vary. The hard won acceptance of social determinants of health inequalities in industrialized countries should not come at cost of denying their influence in poor countries as well.

158. In light of the wide ranging theories put forward by social epidemiologists to supplement the biomedical model, and the possible misinterpretation of the absolute versus relative inequality research, there is a need for a 'unified theory' of health causation and distribution. Such a theory should encompass material and social conditions in addition to biological needs. And it should encompass both rich and poor countries. A unified theory which is applicable across the entire human species must be able to defensibly allocate responsibility for health causation and distribution among the four elements consisting of nature/biology, social and material conditions, individual agency, and luck. Such a theory can indeed be identified by looking towards the 'entitlement analysis' used to explain the causes and distribution of acute and endemic malnutrition.

159. Drèze and Sen showed how the received view that famines are caused by the lack of food is only a specific explanation, and put forward a general theory of famines that included other components. Sen and Drèze were able to demonstrate how famines occur and their 'asymmetrical' effects on individuals by modelling the interactions between an individual's endowments (biological functioning/needs, labour capacity, productive land, and government transfers) and abilities to make adequate exchanges in the marketplace in order to meet nutritional needs. (Drèze *et al.*, 1989) As mass starvation and endemic malnutrition occurs even where there is food available in a particular location, Drèze and Sen eschewed the narrow focus

on the availability of food. In effect, they were able to fully model the interactions between nature/biology, society/environment, and individual agency in the causation and differing distribution of acute and endemic malnutrition.

160. Though the analysis of famines could be reframed in terms of modern capability theory, it is worthwhile to examine the 'entitlement theory' on its own terms. The entitlement analysis consists of three parts: individual endowments, exchange mapping, and the entitlement set. The term entitlement here does not refer to ethical or legal notions of rights or claims, but to descriptive aspects of economic exchanges. Entitlements refer to 'the bundles of goods over which they can establish ownership through production and trade, using their own means'. In the model, individuals begin with differing amounts and types of endowments including different physical and mental powers, land, wealth, products of labour, and so forth. Individuals go to the market to exchange these endowments directly for food or more likely, income through labour. They then again make an exchange or convert income for food. Aside from the direct, or two-step exchange, the third and fourth possible ways to obtain food are either through individuals keeping some of the food they produce, or individuals receiving direct government transfers of food or income which they then exchange for food.

161. A person's entitlement set contains all possible bundles of goods one could legally acquire through existing endowments, direct transfers, or through the one or two-step exchange processes. Analysing various famines, Drèze and Sen showed that famines occur where individuals are unable successfully to exchange or convert their endowments for sufficient amounts of food. Their endowments fall, or the exchange mechanisms fail such as through falling wages for labour or prices for food increasing, and so forth. Endemic hunger occurs for different reasons than famine, but it can still be explained through the same theoretical framework. By focusing on the personal endowments and exchange mechanisms rather than only on the physical availability of food in the surrounding environment, Drèze and Sen showed that famines occur due to a plurality of causes as well as have asymmetrical impact on individuals. The differing types and amounts of

endowments and different skills to negotiate the exchange mechanisms resulted in different types of entitlement sets. They further went on to argue that ensuring a minimum-threshold level of income or a standard nutritional level across individuals would still result in certain individuals being malnourished. This is because individuals have different endowments/biological needs and different abilities to convert their surroundings into entitlement sets. A number of individuals may still be in need or unable to convert what is offered by the threshold. Indeed, the individual can still experience hunger if she chooses not to exchange or make exchanges for bundles of goods other than food. The idea of the entitlement set represents all the possible bundles acquirable from the exchanges, of which food is only one bundle. While this simple model may seem to involve only the individual and the market, Sen and Drèze are emphatic that both the public and the government can play significant roles in ensuring that the entitlement sets of individuals contain sufficient food during famines, and in addressing endemic hunger.

162. The move from the entitlement theory to capability theory, and then to health capability should not be very hard to understand. The entitlement analysis identifies the causation and differing distribution of malnutrition across individuals by looking at the interactions between an individual's endowments and exchange mechanisms. The entitlement set represents all the potential bundles of goods one could acquire, and one assesses if these bundles could be sufficient to meet nutritional needs. A person's capability to achieve nutrition or entitlement set is then not just determined by the availability of food, but also by the nature of exchange mechanisms and personal features or endowments. Capability theory posits that personal features plus social conditions and material goods result in a capability set. Diversity in personal features, diversity in ability to convert social conditions and material goods, and the actual social and material conditions determines the content of the capability set. It looks as if, in the CA, the breadth of personal endowments in famine analysis is transformed into purely personal biological features, and the market exchanges component is transformed into material and social conditions. To be even more explicit, the CA can be

easily summarized as individual needs and skills (endowments) plus social conditions (two-step market exchange dynamics) and material goods (economic goods) produce capabilities. The capability theory is broader than the entitlement theory as the capability set contains bundles of 'beings and doings' rather than just bundles of economic goods including food.

163. The analysis of famines or malnutrition is amenable to being transposed onto a theory of health causation and distribution, not least because the framework successfully explains malnutrition, an obvious health concern. Drawing on Drèze and Sen's analysis, an individual's 'health entitlements' or 'CH entitlement set' would contain the potential beings and doings produced from the interactions of: 1) individual biological needs; 2) abilities to convert material and social conditions into health functionings; 3) the extant material goods and social conditions in the surrounding environment; and 4) luck. Failure to achieve such functionings as living a normal length of life span or avoiding impairments can be explained either by the lack of sufficient material and social support in the environment or due to the individual's choices. That is, the social conditions or 'society' did not provide the material goods or social conditions that satisfy individual biological needs; the individual was unable to improve skills to convert existing material conditions or social conditions into functionings; or the individual wilfully choose to pursue actions that resulted in death or impairments.

164. The descriptive model of entitlement sets or capabilities allows for the integration of biomedical model of disease causation as well as the diverse range of social determinant theories of causation and distribution. At bottom, both epidemiology and economics rely on statistical analysis to infer causation from correlation. The capability model, which comes out of economics, has no difficulty in being able to analyze objective features such as biological functionings and material goods or qualitative phenomena such as conversion skills and social conditions. Thus, individual-level biomedical causes such as genetic endowments, exposures to harmful substances, and behaviours can be integrated with the analysis of social determinant causes such as workplace conditions, social support, political and economic policies,

and so forth. Indeed, the capabilities framework can integrate all of the various social determinants models. It is clear that across individuals and groups, the influence of different personal endowments, conversion skills, and exposures to material goods and social conditions cause different and asymmetric health constraints. Importantly, the capability model provides the significant conceptual advantage of viewing health as a possible set of functionings rather than as the absence of disease. Using the concept of health as capability to achieve or exercise a set of capabilities and functionings would allow this explanatory model to be applicable across the human species, and across rich and poor countries.

165. The further advantage of the capability model is that it is conducive to undertaking an ethical analysis of what the social response should be to the causation and distribution of health constraints. The biomedical model and the social determinants models are constrained from providing valuable ethical information. For example, social determinants research has been motivated by and in turn, expanded social concern for the unequal social distribution of health constraints. However, the scope of social epidemiologists' concern is still only limited to social distributions that are causally linked to social determinants. For example, skewed mortality rates across social classes may be attributed to various psychological stressors due to class position. But cutting across social classes, there may also be unequal mortality across ethnic groups. Though members of the ethnic group may belong to classes with mortality rates, there still may be a compelling reason to address absolute and unequal mortality within the ethnic group in addition to addressing unequal mortality rates across classes. The consequences may be greater for members of the ethnic group, or there may be a social commitment to especially protect the group from premature mortality. Even if there is no social cause to the distribution, there may still be good reason to identify patterns of distributions according to social markers. The biomedical model and even the social determinants model can only legitimately examine distribution patterns according to causal factors.

166. The capability framework can identify distribution patterns of capability sets across multiple dimensions of individuals and groups. This

can provide valuable information in determining the response to the causes, distributions and consequences of health capability and its constraints. Health, understood as the ability to achieve vital goals or a cluster of capabilities and functionings, provides the standard against which to compare a particular individual's health capability set. The capability causation framework provides the information on different possible causes for constraints on the achievement of the cluster of capabilities that make up health. However, social responses to the health capability sets of a single individual or group when they fall below the standard, requires looking at differences in causes (endowments, skills, material and social conditions, choices) as well as asymmetric distributions, and consequences. In the simple case where the cause is the same, looking at a variety of distribution patterns across social groupings or according to consequences may be necessary to prioritize social responses. In contrast to such analysis being on the margins of classic or social epidemiology, the unified capability theory of health causation and distribution can provide robust descriptive information on causation and distribution that can inform an effective and ethical social response.

167. In summarizing Part One, the argument illustrated how coherence could be brought to the concept of health in the theory and practice of the health sciences through a concept of health as the capability to achieve a vital or basic cluster of capabilities and functionings. It also put forward a theory of causation and distribution of health that is able to account for individual-level, proximate causes as well as social determinants. Such a theory unifies a broad range of dichotomous frameworks such those used to evaluate infectious versus chronic diseases, biomedical versus social determinants, rich versus poor country health profiles, proximate versus distal causative agents, natural versus social science, and so forth. Moreover, the framework also provides rich information for identifying an ethical social response to the inequalities in health functionings by not only looking at the inequalities in health capabilities, but also at the diversity of causal components, social distribution patterns, and consequences.

168. As was discussed in the introduction, addressing health concerns requires inter-disciplinary reasoning, most obviously across the health sciences and ethics. But as has been shown, reflecting on the ethical response to inequalities in health achievements cannot begin with taking the extant scope and practices of health institutions as given. Against the claims and assumptions that portray the study of disease causation and distribution as the pursuit of scientific truth, the operation of health institutions including research must be viewed as instrumental activity in the service of human beings. Thus, values and ethics must be considered prior to the scope and extent of these activities. Parts Two and Three thus present an argument for a theory of health at the level of ethical theory, or where social justice principles determining the form and scope of basic social institutions are discussed and justified. With the starting point that the CA is the best approach to social justice, the CH is explicated and then, contrasted with the alternative welfare and resource approaches. Chapter 6 examines in depth the resource approach of Norman Daniels as it has been presented as a full theory of health and justice. Part Three then discusses how health phenomena at the population level mean that group capabilities are an unavoidable concept despite the normative individualism of the CA. The last chapter discusses how a species-wide conception of health capability and the pre-political moral claim to such a capability has profound implications for debates on cosmopolitanism and global justice.

Part Two

Chapter 3: The Capabilities Approach (CA)

169. The aim of this chapter is briefly to review the CA as background to situate the argument for the CH in Chapter 4. It presents a summary of the CA including its major motivations, some conceptual features, and some criticisms. Importantly, it also highlights the main differences between the versions advocated by Sen versus that of Nussbaum. Indeed, the CH argument pursued in Chapter 4 is a hybrid argument which integrates Sen's analytical structure of capability with Nussbaum's central human capabilities as the content. The CH is presented as a meta-capability to achieve or exercise a cluster of central human capabilities at a level that is commensurate with dignity worthy of the human being in the contemporary world. The following review of the CA aims to provide the background to developing such a hybrid argument.

170. The CA has its foundations in the critique of the prevailing thinking in welfare economics and political philosophy in 1970s and 80s. Since then, the CA has been having profound influence on these fields as well as in the theory and practice across a wide range of spheres including domestic and international economic policy making, measurement, and evaluation; population and reproductive health policy making; social exclusion evaluation and policy making; and education policy making. And the present argument for the CH extends the CA into the health sciences and policy making. The two creators and others have written numerous books and analyses on the approach. The Human Development and Capability Association maintains a comprehensive bibliography online. (Human Development and Capability Association, 2007) Given the breadth of the material, all that can be done here is to present a summary outlining key issues and problems with an eye to those especially relevant to the CH. Importantly, it should be noted that the summary here does not present a justification for the CA, and because the CH is an extension of it, not the CH either. For justification of the CA,

one must look first-hand at most recent writings of Sen and Nussbaum. (Nussbaum, 2006; Sen, 2006) The present argument for the CH largely assumes the justification of the CA.

171. The CA is presented as an ethical framework that asserts that a liberal conception of social justice should focus on supporting—protecting, providing, expanding, restoring, and so forth—the capabilities of individuals to conceive, pursue, and revise their life plans. (Sen, 1999a; Alkire, 2002b; Alkire, 2005b; Robeyns, 2005; Nussbaum, 2006; Vizard, 2006) The focus on human capabilities is motivated by the initial recognition that economic goods such as income and wealth only have value because of what individuals can be and do through using such goods. Thus, instead of focusing exclusively on distributing goods because of their instrumental value, CA advocates contend that social justice criterion should more directly focus on what we really care about. Namely, the focal points should be what individuals are able to be and do—‘functionings’—that result from making use of economic goods, commodities, or any other ‘things’. CA advocates do not deny that economic or other material goods can be crucially important for individuals but rather, that an exclusive or primary focus on goods rather than what people can be and do is off-target.

172. A second, foundational and motivating impetus behind the CA is the concern for inequalities in the standard or quality of life across individuals. National or aggregate group statistics such as Gross National Product or life expectancy and other population health statistics often obfuscate inter-individual inequalities in basic human functionings as well as in broader opportunities and abilities to pursue life plans. The prevalent focus on aggregate measurements of achievements of social groups or the nation-state likely reflects societal goals seeking to maximize the average or total group levels of wealth or welfare. The CA militates against both a ‘fetishistic’ focus on material goods as well as on maximizing aggregate indicators while disregarding inter-individual inequalities in what individuals are actually able to be and do. Instead, the CA champions supporting individual capabilities understood as effective opportunity to achieve beings and doings. Advocates of the CA have divergent views on if and when the goal of social

action is to ensure the sufficiency, equity, or equality of capabilities. Not surprisingly, given the entrenched focus on economic and material goods in both ethical theory and public policy making, some detractors of the CA insist that the focus of social justice should continue to be on distributing economic and other resources.¹

173. Aside from economic or material goods being off-target if the real concern is for what individuals are able to be and do in pursuing their lives, the methods used in distributing such goods can actually create or exacerbate inequalities in the choices and abilities of individuals. The types of resources and the amounts to be distributed are often based on a 'standard' conception of individuals/citizens or their 'needs' in both theorizing and policy making. Entitlements are often based on an idealized moral agent, or average citizen, adult, or child. However, at any single point in time, and over the life course, every human being differs in her biological and psychological needs for the types and quantities of material and social resources in order to achieve even the same functioning as another human being. For example, the daily requirements for protein are different for a growing child than an older individual. Or a pregnant woman needs more iron and nutrition than another individual in order to undertake the same level of physical activity. Distributing one standard package of goods, such as a minimum income or food rations based on a fixed conception of needs can result in individuals being unequally able to achieve the same functionings as well as pursue their diverse plans of life.²

174. Every individual also differs in her abilities to convert her surrounding social conditions and extant material goods into beings and doings. Physical and psychological features such as mobility and literacy can profoundly determine one's ability to make use of available material goods and social

¹ For a brief review of debates on whether social justice should focus on resources, welfare or capabilities see Daniels. (Daniels, 1996a) Moreover, it is an open question as to whether there is a necessary trade-off between achieving equitable capabilities versus higher aggregate capabilities. While Nussbaum and Sen have different approaches to this 'aggregation' problem, Peter Singer sees the potential of equalizing down as a major fault of Nussbaum's CA. (Singer, 2002)

² Thomas Pogge argues that a 'sophisticated resource theory' would be able to account for most differences in needs of individuals except those of severely impaired. But he acknowledges that no current resource theory can be considered as being such a sophisticated resource theory. (Pogge, 2002a)

conditions. The efficacy of conversion abilities can also be significantly influenced by external constraints. For example, racism, gender and caste discrimination, or disabling architecture can be significant barriers for an individual in converting extant goods and social conditions into beings and doings.³ Furthermore, individuals can be differently able to convert their own endowments—their own physical features, reasoning capacity, or even property—because of the lack of information, training, and indeed, various types of cultural beliefs. Girls and women may believe that certain kinds of reproductive tract impairments are a normal part of being female; that females cannot physically exert themselves as much as males; or, that female reasoning skills are ill-equipped for business or scientific professions. Theorists and policy makers using a standard template of conversion skills or simply ignoring differences in conversion skills all together can produce or exacerbate inequalities in quality of life across individuals. Personal diversity in needs and conversion skills will produce unequal capabilities if every person is provided a standard type or amounts of goods and social conditions.⁴ Such resultant inequalities can become obviously apparent when individuals with severe physical and mental impairments are said to be treated equally by given entitlements to the same set of resources as individuals without impairments. Thus, CA advocates maintain that the narrow focus on commodities, aggregate statistics, exclusively following maximization policies, or using a standardized conception of persons can often be blind to, wilfully tolerate, or directly produce unequal opportunities and abilities among individuals to pursue their life plans.

175. Given the CA's central worries over the right target of ethical concern and inequalities in the life prospects of individuals, the CA also strongly repudiates the prevalent focus on welfare—whether it be utility, happiness,

³ For example, in 2004 the United States Supreme Court heard arguments in *Tennessee v. Lane* where physically disabled plaintiffs argued they were denied access to public services because they could not physically access courtrooms. George Lane had to crawl up the courthouse steps, while security guards watched and laughed, in order to appear and defend himself in court. He was later arrested for failure to appear in court when he refused to crawl or be carried up the stairs at a subsequent hearing. *Tennessee v. Lane*, 541 U.S. 509 (2004)

⁴ This is one of the criticisms of the 'basic needs' approach to development policy which promotes entitlements to minimal amounts of various goods to every citizen. (Sen, 1983; Sen, 1992)

preferences, satisfaction, et cetera—in economics and consequently, in national and international development policies. The pervasive focus in economics on welfare or well-being, understood to reflect the subjective mental state of a person, is due to the influence of utilitarianism. Paralleling utilitarian philosophy which asserts that the only correct social goal is to maximize human happiness and minimize pain across individuals, welfare economics aims to maximize the social welfare function that aggregates preferences. However, as has been repeatedly argued, the preferences of human beings are malleable. (Sen *et al.*, 1982; Nussbaum, 2000) Some human beings adapt to great deprivation and express little or no dissatisfaction. Meanwhile, other individuals can express great dissatisfaction with what objectively seems a minor annoyance in comparison. Moreover, under a pure utilitarian regime, the goal of maximizing aggregate welfare means that it is reasonable for any individual human being to be used as a means to achieve higher aggregate social welfare. The goal of achieving maximum amount of welfare trumps all other considerations. Furthermore, contrary to the primacy given to the pursuit of happiness by utilitarianism, certain actions may be important to pursue even though they are known to result in unhappiness. Fighting in a just revolution, for example, can be a valuable activity even though it will not likely be pleasurable for the individual. Though this cursory description of welfarism and utilitarianism may be objected to as being an unfair rough sketch, for the types of reasons highlighted here and more, critics of welfarism/utilitarianism have argued that economics and social justice and equity concerns must consist of much more than just maximizing subjective pleasure or satisfaction.⁵

176. In order to avoid the range of profound flaws of both ‘resourcist’ and ‘welfarist’ approaches highlighted here in both theory and practice, advocates of the CA aver that the equal respect and moral concern for every human being compels ensuring sufficient or equitable capabilities of individuals to conceive and pursue their life plans. There is importance given to

⁵ Admittedly this is a very rough sketch of welfarism and utilitarianism. For an excellent and more even handed review of utilitarian philosophy and its different branches see Kymlicka. (Kymlicka, 2002)

recognizing 'capability' rather than just the actual achievement of beings and doings because of the intrinsic value in having choice or opportunity to achieve various beings and doings as well as in the actual achievements. Advocating for the capability rather than actual achievement is also necessary in the context of a liberal society. Citizens must be allowed to determine their own life plans as far as possible. Furthermore, there is also the important distinction between 'substantive' opportunity and just formal opportunity. Substantive freedom or opportunity exists when there is real or effective practical possibility to exercise a capability. That is, for each capability, a person's internal features/needs and conversion skills and external material and social conditions all must sufficiently match to create the practical possibility to achieve the being or doing. CA advocates also emphasize the value of having a meaningful breadth of capabilities.⁶ That is, the intent of the CA can be undermined if the idea of a capability is applied to superfluous or disvalued beings and doings, or a person is presented with a very limited choice of capabilities, even if they are valuable. The overarching goal of the CA, then, can be understood as ensuring individuals have substantive and meaningful freedom to conceive, realize, and revise his or her own ends.

177. The significant implications of CA's arguments for shifting the focus from goods and welfare to capabilities, and the philosophical justification for such a move have been explored in a range of disciplines. Not surprisingly, the CA has had the most influence in the two disciplines of welfare economics and political philosophy. (Robeyns, 2005; Robeyns, 2006) There is considerable overlap between the CA and these two disciplines as welfare economics is concerned with how best to measure and achieve economic and social progress, traditionally seen as maximizing the social welfare function. And there is overlap with political philosophy as one of its central concerns is conceptualizing a just society. As a result, the CA has evolved

⁶ There is argued to be value in both having options as well as in having meaningful options. This discussion is deferred at this stage because it largely pertains to Sen's conception of the CA. Nussbaum advocates for a particular set of central human capabilities thus sufficient choice and meaningful breadth is delineated to some extent. She argues that life worthy of the dignity of the human being will have sufficient levels of ten specific capabilities. Sen speaks more abstractly about the value of having choices, and for these choices being valuable or meaningful.

over the past two decades in critical opposition to competing perspectives in either discipline. It has also evolved through trying to proactively illustrate the empirical and normative aspects of simultaneously pursuing economic and social goals while realizing a coherent conception of social justice. (Alkire, 2002b)

178. The CA is currently viewed as being most directly relevant to the theory and practice of economic and social development policies of developing countries.⁷ Given that alleviating poverty and human deprivation is the main concern of such policy arenas, and that previous policies focused largely on increasing aggregate wealth or distributing basic goods, the CA is viewed as offering the most state-of-the-art policy guidance that can overcome the drawbacks of previous policies while also providing ethical justification. Nevertheless, the social concern over poverty, inequality, and other deprivations in poor or industrialized countries means that the CA has potential for global application.⁸

179. Interestingly, though the CA has hitherto had significant influence on the normative aspects of welfare economics, the sub-field of health economics has also begun to explore potential applications. (Evans *et al.*, 2001; Anand, 2005; Anand *et al.*, 2005) Health economists develop measurements, guidelines, and recommend policies both in the public and private sectors on how to allocate resources in the 'health sector'. Their actions in effect determine on a massive scale who will live and who will die, and whose impairments will be mitigated, and whose will not. (Anderson, 2007) Health economists are faced with making some of the starkest decisions regarding the distribution of benefits and burdens across citizens. However, here too, the dominant mode of ethical reasoning so far has been to focus on goods and pursue welfare maximization. That is, the distribution of healthcare resources is marshalled to where aggregate, population health measures will be maximized. (Anand, 2005)

⁷ See online bibliography on the CA at <http://www.capabilityapproach.com/>.

⁸ The Cabinet Office of the United Kingdom recently incorporated the Capabilities Approach in evaluating how to chart a course for the Equalities Review Commission. The Equalities Review Commission will now combine all different government organizations that are meant to ensure equal treatment of citizens. (The Equalities Review, 2007)

180. In seeking to justify what a particular health measure is capturing and the maximization methodology, health economists like any other agents seeking justification look towards ethical reasoning. And contemporary ethical reasoning in the domain of public or social policy has largely been focused on articulating and justifying a conception of social justice that is egalitarian. Much of modern day egalitarianism has its roots in the nineteenth century when utilitarianism presented a radically alternative ethical framework to counteract longstanding social inequalities arising from such aspects as the class and family one was born into or religious beliefs. Utilitarians advocated the moral importance of taking equal account of the welfare of every individual in social planning. It found wide acceptance due to its simple method of consequentialist reasoning to achieve welfare maximization, and its justification being that welfare or happiness is the most important good in human life. The principle of 'the greatest good for the greatest number' arising out of that period in time still dominates public policy making in countries world wide.

181. **Section I: Rawls, Sen, and Nussbaum**

182. After dominating liberal political and social philosophy for over a century, utilitarianism was seriously challenged in the late twentieth century by the publication in 1971 of a *Theory of Justice* by John Rawls. (Rawls, 1971) Resurrecting the social contract tradition, Rawls argued that in a hypothetical decision making process, a representative group of human beings, placed behind a 'veil of ignorance' that shields them from knowledge of their prospective social positions, would impartially identify a set of basic social institutions and rules for social cooperation that would establish a just or well-ordered society. This conception of social justice is argued to exhibit a 'fair procedure' approach to justice as it identifies a mutually agreed, fair process for decision making so that the outcomes, whatever they might turn out to be, will be considered just. (Nussbaum, 2006: p10) This is in contrast to alternative approaches including utilitarianism or rights theories which seek to ensure certain outcomes, and then proceed to identify appropriate procedures. (Nussbaum, 2006: pp 81-84)

183. According to Rawls, the respect for equal moral worth of persons, or egalitarianism, is expressed in his theory in a variety of ways—in the hypothetical procedure, and most particularly, in the social guarantee of a set of ‘primary goods’.⁹ That is, respect for the equal moral worth of individuals is partly realized through ensuring that every individual has access to certain goods which each would find to be instrumentally valuable in pursuing their individually unique ends. The primary goods are ‘all purpose means’ that include material goods such as income and wealth as well as social conditions such as liberties, equality of opportunity to achieve jobs and offices, and social basis for self-respect. Rawls further maintained that against the background of a set of basic institutions which would guarantee the primary goods of highest equal basic liberties and equality of opportunity, certain inequalities in income and wealth should be allowed. Rawls reasoned that because economic incentives are necessary for the economy to function and grow, inequalities in income and wealth were unavoidable, but that they could be regulated or harnessed. Thus, Rawls stipulated that keeping in mind the requirement for the equal distribution of certain other primary goods (such as liberty, or social bases of self-respect), any increase in inequality in income and wealth across individuals could be allowed if it is also concomitant with an increase in the shares of the least well-off.

184. The significance of Rawls’s contributions is hard to overstate. He is credited with re-establishing political philosophy as a living discipline, and for widening the conceptions of social justice beyond utilitarianism. Other philosophers have followed Rawls in offering alternative conceptions of social justice, and given his influence in the field, have had to articulate the similarities and differences to his theory. After surveying the field of political philosophy including and after Rawls, Sen makes the observation that all the proposed theories of social justice are egalitarian, but the central and divisive question is equality of what? (Sen, 1992) In order for a conception of social justice to be plausible in the modern world every individual has to be treated

⁹ These include i) basic rights and liberties...ii) freedom of movement and free choice of occupations against a background of diverse opportunities...iii) powers and prerogatives of offices and positions of responsibility...iv) income and wealth...v) the social bases of self-respect..’ (Rawls, 1971: p 62; Rawls, 1980: p 526; Rawls, 1993: p 181)

equally, but in what respect should individuals be treated equally? Rawls conceives the moral equality of persons as requiring a particular distribution of particular goods. Contemporary utilitarians still maintain that equality requires taking into account each person's preferences in the maximization of welfare. Other philosophers have argued that equal treatment requires equal distribution of certain resources, opportunities, rights, and indeed, capabilities. Roughly, all the various propositions for equal treatment can be characterized as falling into one of the three categories of *welfare* (utility, happiness, well-being), *resources* (primary goods, insurance, basic income, opportunities, rights), or *capabilities* (minimum threshold, basic). (Daniels, 1996a)

185. Despite standing alongside various conceptions or theories of social justice, the reason the CA is referred to as an 'approach' rather than a theory of justice is because it does not have the full components of a general theory of justice. People do indeed disagree about what is necessary for a theory to be considered a complete theory of justice. However, using the work of Rawls as a standard, a theory of justice should comprise a political account of the person, a political theory of the good or rights and obligations, a political psychology, and an account of justification that includes the identification of the epistemology and methods used in constructing the theory. (Nussbaum, 2006) These components should address the concerns over the coherence of theory construction, the fairness of the proposed conception, and the stability of the theory when being realized in the world. A critique of a theory is often the evaluation of these aspects. Despite having many of these components, the CA is not considered to be a full theory. One reason is that the CA thought to not have any 'public criterion of social justice'. (Pogge, 2002a) That is, according to Thomas Pogge, the CA provides a useful language to assess the justness of other theories of justice and real world situations, but by itself, the CA offers no criterion for what justice should substantively entail. Pogge is essentially asking, if equal treatment is meant to apply to capabilities then, capabilities to what? Without any content of capabilities, it is only an analytical framework, not a substantive theory. While there are answers available to Pogge's questions,

such answers, however, still will not transform the CA into a full theory for some of the reasons discussed below.

186. Pursuing an answer to Pogge's question presents one of the distinctive aspects of the CA among the range of contemporary conceptions of social justice. Uniquely, the CA has two prominent advocates—Amartya Sen and Martha Nussbaum—who developed the approach together for a period of time but now have quite divergent views. The answer to Pogge's question, and whether the CA is classified as an approach or theory will depend on which of the two versions one pursues. Sen's initial critique of the focus of welfare economics on preferences and Rawls's standardized set of primary goods formed the foundation of the CA. He has recently written that there is no need for an all encompassing 'transcendental' theory in order to evaluate and do justice in particular situations. (Sen, 2006) This seems to imply that his version of the CA does not need to be a comprehensive theory of justice, whatever that may entail, in order to do justice. Moreover, aside from describing the analytical concept of a capability and how it may be applied to a particular quality of life issue, he has steadfastly refused to identify any capabilities that every human being should possess in a conception of a just society. This seems to preclude his version from providing any 'public criterion of justice' that Pogge claims is needed.

187. One reason Sen provides for refusing to identify 'the list' is that the commitment to self-determination and democratic processes in liberal philosophy militates against any specification of the right or the good. He argues that specifying capabilities would be limiting what people may or may not be and do. Nevertheless, Sen has previously identified what he believes would be some 'basic capabilities' that would likely be common to any community when deliberating on the content and priorities of capabilities. These basic capabilities would include the capability for mobility, to satisfy nutritional requirements, to be clothed and sheltered; to participate in the social life of community, and others. (Sen *et al.*, 2003) Importantly, Sen argues that a full list of capabilities should not and cannot be identified across human beings because of the plurality and incommensurability of moral goods. There is no acceptable way to achieve a full and thorough ranking of

moral goods, here, capabilities or functioning-achievements, in a liberal society. (Sen, 1994c; Sunstein, 1995; Sen, 2000) Even where democratic processes and public reasoning attempts to identify a list of capabilities, it may be untenable to expect an agreement on a complete and ordered list. All of this may be true, Pogge replies, but as a prominent member of the public participating in public deliberation, Sen could still identify what he thinks should be in the set of capabilities that every person should possess. (Pogge, 2002a)

188. In contrast, Nussbaum has clearly pursued constructing a capabilities based theory of justice, which she explicitly identifies as being a 'partial' theory of justice. Nussbaum writes that she shares Sen's belief that the 'capability space' is the right place to compare and evaluate inequalities in quality of life across individuals. However, she pursues providing an account of 'core human entitlements' that should be 'respected and implemented by governments of all nations, as a bare minimum of what respect for human dignity requires'. (Nussbaum, 2000: p 12; Nussbaum, 2006: p 70) Thus, Nussbaum has combined the evaluative space with substantive content which then produce basic political principles for social organization. In following Rawls's standard of theory construction, she also identifies a necessary moral psychology that consists of greater beneficence and compassion than what is required by dominant social contract theories based on mutual advantage; an epistemology and method of using wide reflective equilibrium which she uses to move from an intuitive conception of the human being and dignity to the consequent capability entitlements that attach; and she follows Rawls in seeing her theory as being limited to political liberalism, and making the ten central capabilities the object of overlapping consensus which is argued to provide stability.

189. What distinguishes Nussbaum's approach from Sen's most clearly is that she has identified ten 'central human capabilities' (CHCs). These capabilities are to be guaranteed by every society to each citizen and indeed, to every living member of the human species. Nussbaum's conception is presented as only a partial theory of justice because she is concerned 'only' with sufficiency, or ensuring minimal thresholds of central capabilities.

Indeed, she argues for some capabilities to be sufficient they will have to be equal. And, ensuring sufficient capabilities is seen as one but not the only central purposes of social cooperation. (Nussbaum, 2006: pp 71, 75, 274) Because she does not consider establishing all political principles, or the inequalities in capabilities above the sufficiency thresholds, Nussbaum suggests her partial theory is compatible with other theories of justice being implemented when everyone is above the minimum thresholds levels. (Nussbaum, 2000: p 12; Nussbaum, 2006: p 75) Among these other theories, a theory striving for the full equality of capabilities, which is sometimes attributed to Sen, could still be a possibility.

190. One of the drawbacks of the CA is that there is much confusion in the capabilities literature about basic concepts, including the idea of a capability for a variety of reasons. Some of this confusion is due to the differences between Sen and Nussbaum. Putting aside outright misunderstandings of the idea of capability, choosing to privilege Sen's or Nussbaum's conception over the other, or instead, attempting to bring together both versions as I think one should, requires a thorough understanding of the sources, distinct forms of both versions, and what they have in common. Even this, however, is not an easy task. The simplest distinction between Sen and Nussbaum's approaches is to consider the Senian version as a descriptive framework while viewing Nussbaum's conception as a normative framework. Sen's approach has been described as providing an analytical device in contrast to Nussbaum's account of substantive entitlements. (Alkire, 2005b; Robeyns, 2005; Robeyns, 2006) This distinction is too weak to hold, however, as Sen's argument also has normative intentions. He argues that for any theory of social justice to be plausible, it has to have some component of treating every person equally in some respect. He further argues that the most defensible conception of equal treatment from the perspective of social justice or equity is to ensure equal or equitable capabilities. (Sen, 1992; Sen, 1999a) Thus, like Nussbaum, Sen also intends his version of the CA to be a normative theory that should stand along side other liberal theories of justice.

191. To truly appreciate the breadth and nature of differences between their two approaches which only seem to be increasing, it is quite useful to

see the origins of the CA in Sen's entitlement theory of hunger/famines and its coming together with the Aristotelian conception of human flourishing, where Nussbaum begins. Sen's entitlement theory of famines has already been discussed in Chapter 2. To quickly recapitulate, the entitlement analysis models the causation and asymmetrical distribution of acute and endemic malnutrition among individuals by capturing the interactions between an individual's endowments (personal and material) and market exchange mechanisms. A person's theoretical entitlement set holds all the potential bundles of goods she could acquire through iteratively converting her endowments in the marketplace. The sufficiency and asymmetry of nutritional achievements can be best evaluated by examining a person's entitlement set, and not only by the extent of available food in the immediate vicinity. That is, a person's nutritional level is determined by the interactive sum-effects of 1) the diversity in individual needs for types and amount of nutrition, 2) extant endowments, 3) availability of food, and 4) state of market exchange mechanisms. Acute and endemic hunger occurs when there are insufficient bundles in the entitlement set from the interaction of needs, endowments, available food, and market exchange mechanisms.

192. **Section II: Sen's analytical device, quadrants, vectors**

193. The concepts of a capability and functionings have been described in a variety of ways. (Sen, 1983; Nussbaum, 2000; Alkire, 2005b; Robeyns, 2005; Robeyns, 2006; Vizard, 2006) As an aid to making sense of the variety of descriptions, it may be helpful to identify a number of conceptual dyadic distinctions. After reviewing the writings of Sen, Nussbaum and others on the CA, one may initially conceptualize the idea of a capability as an equation, imagining an archetype of a capability on one side and the personal features and external, material and social conditions of a person on the other side. For example, an ideal conception of a capability to be well nourished would be on one side of the equal sign and the personal features of the individual and her external conditions on the other. We would want to see whether the combination of the personal features (needs, endowments, conversion skills) and external conditions (material, social) provide the real opportunity to the person to achieve the functioning of interest. Does it

approximate the notion of the capability we have in mind? A capability to achieve a single functioning, such as being nourished, is obviously the simplest version of a capability, and really works only in theory. Any human capability is likely to be complicated entailing the effective opportunity to achieve a cluster of iterative and interactive functionings and capabilities. For example, the simple capability of walking to the door really is made up of a complicated set of iterative capabilities and functionings occurring at the sub-molecular level up to the immediate physical conditions in the environment.

194. A second dyadic distinction the CA frequently uses is that between capability and functioning. A capability, as previously described, is the practical possibility of exercising or achieving a functioning. The necessity of making such a distinction is grounded in the central value of having opportunity; being able to choose how to pursue one's life. The third dyadic distinction is between the individual's personal features and external material and social conditions. Some of the CA literature simplifies this distinction as being internal versus external aspects of capability. It may be much more helpful however, to clearly identify the four components as personal features/needs, conversion skills, external goods, and social conditions.

195. The fourth dyadic distinction is between well-being and agency functionings. All acts carried out by a person are not necessarily beneficial to the person. An example often presented is that of a person A enjoying a picnic who jumps into a frigid river to save another person B in distress. (Alkire, 2005b) Jumping into the cold river was not immediately beneficial to person A enjoying the picnic, but she nevertheless, was able to carry out the act. The act of jumping in the river to help B illustrates A's agency functioning but it would not be A's well-being functioning. So there is an important distinction which should be made between acts that are 'beneficial to' or 'good for' the person acting, and acts that are done for 'other purposes'. In the CA, acts beneficial to the actor are referred to as 'well-being functionings'. They include mental and physical states of the person and which are both subjectively and objectively positively valued. And, acts aimed for other purposes are referred to as 'agency functionings'. Agency

functionings are intended to encompass the full breadth of acts that individuals undertake in determining, revising and pursuing their conception of the good life. And of course, there is value in being able to have capabilities to exercise both types of functionings.

196. Indeed, beneficial can mean a range of things including beneficial according to the person's own valuation, or according to some objective criteria. Acts that are beneficial to the person acting can also have other secondary purposes. They can also be interdependent where beneficial acts allow the person to carry out other acts for 'other purposes' or visa versa. There is no hard rule that separates well-being from agency functionings. The basic point is that any single act can be identified as being directed at adding to the well-being of the individual or for achieving other goals. Indeed, it is suggested that agency functionings make up a much larger category than well-being functionings, and that agency functionings are crucial to realizing well-being functionings.¹⁰

197. In Sen's version of the CA, a capability is conceived as having four dimensions or vectors. They include a) agency-freedom; b) agency-achievement; c) well-being freedom; d) well-being achievement. (Sen, 1999a; Alkire, 2005b) For any meaningful capability, these four dimensions identify the importance of there being ability or 'effective freedom' in terms of breadth of extant opportunities, and abilities to choose to follow any of them. Importantly, this four-quadrant, multi-dimensionality of any given capability is said to exhibit 'internal plurality' for assessing capabilities. Equal capabilities do not mean identical vectors but that there are equal 'effective freedoms' to achieve the functionings across individuals.

198. It is important to point out that Nussbaum does not identify a distinction between well-being and agency, but does make use of the distinction between freedoms and achievements, or capabilities and functionings. Her reasoning for not using such a distinction is based on the potential for confusion caused by the term 'well-being' being closely associated with utilitarianism. She sees no additional benefits in highlighting

¹⁰ This is reflected in the debate about the instrumental importance of liberties in promoting economic and social well-being, or priority of liberty. (Sen, 1994b)

or separating well-being from agency functionings that could not be handled within the distinction between capabilities and functionings. (Nussbaum, 2000: p14) In fact, Nussbaum categories capabilities as being basic, internal, or combined. (Nussbaum, 2000: p84-85) Combined capabilities being those which entail internal capabilities combining with suitable external material goods and social conditions in order to exercise a function.

199. The difference between Nussbaum and Sen on the importance of agency and well-being distinction lies perhaps, in their different primary disciplines. Sen is supremely concerned with how to make comparisons among individuals about their quality of life. The impossibility of making interpersonal comparisons of utility has been a long standing assumption in neo-classical economics. What Sen has achieved, and is committed to asserting, is that though one might not be able to make interpersonal utility comparisons, we can make comparisons of people in each of the four quadrants. Adherents to the Senian conception of capabilities are asked to think of each capability as being multi-dimensional and more practically, to conceive of each quadrant as a vector contributing to the capability. This allows to conceptualize that different vectors or quadrants may be able to compensate for the weakness of one or more of the other vector/quadrants. Moreover, importantly for an economist, Sen is asserting the possibility of making comparisons across people along these vectors/quadrants, and not their utility function. In contrast, Nussbaum's primary grounding in ancient and modern philosophy motivates her reasoning for a conception of human flourishing and its relation to social justice.

200. Dan Brock identifies various philosophical advantages of using these four quadrants/vectors. (Nussbaum *et al.*, 1993 p.99) The most important of these is that it allows that a full conception of a good life does not reduce to a single property, and is thus able to incorporate some valuable aspects of diverse ethical theories separately and together. That is, the focus on either hedonic conscious experiences or preference satisfaction in welfarist theories can be part of the well-being quadrants. It may not have supreme or significant weight, but it can be included. Indeed, Brock highlights that each of these four vectors can be thought as being made up of sub-vectors.

(Brock, 1995) So, for example, the well-being freedom vector can be made up sub-vectors representing physiological achievements that make possible others, access to nutrition, and so forth. Brock's argument affirms the notion that any given capability is really made up of a complex set of iterative and interdependent capabilities and functionings.

201. The fifth and final distinction needs to be identified. Within agency functionings, or acts that are not directly or immediately beneficial to the individual, Sen makes a further distinction between what he calls 'power' and 'process' agency. (Sen, 2001c) This serves to distinguish between a person's interest in controlling the process that aims to achieve a goal versus the emphasis on achieving the goal even if or when the person does not have direct control over the process. In either situation the person has the capability to achieve the goal, but the person's interest can either be on the *acting* in the first, or the *achieving* in the second. For a myriad of simple and complex functionings, a person may not be able to have control over the process of exercising a functioning, or making it possible to exercise a functioning. Philip Pettit refers to this second kind of functionings achievements as 'indirect liberty' and 'passive empowerment'. (Pettit, 2001) Consider when a child is bathed, a disabled person is carried up the steps, or new laws restrict air pollution allowing one to breathe easier. In each of these examples, the individual achieves functionings though they could not control the process to the achievement. At a prior point in time, however, they each possessed a capability to achieve the functioning. But the importance may not always be on highlighting the point in time when they had the capability. Given the four vectors, the achievement of the well-being functioning may compensate for the person not having agency-freedom over the process. In regard to some functionings, however, it may be much more important that the individual have the well-being freedom. For example, performing surgery on a person to remove a cancerous growth may produce a well-being achievement, but their ability to choose to have that operation may have significant ethical weight. Thus, in the Senian version, the distinction between power and process agency, combined with the four-vector distinctions, outline a conceptual device or architecture to assess a

person's capability. It should be clear of course, that this device becomes real only through content, or when particular capabilities are defined and how different functions, vectors, and vectors within vectors are causally related, prioritized, and weighted.

202. To summarize, as a helpful tool, it was suggested keeping in mind five dyadic conceptual distinctions.

- 202.1. ideal capability vs. personal features, external conditions
- 202.2. capability vs. functionings
- 202.3. personal features vs. material goods and social conditions
- 202.4. well-being vs. agency functionings
- 202.5. control agency vs. power agency

203. The Senian capability device is presented as having four vectors.

- 203.1. well-being freedom, well-being achievements
- 203.2. agency freedom, agency achievements

204. **Section III: Nussbaum's CHCs**

205. Nussbaum's initial interest in the CA is said to be motivated by the shared observation by Drèze, Sen and Aristotle that the focus of moral concern should not be on commodities, but on what individuals are able to be and do. Sen and Nussbaum originally overlap in their approaches in their shared theoretical critique of Rawlsian primary goods and utilitarianism. Since then, the most significant difference between the two which Nussbaum herself identifies is her explicit account of valuable human capabilities. (Nussbaum, 2000 pp 11-15) Thus, one basis for dismissing Pogge's assertion that the CA has no public criteria of justice is Nussbaum's list of capabilities. The ten CHCs identify some basic political principles for organizing a minimally just, liberal society. Nussbaum maintains that all societies should ensure that every citizen achieves a certain threshold of each central capability. In brief, the ten central human capabilities include 1) living a normal length of lifespan; 2) having good health; 3) maintain bodily integrity; 4) being able to use senses, imagination, and think; 5) having

emotions and emotional attachments; 6) possess practical reason to form a conception of the good; 7) have social affiliations that are meaningful and respectful; 8) express concern for other species; 9) able to play; and 10) have control over one's material and political environment. (Nussbaum, 2006: pp 76-77)

206. Nussbaum continues to affirm that the social goal is normally to ensure that individuals have capabilities and not their achievements ('functionings'), unless dignity and respect are at stake. However, for children, the social goal should be the achievement of functionings. Capabilities, not functionings are the focus for adults because of the necessity to respect the choices of citizens to determine their own lives, and importantly for Nussbaum, in order to achieve overlapping consensus regarding her ten CHCs. At the same time, she still allows for the possibility that some functionings may be considered to be so valuable that they will not be allowed to be neglected or fail, even if it means overriding individual choice.¹¹ (Nussbaum, 2000: pp 91-96)

207. Nussbaum's list of CHCs is profoundly influenced by Aristotle and Marx, and is centred on the concept of moral worth or human dignity. That is, she conceives of a human being's dignity as being uniquely constituted by its neediness, sociability, and ability to reason. She starts from the intuitive idea that certain basic functionings are so central to human life that their absence or presence reflects the absence or presence of human life form. From there, the Marxian component is reflected in recognizing that to be 'fully human' requires that the person does these functions differently than what would be normal for other animals. In addition, for Aristotle, a conception of human flourishing and conditions for human flourishing are both necessary components. Thus, Nussbaum asserts that the abilities to exercise these central functions in a way worthy of the dignity of the human being requires supportive external material and social conditions. Bringing together Aristotle, Marx and some aspects of Grotius, Nussbaum argues that a life worthy of the dignity of the human being is made up of opportunity and

¹¹ This space for paternalism for adults should be understood as protecting the right of exit. Certain functionings are so valuable that a person who allows them to fail would destroy her ability to revise her choices.

activity that reflects the neediness, sociability and ability to reason of the human animal. That is, these functions are not done purely by animal instincts or through being passively shaped and pushed around, but infused throughout by reasoning, cooperation, and reciprocity with other human beings. (Nussbaum, 2000 p. 72)

208. Her list of basic capabilities, contrary to some cursory criticisms, does not advocate a form of an ideal human being or 'perfectionism'. (Nussbaum, 2006: pp 69-81) Unlike others who do advocate a version of Aristotelian perfectionism, Nussbaum argues for minimum threshold levels of central capabilities. These levels of capability or opportunity ensure that each human being is able to pursue diverse conceptions of life, and in a way worthy of the dignity of the human being. The list of ten CHCs does not describe a comprehensive conception of the good life for every human being. Rather, the list of basic capabilities identifies a level of freedom, thresholds of capabilities and functionings, which every society should ensure to its citizens. Beneath these thresholds, human beings do not have basic functionings which allow for a life worthy of the dignity of being human.

209. A second criticism that has been directed at the list of ten CHCs and the CA in general is that it constrains possible conceptions of the good. The list is said to be patently illiberal for specifying and valuing content of a life. In fact, Nussbaum has been explicit in taking a position that a commitment to liberalism does indeed involve making some minimal normative commitments to a conception of the good. The ten CHCs reflect a conception of the human being as a 'needy enmattered being' and of a life worthy of its dignity. Eschewing a purely biological account of the human animal or moral perfectionism, she identifies the prerequisites for living a fully human life. (Nussbaum, 2006: pp 81-84)

210. The charge that the CA or CHCs constrain the conception of the good for human beings also depends on how critics believe human agents come to have rationality to conceive their life plans and where ethical theory should begin. For example, Rawls avoids this problem largely by requiring from the start that his hypothetical contractors have full rationality. That is, his 'thin theory of the good' requires that individuals be rational in order to

conceive their life plans, and have a sense of justice. Their capacity for impartiality is reflected in the use of the veil of ignorance. Moreover, in order for there to be any interest in making a contract, individuals must be free, equal, independent, and in an environment of moderate scarcity. For Rawls, the representatives behind the veil of ignorance embody the minimum conception of the person, and what they seek to achieve. Having such a scenario of moral contractors in mind, a list of central human capabilities may seem to be super-imposing on the rational capacities of individuals to determine their own lives. However, it should not be easily ignored that in Rawls theory construction, those who are significantly unequal, either in mental abilities to reason or physical functionings are excluded from the theoretical procedure. They become secondary beneficiaries, post agreement, comparable to how one might think about children and their interests. Nussbaum eschews such a social contract procedure with idealized rational agents precisely in order to conceive her moral agents as 'enmattered beings' which are needy, sociable and capable of rationality to varying degrees over the life course. (Nussbaum, 2006: pp 159-164) In fact, if we compare what Rawls requires of his moral agents in terms of each being free, equal, independent, having two moral powers, and with impartiality provided by the Veil, with the minimum level of opportunity and activity Nussbaum seeks to ensure through the ten CHCs, there is not such a big difference in either of their 'thin' theory of the good. Nussbaum, at least, does not seem to be conceiving much more than what Rawls requires for his contract procedure to get off the ground.

211. The charge against CHCs and the CA that it constrains the good though it aims to ensure capabilities instrumentally valuable to conceiving and pursuing the good seems misplaced. In an extreme example, some have argued that asserting that human beings need to be alive in order to pursue the good is ethical imperialism or constraining the good by valuing life over death. (Nussbaum *et al.*, 1993) On the other hand, Rawls faces significant problems by assuming the rationality of his contractors and that they are fully free, equal, and independent agents. As Rawls himself points out, the problem of individuals who are severely physically and mentally

disabled gets pushed out of the realm of justice. Nussbaum points out the further implication that this erases the additional burdens of individuals, most often women, who provide care for the disabled. Rawls's assumptions and starting point also put aside the pressing reality that as human life expectancies become longer, the periods of dependency on other human beings will occur more frequently and for more extended time-periods at the end of the life course. In any case, eschewing Rawls's approach to such matters, Nussbaum addresses the objections that her CHCs constrain the good by being imperialistic or paternalistic.

212. Nussbaum could reply that the list is neither a final nor a complete account, but the necessary minimal account of activity and opportunity in a human life. If, however, critics believe that the list of ten CHCs could force individuals to be and do what they would not choose if they were fully free and independent, rational agents, the charge may have some impact. Nussbaum's commitment to liberal principles leads her to argue that the list of ten CHCs does require making negative judgements on certain practices and beliefs which violate the equal respect and concern for individuals. The ten CHCs, at the least, allow people to have a real choice in deciding whether to limit some of their own capabilities, and preserve an exit option from situations where their capabilities are limited.¹² (Nussbaum, 2000: pp 91-96) Moreover, certain functionings-achievements may require collective provision, or public goods, thus it is forthrightly admitted that there will be some areas where individuals do not have control over the exact mechanisms or processes of achieving functionings.

213. Aside from the prevalent criticisms that the capability list is perfectionist or that it constrains conceptions of the good, a secondary criticism has been that the list does not prioritize among the ten capabilities. Going against the received view that any list of moral goods that are to be provided are to be ranked, Nussbaum vehemently asserts that the ten capabilities are not open to trade-offs. (Nussbaum, 2006: pp 166-167) Every single one of the ten capabilities is an important aspect of a dignified human

¹² Bryan Turner also emphasizes the importance of an exit option. See p.8 (Turner, 2006)

being, and the foremost social goal is to ensure every citizen is above the threshold for each. She is clear, however, that the entitlements provide political principles only up to the point where all citizens achieve various thresholds of basic human capabilities. Perhaps, ranking of capabilities is required or compatible with a theory of justice above the thresholds. Where not all capabilities can be supported, perhaps in the short term, on the path towards full support, it should simply be recognized that justice is not yet being done.

214. Nussbaum's ten CHCs, as they partly provide a source for political principles for a pluralistic liberal society, are meant to serve as the basis of national constitutions. (Nussbaum, 2006: pp 69-81) They are meant to establish one of the central purposes of governments. And, as it is not meant to be a complete list, content could be added based on local values as long as that they do not violate the existing CHCs nor seek to undermine the equal dignity and worth of every citizen. This shows, contrary to criticisms of the CHCs as constraining the conception of the good or being intolerant of cultural diversity, that within justifiable constraints, the minimal conception of social justice is open ended. Furthermore, aside from providing the political principles for domestic governments, the list of basic human capabilities is aimed also to provide coherence and philosophical justification for international human rights law. Nussbaum has argued that because the CHCs are derived from a conception of a life worthy of the dignity of a human being, it is a species-wide conception. Duties and obligations in regard to supporting basic capabilities of non-compatriots would be more expansive than today and what is being advocated by modern social contract theorists, but still less than what would be required within national borders. (Nussbaum, 2006)

215. **Section IV: Two Objections to CA**

216. This brief discussion should now make it possible to understand that in terms of the CA, a person's single instance of being or doing is really inter-related and inter-dependent with numerous others in a causal chain of well-being and agency functionings; any of which may have been directly or passively achieved. A person has a capability to exercise a functioning when

she has either control over the process to achieve or passively realizes the functioning. The repeated emphasis is on the importance of individuals having real opportunities to achieve functionings, and a meaningful breadth of choices of functionings opportunities. For Nussbaum, 'meaningful' and 'breadth' are determined by the sufficiency of threshold levels of the content of the ten capabilities.

217. Someone either misunderstanding the CA or mounting an objection could say that a profound flaw in the CA is that it considers someone to have a capability whether or not they have control over the process of realizing the capability. In essence, such an attack directed at the Senian CA would be that if a capability is understood as the combination of four vectors, then the 'achievement' vectors could compensate for the freedom vectors. Thus, 'achievements' which can really just be social inducements of certain well-being or agency functionings would still be considered as the person having capabilities. Another objection could be that even if the CA asserts stringent criteria for determining which functionings can be induced, just the privileging of certain capabilities over others is still dangerous. Social arrangements can go a long way to encouraging or supporting certain kinds of beings and doings without actually forcing or inducing an individual directly to be and do certain things. It is this aspect of the CA that Dworkin finds frightening. (Dworkin, 2000 p302)

218. Against this criticism of the Senian capability device, one may also be able to better appreciate the almost automatic response to Nussbaum's ten CHCs as being oppressive, or illiberal. Surely, given incommensurable conceptions of the good, conflicts in values, and necessity for respecting diversity in the contemporary world, identifying ten personal features that every human being must be able to be and do is patently illiberal? Against such a broad brushed criticism, Nussbaum mounts a strong defence of her list of ten CHCs. Her conception of a person which she has in mind with those ten capabilities is not very different from the implicit conceptions in competing theories including in Rawls's theory, and perhaps, even Dworkin's. (Dworkin, 1993; Dworkin, 2000) Moreover, paternalism and coercion are both unavoidable in organizing large and complex societies, and come to the

forefront almost immediately when considering health concerns. (O'Neill, 2002c; O'Neill, 2002a; O'Neill, 2002b; Nuffield Council on Bioethics, 2007) Furthermore, objective assessments and public deliberation on the content of capabilities, including which will require the inducement of functionings, the identification of levels, and so forth are meant to be constrained by the overarching respect for dignity and moral worth of human beings. Inducing people into being and doing certain things that undermine their dignity and calling them achievements would be unacceptable within the CA. Engendering choice and opportunity to reason in all aspects of life plans is central to the notion of human capabilities in the CA and Nussbaum's CHCs. Of course, the possibility of abusing the language and ideas of the CA surely exists. Just as rights language can become just a shell for asserting interests, so the language of CA also has the potential to be abused. Such potential for abuse is not necessarily a fatal flaw.

219. A second objection to the CA comes from exactly the opposite direction. G.A. Cohen argues that Sen and the CA privilege the 'freedom to achieve' more than the actual achievements. (Cohen, 1989) Do we care about individuals having freedom to achieve more or equally as much as the individual achieving the functioning; even some basic functionings? Cohen argues that emphasis on freedom more than achievements makes the CA too 'athletic,' and proceeds to develop his theory of entitlements to 'mid-fare'. Mid-fare includes some objective functioning achievements advantageous to human beings as they pursue their own ends. While Cohen's critique has been addressed by Philip Pettit who points to the CA's recognition of 'passive empowerment' or inducement of functionings, there is still a meaningful question regarding the space between a person possessing the capability and actually achieving the functionings. Nussbaum is much more forthright in identifying the persuasive role of moral education, restrictions on letting functionings wither, and direct inducements to close this space between availability and achievement. But given the CA is centrally motivated by human deprivation, and such pressing concerns as the deaths of millions of individuals due to health threats such as HIV/AIDS and other preventable causes, does the CA sufficiently balance our value of both the freedom to

achieve and the achievement? Though the CA has achieved success in expanding the focus of economic and justice theories to include human capabilities, the CA's advocates have not yet begun to fully consider the theoretical and practical issues in the self-realization of capabilities and the process of choosing to exercise capabilities and functionings. Sabina Alkire's research offers one of the first documented efforts at the praxis of the CA. (Alkire, 2002b)

220. Provided the previous discussion has been a sufficiently general review of the CA, some of the cutting edge issues for the CA include the following. Thomas Pogge picks up on the foremost question for the CA namely, which capabilities? On the one hand, Sen has repeatedly talked about certain capabilities as being basic, or even asserted the priority of liberty. Nevertheless, there is uncertainty to how Sen supports the idea of capabilities beyond their use in making comparisons about the quality of life of people in the 'primary goods space'. He has recently tried to ground human rights in the capabilities framework, showing his interest in asserting capabilities as universal entitlements. (Sen, 2004c) On the other hand, Nussbaum strongly asserts that the list of ten CHCs should be ensured in their entirety, and are applicable to all members of the human species. However, the process of justification or achieving reflective equilibrium on the list is not delimited in any way. The open-ended process, and its occurring at a global level, striving to achieve global overlapping consensus, seems to make the justification only tentative, if it could be fully achieved ever at all. Given that reflective equilibrium is not just an affirmation process, but a truly dialectical process, there is no assurance that the list we have now is the one that will achieve overlapping consensus. So how will Sen, Nussbaum and others committed to the CA proceed in identifying the content of capabilities?

221. A related point to the content of capabilities is the question of measurement and weights. Sen identifies multiple dimensions or vectors for each capability, but there is still a lot of theoretical and empirical work to be done on developing methods to measure these dimensions. It cannot be overstated how important measurements are, given that what we measure has to reflect exactly the importance CA gives to distinguishing between

effective freedom and functioning-achievement as well as well-being and agency. Some progress has been made by Alkire in her research on the multi-dimensionality of capabilities and development of a variety of measurement tools. (Alkire, 2002a; Alkire, 2005a) Nussbaum on the other hand, avoids the four vectors approach and distinguishes only between capabilities and functionings. (Nussbaum, 2000: p 14) She believes that such a distinction is sufficient to handle the various aspects of effective freedom the CA is concerned about. However, such a version may be even more difficult to measure given the greater room for interpretation.

222. A second measurement question pertains to weights given to different capabilities. That is, how does one rank different capabilities not only in terms of lexical priority, but with different weighting to better capture how much more or less important a capability is than the one below or above it. For Nussbaum, this problem is simple as she vehemently rejects the separation or selecting out certain capabilities from the ten CHCs. All the CHCs must be provided to every human being. However, asserting that all ten CHCs must be present does not mean each has to be present in the same amount or weight. The capability for play must be present, but does it have to be present in the same 'amount' as the capability for bodily integrity? But even more problematic is that the ten CHCs are not singular, unidirectional functioning. Every embodied functioning is a complicated, iterative set of functionings and capabilities that can keep being peeled away all the way down to the processes at the sub-molecular level. So the question of measurements and weights is a concern not only at the level of ten capabilities but also within each capability. Interestingly, though Sen's arguments for capabilities does not directly go to the weights issue because he does not identify any particular capabilities as valuable, he has nevertheless, expounded on the difficulties of measurements, particularly in reference to health capability. (Sen, 2001a)

223. Considering content, measures and weights of capabilities goes directly to concerns about implementation. While it is true that the CA has been the basis for measuring quality of life such as in the United Nations Human Development Reports, aside from references to the theory, the actual

use of the concepts have been fairly minimal. Moreover, the articulated aim of the CA and ten CHCs as possible basis for international human rights law and national constitutions is ambitious. But how one gets there is unclear. The hurdles range from the complexity of the theory, and the lack of overlapping consensus, to the issues in realizing political theory, more generally. And perhaps, even more foundational to implementation is the question of whether the CA is an approach to evaluating quality of life, is it a partial theory of justice, or is it still developing into a full theory of justice? Indeed, for Nussbaum, the ten CHCs are a moral minimum making it a partial theory of justice. Nevertheless, she argues, achieving the moral minimum for every human being is such an overwhelming task that it is not a weakness to defer identifying whether equality of full capabilities or some other social goals come next.

224. Still, the place where it supposed to have the most relevance, or have the most moral force, is in developing countries. The advocacy for entitlements that governments must provide in locations where there is a weak or non-existent state seems to require more thorough consideration. As some philosophers frequently assert, ought implies can. If there is no state or functioning social structures to speak of, a list of entitlements becomes just a list. Of course, Nussbaum argues that functioning states have obligations to realize the ten CHCs of human beings outside of their societies. But, given how the ten CHCs identify a sufficiently comprehensive account of how the society should be functioning—what each individual should be able to be and do—foreign assistance will have to involve the actual formation or possible profound transformations of individuals and societies. This is hardly just the discrete transfers of resources to build structures or mitigate threats. Engendering basic capabilities may be the most significant and thoroughgoing kind of foreign intervention imaginable, far more involved than even the Marshall Plan. (Behrman, 2007)

225. **Section V: Conclusion**

226. Needless to say, this discussion has only been a cursory introduction to the CA. The two creators and others have written numerous books and analyses on the approach. It would be unwise and redundant to attempt to

explain it better in a few pages. Rather than recapitulate the history and content of the CA, the main purpose of this chapter was to provide the background for the CH argument which can be seen as a hybrid argument. It brings together the analytical structure of Sen's CA and the entitlement-causal theory with Nussbaum's CHCs that are grounded in a conception of human dignity and give rise to pre-political moral claims for social support. Sen's refusal to identify any basic capabilities precludes using his conception of capabilities for a species-wide conception of human health. No capability, or a minimal account of a life and the good, can be thought of as being shared across every member of human species. In contrast, Nussbaum's fully evaluative conception of human life form and its grounding in human dignity provides justifiable entitlements for every member of the human species. (Nussbaum, 2006: p181-183) But Nussbaum does not ground her central capabilities in any causal theory. Chapters 1 and 2 were aimed to show how Nussbaum's ethical argument fits in with the existing debates on the philosophy of health as well as explicate a theory of causation and distribution of health capability that is more coherent than existing theories in epidemiology. The next chapter discusses the CH argument and shows how it brings together Sen's analysis of the causality of capability sets and the capability device itself with Nussbaum's content and justification for central human capabilities and functionings.

Chapter 4: CA and CH

227. The capability to be healthy (CH) describes a person's ability to achieve and exercise a cluster of basic capabilities and functionings at a level that constitutes a life worthy of equal human dignity. Making use of Nussbaum's conception of CHCs, the CH can be usefully understood as a 'meta-capability' to achieve or exercise ten CHCs. These ten CHCs are a minimal conception of a fully human life, that provide the basis for determining the decent social minimum of entitlements in the relevant parts of an individual's life. (Nussbaum, 2000: p 75) Nussbaum asserts that basic capabilities of human beings 'are sources of moral claims wherever we find them: they exert a moral claim that they should be developed and given a life that is flourishing rather than stunted'. (Nussbaum, 2006: p278)

228. The ten basic, inter-dependent and iterative capabilities reflect biological functionings of the human organism, or 'human nature', as well as include other functionings which reflect the neediness, sociability and capacity for ethical reasoning of the human animal. It is a fully evaluative and ethical conception of the human being. A person who has all the ten CHCs, each above a certain threshold level, has a life of activity and opportunity that represents a life that is fully human. It is clearly not a conception of a barely human life, or that of an ideal human life. It is a notion of a human life possessing a sufficient level of opportunity for achieving reasonable and diverse conceptions of the good life. (Nussbaum, 2006: p182)

229. Thus, health understood as the CH, or a meta-capability to achieve CHCs, is an assessment of a set of opportunities and activities of an embodied human being pursuing life plans in contemporary global society. It is not just an assessment of the functionings of a biological organism or characteristics and claims of an idealized moral agent. Minimal human

dignity reflected in the breadth of the ten CHCs, and in the notion of threshold levels of each CHC, provides a species-wide standard for human health. Such a standard is also a source of moral claims for every member of the human species for social support. That is, a pre-political commitment to the equal respect of dignity of every human being entails supporting a sufficient level—commensurate with minimal dignity—of a CH produced by the interaction of unique features/needs, conversion skills, material goods, and social conditions. Such support works through the social basis of the CH, or more accurately, the social basis of each of the causal components of the CH.

230. The compulsion to whittle down the components of a CH to some 'core' biological, statistically normal, 'species typical,' or perhaps, culturally relative capabilities and functionings should be resisted from the start. Human health viewed as a capability and grounded in the respect for human dignity and equal moral worth has more coherence, and is more robust in assessing the empirical aspects of human mortality and impairments, than is the commonplace understanding of health as either the absence of disease or as total well-being. (Boorse, 1975; Boorse, 1977; Khushf, 1987; Lafaille *et al.*, 1993; Boorse, 1997; Nordenfelt *et al.*, 2001a) The absence of disease model, despite being the background conception in contemporary health sciences, relies on a notion of statistical abnormality that is not 'value-free' as claimed and exhibits many defects in theory and practice. (Nordenfelt *et al.*, 2001b) And the total well-being notion is grounded in a crude perfectionist account of human life, and often summarily dismissed as being a purely aspirational idea. (Lafaille *et al.*, 1993) In contrast, as argued in Chapter 1, a coherent conception of human health is best conceived as being able to achieve certain vital goals; to acquire and exercise a cluster of basic capabilities and functionings that constitute a life of activity and opportunity worthy of the dignity of the human being. Nussbaum's CHCs or conception of minimal human dignity provides a defensible set of such basic activities and opportunities as well as limits the conception of CH from becoming too expansive such as the notion of health as complete physical, mental, and social well-being. The idea of a meta-capability to achieve CHCs allows for

the jettisoning of the narrow focus on impairments of biological functionings while preserving the demarcation between health and complete well-being. To be healthy is to have a sufficient level of capabilities to pursue life plans in contemporary, global, society with equal human dignity.

231. **Section I: Health and CA**

232. The argument for the CH is partly motivated by the need to address the CA's currently ambiguous conception of health capability. Reviewing the existing CA literature produces the impression that CA advocates understand health capability as largely referring to biological functionings and diseases as 'un-freedoms' or constraints on health functionings. The CA literature is centrally concerned with premature mortality and restrictions on freedom by impairments. The idea of health as being coextensive with the absence of disease predominates, and the CA's response to such health un-freedoms is currently biased towards economic analysis and interventions addressing gender equality and micro-credit, or community development and economic development. (Alkire, 2002b) If the CA continues to accept the prevalent conception of disease, and existing disease categories, it becomes open to the same criticisms that are levelled against those advocating health as the absence of disease model. At the same time, both Sen and Nussbaum are very aware of the place of subjective experience of pain and anguish in ethical reasoning. Because they both recognize that subjective experiences or preferences can be adaptive, they would not want to rely on subjective experience to wholly determine the concept of health or subsequent claims. So there is a need for the CA to find a conception of health capability that does not rely on health as absence of disease notion and one that avoids purely subjective notions. A purely objective notion of health also has to be rejected because it is impossible to define health as an objective notion and besides, subjective well-being should have some part in assessing a person's health. A person's health cannot be evaluated without any consideration of how the individual feels about her own functionings.

233. Nussbaum includes the ability to live a normal life span, be healthy, and have bodily integrity on her list of CHCs. Given the importance of such capabilities as all purpose means, Nussbaum questions why Rawls did not

put the social basis for health on the list of primary goods, just as he included the social basis for self-respect. Nussbaum reasons that Rawls thought of primary goods as being fully external to the individual; they are all goods that the social structure can provide. Because health is not wholly determined by the social structure, he did not include it on the list. Rejecting the notion that entitlements can be only to completely external goods, Nussbaum argues that the social basis for natural goods such as health and imagination can also be listed as entitlements. (Nussbaum, 2000: p89)

234. In responding to what the capabilities consist of or what the priorities should be, Sen has often replied that it depends on the situation, or what is being assessed. But it seems to be that whatever comparisons are being made across people, the capability to be alive which includes some basic somatic and psychological functionings has to be the basis for all other capabilities. Nussbaum brings the concern for the embodied aspects of human beings to the forefront by the use of the Marxist idea that human beings are firstly needy and social beings. She agrees with Sen and Rawls that liberty is important and should not be denied for advancing economic capabilities, but she does not prioritize her list of central capabilities. Guaranteeing all ten capabilities would mean that human beings are alive and be able to participate politically. In fact, she argues that when it comes to health, which is predicated on being a human life form, there might be enough justification to push through to realize some functionings for all human beings.

235. The CA, aside from references to premature mortality, must include a more explicit and coherent conception of health. Without the concept of the CH as presented here, health related capabilities pose a significant conceptual challenge for both versions of the CA. Indeed, there have been some modest attempts at discussing capabilities in relation to the subjective and objective aspects of defining and measuring health status, and the legitimate extent of paternalism. Both Sen and Nussbaum's concern with being able to make comparisons of quality of life, and Nussbaum's conception of CHCs as the foundation of political principles, are centrally focused on the deprivations experienced by human beings, particularly the

worst kind experienced by poor women in poor countries. The CA literature often refers to specific deprivations affecting somatic functionings such as immobility, hunger, or impairments from disease, and so forth.

236. Both Sen and Nussbaum have indeed referred to human health concerns in terms of capabilities. Sen has suggested such a capability through various examples of health functionings. And Nussbaum has explicitly identified a capability to be healthy among the ten CHCs. However, the writings of both create much uncertainty about the content of a capability to be healthy in either of their versions. An example from each may elucidate such an assertion. In the monograph *Inequality Re-examined*, Sen contrasts the subjective welfarist understanding of well-being with the 'well-ness' of a person understood as the achievement of a set of interrelated functionings that can include 'being adequately nourished, being in good health, avoiding escapable morbidity and premature mortality, etc...' (Sen, 1992 p.39) Looking beyond his concern to distinguish between well-being and wellness, his listing of being healthy as a separate functioning from being adequately nourished and avoiding morbidity and premature mortality is confusing. Lest this is seen as a one-off instance of ambiguity, Sen's vehement refusal to identify any 'core' or 'basic' capabilities has meant that there has been a lack of comprehensive evaluation of any single capability aside from the use of examples to buttress the general arguments for the CA in various areas of social concern. (Sen, 1998a; Sen, 1999a; Sen, 1999c; Sen, 2002a; Sen, 2002b; Sen, 2004b) Important for the present for CH, Sen's refusal to identify any basic capabilities also means that his version of the CA cannot provide a species-wide conception of health. Like Nordenfelt, Sen offers only an empty set of capabilities. Health capability will be whatever different societies choose to include as being basic through public deliberation.

237. In contrast, Nussbaum provides the most thorough discussion so far of the capability to be healthy persons in *Women and Human Development*. (Nussbaum, 2000 pp. 70-96) However, she too leaves a lot undone. In that exposition, Nussbaum points out the need to determine which health functionings should be induced, rather than just ensuring the capability, as well as what threshold levels of various functionings must be achieved in

order to be considered adequate. Nevertheless, she defers that important discussion to a future legislative stage and public deliberation. (Nussbaum, 2000,p 91) Even if all ten capabilities are important for Nussbaum, it is hard not to notice that life and health are still listed first and second on her list. Such covert priority can be avoided or reduced if and when the CH is understood as an assessment of the entire cluster of basic capabilities, as it is done here.

238. Nussbaum's partial theory is commendable for making physical and mental impairments of human beings a central concern of the basic principles of justice. She emphasizes that taking into account the interests of severely impaired individuals at the first stage of ethical reasoning on basic principles will result in substantive guidance for the basic structures of society rather than cursory accommodations. But she does not go further and consider the implications for such first principles that would result from integrating the most current research, debates and theories of causation and distribution of health functionings. The health functionings she does outline should be understood as just referring to avoidance of disease. She does not seem to have yet considered more fully the current debates on the determinants and distribution of human impairments and mortality or the epistemology of the underlying individual biomedical model of disease causation. Her writings on capabilities seem to take the concepts disease and health as given. Given that health institutions are equipped with necessary but often abused powers of coercion and paternalism combined with the remarkable research on social determinants of health constraints/inequalities, providing only a rough outline of a capability to be healthy, while asserting its centrality to human life and dignity, leaves far too much work undone.

239. One implication of giving more consideration to health capability, which is particularly relevant to Nussbaum's approach, is that in light of the recent social determinants research and global experience with new and resurgent infectious disease epidemics, ensuring the social basis to even just a sufficient threshold level of health capability for every citizen will require a stringent and irrevocable commitment to certain basic social arrangements. Nussbaum conceives her list as being a source of political principles up to

the individuals reaching certain thresholds of capabilities. Social determinants research shows that even above a threshold level of material sufficiency, social inequalities in such things as control, stress, and respect in the workplace have influence through psychobiological pathways. Thus, there will be a need to permanently regulate or prevent certain social inequalities in order to prevent or mitigate resulting inequalities in health capability. That is, some kinds of social inequalities across individuals and groups should not be allowed even after every individual has the minimum level of central capabilities. This leads to discarding the possible notion of a minimal conception of central capabilities as a water-level mark that needs to be reached through provision of minimal material goods and social conditions. Rather, whatever the level of material and social conditions, ensuring a minimum set of CHCs means that certain kinds of social inequalities cannot be allowed for they will always threaten to undermine minimum thresholds of CHC or CH. This understanding of social determinants are being possible permanent threats to human capabilities casts doubt on Nussbaum's openness other possible schemes of social justice, such as Rawls's theory, after achieving certain threshold levels of every citizen. Instead of levels being reached, perhaps a better conception is to think of a society as system. A more thorough appreciation of the causation and distribution of the ten CHCs in light of social determinants research will more than likely mean that some of the stringent requirements for or against certain social conditions under a threshold capabilities regime will have to be permanent features of societies, or any theories applicable above the thresholds.

240. **Section II: The Capability to be healthy**

241. The CH and each CHC are formed and influenced by the independent, interactive, and iterative processes that make up a person's unique internal features/needs, conversion skills, extant material goods, and social conditions. As described in Chapter 2, this causal model of the CH coherently reformulates the biomedical model of disease causation which posits the causal factors of 'health' as genetic endowment, individual behaviour, and exposure to pathogenic materials. Such a model actually

identifies the causes of health constraints, and even then, excludes social causes. The present CH model is also more explicit about and focused on causation of capabilities than Nussbaum and her classification of capabilities as being basic, internal, or combined. (Nussbaum, 2000: 84-86) Her analysis of capabilities as either being naturally endowed ready to function, or requiring various kinds of external material and social support is too causally simplistic. Such a descriptive model also creates too firm a distinction between personal features and external material and social conditions. When examining health functionings in particular, given the growing recognition of the psychological pathways between external social conditions and complex internal physiological processes, a firm distinction between internal and external may need to be less emphasized. In any case, for a person to have a certain level of CH, all four components— personal features/needs, conversion skills, extant material goods, and surrounding social conditions—must sufficiently interact to create practical possibility to achieve each CHC up to or above the specified thresholds. The differential distribution patterns or asymmetrical achievements of the CH across individuals can be explained by individual diversity in each of the four causal components—in the differences of how individuals are uniquely ‘constructed and situated’.

242. Nussbaum’s ten CHCs are grounded in a freestanding conception of human dignity and thus, because the CH is seen as meta-capability to achieve these ten CHCs, so too is the present conception of the CH. Nussbaum argues that every human being has claims to social support arising from the dignity of the human being as an inherently ‘needy temporal animal being’. (Nussbaum, 2006: p160) Furthermore, for Nussbaum, there is importance in recognizing the difference between capabilities as instrumental to achieving a life with dignity versus capabilities creating dignity within ‘areas of life human beings typically engage’. (Nussbaum, 2006:161) By pointing to such a subtle difference she wants to establish a theory of the good prior to any social agreement or political principles. An instrumental notion of capabilities would make her theory similar to contract theories that build structures to distribute valued goods. By intertwining a conception of human

dignity and central human capabilities without one being prior to another, she is able to argue that a life worthy of human dignity gives rise to pre-political moral entitlements to the central human capabilities. Because capabilities and dignity are mutually constitutive, the list of CHCs is a freestanding theory of the good. (Nussbaum, 2006: 160-164) Such an account of the CHCs is thus enormously helpful for an argument for the CH because it also allows for a species-wide conception of human health. Every member of the human species is covered under such a conception and it identifies the bases of a moral entitlement prior to any social contract or other types of political agreements.

243. Admittedly, the argument for the CH is grounded in a concept of dignity and the related ideas of sufficient and equitable capabilities that need to be discussed more thoroughly than they are here. Indeed, the concept of dignity used here relies on Nussbaum's conception which in turn, may not be adequately represented here. The argument for the CH relies on the coherence of Nussbaum's reasoning on dignity as presented in *Frontiers of Justice*. And it is hoped that in the future, a concept of human dignity related to physical and mental vulnerability to ground the CH can be developed more fully reflecting the work of others including Richard Sennett, Bryan Turner, and Elaine Scarry. (Scarry, 1985; Sennett, 2004; Turner, 2006)

244. But more presently, an individual's CH should be understood to be dynamic. Most often, the CA literature presents a capability as a static attribute of a person, or as a simple unidirectional process moving from capability to functioning achievement. In contrast, a person's over-arching CH or a particular CHC may be more accurately understood as a dynamic and iterative system made up of the four causal components of individual endowments, conversion skills, extant material goods, and surrounding social conditions. At any given moment and over the life course, each of the ten capabilities and the over-arching CH is continually in flux, being shaped by dynamic processes underlying each causal component. Processes occurring at various levels ranging from biological processes at the sub-molecular level within the person (endowment) to the political and economic processes at the national and global level (material and social conditions) constantly influence

the capabilities of individuals. The relative influence of each causal component on a person's CH is specific to each individual and constantly changing over the life course. That is, national economic policies may constrain the CH of one individual as much or even more than the constraints produced by genetic endowment in another. And the individual's conversion skills and volitional choices affecting functioning achievements may expand or contract at different points in her life time.

245. Acknowledging the dynamicity and differences in causal components across individuals and the fact that the CH is ever-changing over the life course brings to the forefront the need to consider in more detail the concept of thresholds. A minimal standard of dignity is profoundly helpful because it provides a metric to compare capabilities across individuals and over time. But in fact, identifying a single standard over the life course of one individual or across different individuals of the same or different ages, sexes, economic positions, abilities, talents, ambitions, and so forth is a daunting endeavour. The theoretical idea of a common standard is useful, but practically it has multiple dimensions. (Sen, 1998b; Sen, 1998a) Nussbaum provides a more detailed argument that the respect for the equal moral worth or ensuring minimal dignity of individuals entails 'supporting' or 'providing' threshold levels of each CHC. Entitlements to such social support or provision are not to the achievement itself, most often, but to the social basis of each capability. (Nussbaum, 2000: 81-82) So far, Nussbaum only provides various examples of possible social basis of particular CHCs such as adequate nutrition, education of the faculties, protection of bodily integrity, and so forth. (Nussbaum, 2006: p278) Her version of the CA has not posited a model of causation of CHCs, and the identification of the breadth of social basis, along with the exact levels of each CHCs are under-described or deferred to a later stage and expertise of various professionals. Such openness is partly due to the need for public deliberation and engendering the possibility of achieving global overlapping consensus on the list. (Nussbaum, 2006: 291-295) Though such openness to public deliberation is necessary, there is still much theoretical work to be done to integrate the

concept of CHCs with a coherent conception of health, and theories of health causation and distribution.

246. The present argument for the CH pursues the line that the entitlement to each capability should be understood as the entitlement to the social basis of each causal component. And providing or supporting threshold levels of CH entails social action through influencing the social basis of the causal components of each capability. That is, protecting, promoting or restoring the CH of individuals to adequate levels is realized through the justifiable influence on personal features/needs, conversion skills, extant material goods, and surrounding social conditions. Furthermore, the range of agents with obligations to protect, promote or restore the CH of individuals to the specified level, and the extent of their obligations will depend on how they stand in relation to the causes, consequences, and distribution patterns of CH achievements and failures. For example, Onora O'Neill has written on the need to expand the breadth of relevant agents and obligations in light of individuals living where there are failed nation-states and where health threats cross national borders. (O'Neill, 2002b; O'Neill, 2004b; O'Neill, 2004a) Thomas Pogge's recent arguments for negative, positive, and intermediate duties may also be useful to map obligations of agents in relation to the causes, consequences, and distribution patterns of CH. (Pogge, 1989; Pogge, 2001; Pogge, 2002b)

247. The argument for a sufficient level of CH does not in fact, produce an easy or single, uniform standard. Minimal dignity will be commensurate with different levels across ten CHCs. Even then, the breadth of social basis, and the extent of justifiable intervention into those social basis of different causal components of each CHC will vary across persons. For any society, ensuring the CH of citizens means the assessment of the multiple dimensions of causes, consequences, and distribution patterns of CH achievements and failures. The response will require varied actions to protect, promote or restore the CH of individuals to sufficient levels.

248. In contrast, the prevalent discussions on possible justice claims related to health often quickly turn to the distribution of healthcare. Sometimes, they extend to the provision of 'public health' goods such as

sanitation, potable water, food safety, and so forth. (Daniels, 1985; Kass, 2001; Kass, 2004) However, in the context of rich countries where clinical healthcare and public health goods and services are abundantly available, it is perhaps more readily apparent than in poor countries that avoiding premature mortality and impairments requires material goods such as healthcare as well as having control over one's body and behaviour. For example, when considering the spread of HIV/AIDS it becomes easy to see that in the absence of an HIV vaccine, avoiding infection requires having control over one's body and behaviour over the entire life course. Prior to global experience with HIV/AIDS and the women's health movement, it was commonplace to think that healthcare is necessary and sufficient to address health concerns. Now, in the face of new and resurgent infectious diseases and research findings on social position and causes of chronic impairments, it is more readily acknowledged that over the life course, and in different physical and social environments, commodities and 'autonomy' and 'agency' can both be crucially important. For example, the ability to directly secure food becomes much more important as one gets older than when one is an infant being cared for by another person. Or, a person who has full access to clinical care may still need refuge away from physical abuse at home.

249. Such examples show that the focus only on goods, whether food, clinical care or something else, would only protect health functionings during some of the time periods in the life course. Individuals require autonomy and agency both to ward off avoidable physical threats as well as to seek out resources to achieve, maintain, protect, and restore their own physical and mental functionings. This need for a mix of material goods and supportive social conditions for autonomy is reflected in the causal model of the CH. Autonomy can be thought of as part of conversion skills component of the CH.

250. The importance of a person's abilities to act in addressing health concerns can also be shown in the Senian vector-idea of a capability. When a well-being functioning such as achieving internal immunity from a vaccine is not possible, then agency functionings become much more important in the protection of health functionings and indeed, all other capabilities. That is, for

example, if direct beneficial immunity through a vaccine cannot be induced then abilities to be vigilant against exposure to infection become more important. Even when a vaccine is available, agency functionings can still be important in order to identify its availability and in procuring it. Perspectives which focus only on producing well-being functionings such as immunity through 'vertical-health programmes' or other healthcare goods aim to bypass inadequacies in agency functionings/ conversion skills. The causal components of conversion skills, material goods, and social conditions are thought to be 'distal factors' of health functionings that are outside the purview of health sector interventions.

251. It has been repeatedly argued that the needs for different types and amounts of commodities will vary across individuals, and over the life course. And the abilities to convert commodities into health functionings will also vary across individuals and over the life course. Not only can internal biological processes require different amounts of the same commodity among two individuals, they may also differ in their immediate abilities to reach for, ingest, apply, or inject the commodity. This amounts to a difference in converting available resources into functionings. Importantly, individuals may also directly suffer from the provision of a standard amount or type of good when their particular individual needs and conversion skills are not sufficiently taken into account. It is quite common for public health policies applying a maximization approach to improving health achievements to accept that some individuals will suffer negative consequences from being providing a standard public health good. For example, government programmes which promote or require the use of particular contraceptives without taking into account the unique needs of individuals may induce temporary or life-threatening consequences. When that occurs, the justification that the benefits to many outweigh the burden of the few shows that the individuals that suffer have not been treated as their own ends, or as a bearer of equal moral claims to a CH and equal dignity.

252. The maintenance and protection of CHCs of individuals in different places and times requires addressing threats in the environment that cannot be undertaken by a single individual or small group. That is, the required

capacity to ensure the CH may be greater than that of any single individual. And, protecting individuals against certain kind of health threats sometimes requires the social provision of protection for all individuals. Maintaining safe water supply, immunizing schoolchildren, and engaging in epidemiological research are some examples of the social provision of public goods aimed to ensure the capability to achieve health functionings of groups of individuals. And in certain places and times, protections of health functionings may require direct inducement of certain biological functionings such as producing herd immunity to particular infectious organisms through vaccinations. Protecting the capabilities of people through the provision of public goods can be seen as realizing 'passive' agency achievements of individuals. (Pettit, 2001; Sen, 2001c)

253. If the causal pathway to the functioning, or the method to avoid an impairment is not fully known, the claim to the social basis can entail claims to further research. How? Because social justice aims for the sufficiency and equity of capabilities among individuals. When individuals are constrained by impairments that cannot be mitigated or prevented, they are constrained from pursuing the beings and doings of a richer human life. In Nussbaum's conception, they are being denied a fully human life. In Kamm's words, they are restricted from fully experiencing and enjoying life's experiential goods. Moreover, inequalities in CH across individuals unavoidably results in inequalities in many other capabilities or areas of life. Health capability and functionings determine the worth of other human capabilities. While respect for equal dignity would point to addressing avoidable causes of inequality in the CH, the value to a human life of having all the basic capabilities, and preserving the worth of all capabilities, drives the research in how to mitigate impairments with unknown causes. Thus, social and medical science research into causes of impairments constitutes part of the social basis of capabilities.

254. The CH argument is centred on the conception of human dignity as partly arising out sociability or desire to live amongst other human beings in reciprocity and respect. However, it is important to recognize the vulnerability to impairments or premature mortality as a direct result of

engaging in social cooperation. The moral relevance of the direct vulnerability to impairments from being among other human beings has been surprisingly under-considered by political philosophers. When one assumes away or excludes health issues in theorizing about basic principles of social justice, health threats which arise only and directly because of social cooperation are understandably going to become invisible. Yet, the threat of infectious diseases only arises when there are a sufficient number of other human beings around to sustain the propagation of the infectious organism. And, in such a case, the achievement, maintenance, protection, and possible restoring of CH of an individual is unlikely to be fully achieved by the individual acting alone. The predominant focus on individual behaviour and volitional choices in dealing with vulnerability to infectious diseases fundamentally underplays the social basis of vulnerability to infectious diseases. Additional vulnerability to impairments and mortality arising directly from social cooperation must be thought of as another 'burden' in distributing the benefits and burdens of social cooperation. The CH argument is able to recognize such vulnerability through the social conditions causal component.

255. Furthermore, Chapter 2 described the growing understanding of social determinants of health research. Social inequalities in the psychological experiences of individuals such as stress, social support networks, income inequality, discrimination, and hopelessness produce differences in health capability. A life that is made up of few choices and which is lived in an unsupportive or unresponsive environment leads to the impairments of basic biological and psychological functionings. An organism that is stressed becomes vulnerable not only to a specific impairment but becomes generally more prone injuries and accidents as well as to pathogenic organisms. The CH presented here is able to capture both the social conditions that affect access to material resources as well as the social conditions that affect individual psychological experiences.

256. Alternative ethical approaches that do not focus on capabilities either recognize claims only to achieving certain mental states in terms of pleasure production or preference satisfaction, or eschew concern for mental states altogether and focus only on the provision of resources. The CA falls

somewhere in between as resources are necessary for realizing a capability, and the mental state of a person is both a source of information and also a locus of well-being for that individual. Mental functionings or ‘beings’ are valuable achievements in a human life. Once again, Nussbaum’s cluster of CHCs proves useful for establishing the inter-dependency of capabilities and functionings, including psychological functionings. She identifies the capabilities to use senses, imagination, and thought; being able to exercise emotions; being able to form social associations, and importantly, being able to use reason. (Nussbaum, 2006: 76-77) The CHCs reflect both physical functionings and psychological functionings.

257. Section III: CH as a ‘cluster-right’.

258. In fleshing out the entitlement to the CH, or to the cluster of CHCs, it seems plausible and advantageous to argue that such an entitlement contains within it a multitude of claims, powers, privileges, and immunities. The claim to the social basis of the CH is clearly broader than being just a ‘positive’ claim to things. It is easy in the first instance, to outline an argument that the entitlement to the CH entails a positive claim to health care or other health affecting goods. Yet, the supportive social conditions causal component can also contain ‘negative’ claims against harmful physical and social phenomena. Both positive and negative claims can be far reaching and inter-related. Moreover, the emphasis on having the freedom to choose among opportunities means not only positive and negative claims but also powers, privileges, and immunities. But more work needs to be done to map out these various kinds of entitlements within a cluster-right to the diverse range of corresponding agents and their actions.

259. Judith Jarvis Thomson’s identification of a ‘cluster-right’ is very useful to flesh out entitlements to any capability in the CA, and particularly in relation to the CH as advocated here. The CH, and indeed, every capability is really a cluster of iterative capabilities and functionings. The picture of a capability as being the opportunity to achieve a functioning which then is chosen to be achieved is a simplified image that abstracts from complex processes underlying any single capability and functioning achievement. Nussbaum’s advocacy of threshold levels of CHCs also gives the impression

that a capability can be quantified and compared across individuals using a single metric. However, the causal model of capabilities put forward here shows that a single capability cannot be easily isolated from a cluster of inter-related capabilities and functionings, or easily distinguished as being a wholly internal or external capability. Each capability is constantly in flux, being formed by the iterative and interactive processes underlying personal features, conversion abilities, exposure to material goods, social conditions and importantly, the choices made by the individual. In light of the more complicated picture of a capability and its causal components, an entitlement to a capability, or more accurately, to the social basis of each of the causal components of a capability, should be understood as being a 'cluster-right'.

260. Thomson's cluster-right is a 'right that contains rights'. (Thomson, 1990: p 54-56) In contrast to the standard notion of a right as being a single claim with a corresponding duty-holder, Thomson's cluster-right can contain various combinations of claims, privileges, liberties, immunities, and powers. As a result, not all rights involve corresponding duty holders. Furthermore, equality or equity of a cluster-right across individuals, and even over a single life-course, is indeed more difficult to evaluate than a simple claim-right, but it is not impossible or novel. In fact, Thomson argues many familiar rights such as the rights to life, liberty, and property are more accurately understood as cluster-rights. (Thomson, 1990: p55, 272-293)

261. The notion of a cluster-right is latent in various aspects of the CA literature. The Senian analytical device of a capability is described as having four vectors: well-being agency, well-being freedom, agency freedom, and agency achievement. These four dimensions are said to describe plural dimensions of a capability. Continuing in that vein, one would expect that an entitlement to such a capability would be to all four vectors, and that claims to well-being and agency functioning would entail different kind of actions by various agents. For example, agency functionings can entail both freedoms from interference and also positive claims to goods necessary to act. And as Brock argues, each of these four vectors can be thought as being made up even more indeterminate number of sub-vectors. (Brock, 1995) Thus, articulating any sort of entitlement to a Senian capability would lead to an

idea of an entitlement to a cluster of multi-dimensional claims. The range of well-being and agency freedoms and achievements would require various kinds of liberties, powers, privileges, and immunities.

262. Thomson's argument for a cluster-right buttresses Nussbaum notion of CHCs by making plausible that different CHCs can each have unique thresholds, and that they do not have to be the same across individuals. The notion of a single threshold across individuals and across a life time was open to the criticism that it is impracticable or does not accurately reflect the causation of each CHC. With Thomson's cluster-right, each CHC and all the ten CHCs can be thought of as being plausible despite giving rise to different sorts of claims across each of the ten CHCs, across individuals, and over the life course. Indeed, Thomson's idea of cluster right, and its close approximation to a cluster of capabilities, initially motivated pursuing the concept of the CH as a meta-capability. And Nussbaum's ten CHCs, when more thoroughly considered, are not seen as being distinct but as an inter-related cluster of basic capabilities. Thus, Thomson's cluster-right and Nussbaum's ten inter-related capabilities work well together. The causal model of a capability and the idea of a cluster-right give the argument for ten CHCs more integrated conceptual grounding.

263. **Section IV: Kamm and capabilities**

264. There is an alternative path to arriving at a conception of the CH instead of directly from Nussbaum's CHCs and notion of dignity, or from Nordenfelt's argument for achieving vital goals. For any person, being alive can be inherently valuable, while staying alive can also be crucially important to pursuing any possible conception of life plans. The moral force of such bland statements may become more apparent when death is seen in terms of the loss of the 'goods of life'. By goods of life Frances Kamm refers to such things as experiences, achievements, character and wisdom, and relationships. (Kamm, 1993) Death is a morally bad thing because it deprives individuals of experiential goods (deprivation), is a loss of goods for an already existing person (insult), and it forecloses any further possibilities for the person (extinction). (Kamm, 1993) She writes that if these kinds of losses happen from death after a normal lifespan, then a premature death

must be an even more troublesome thing because it would be the loss of even more experiential goods than would have been lost after a normal life span. Indeed, aside from dying with less experiential goods in absolute terms, the good of having the opportunity to choose among experiences is also lost. Kamm overlooks that good of life.

265. Interestingly, Kamm's experiential goods can also be understood in terms of capabilities as they both refer to beings and doings that human beings have reason to value. Death can be seen as a bad thing because it deprives people of experiencing various capabilities and functionings; it is a loss of previously held capabilities; and it forecloses acquiring any further capabilities. There is again, value in being able to choose which capabilities to pursue and therefore, death would also be the loss of the good of being able to choose among capabilities.

266. Pursuing this line of thought, a set of basic capabilities and functionings could be identified that allow a person to pursue the beings and doings one has reason to value, or in Kamm's terms, the goods of life. Seen as the essential or basic capabilities and functioning that make all other possible, the CH is valuable because it determines the real 'worth' of all other capabilities to pursue one's life plans. At the same time, physical and mental impairments can significantly constrain the effective opportunities to pursue the goods of life. Paralleling the effects of death on the goods of life and capabilities, so too can impairments deprive individuals of experiencing capabilities, lead to the loss of existing capabilities, and foreclose certain other capabilities. Death and impairments simply belong to a spectrum of constraints that restrict the goods of life.

267. While Kamm's analysis can give structure and coherence to some of our moral intuitions regarding death and impairments she does not seem to identify what claims exist to such experiential goods, or what the social response should be to losses of such goods. At the same time, death and impairments can indeed lead to various kinds of losses of capabilities. But why capabilities are morally important, and what claims human beings have to their capabilities must also be identified and justified. Such questions regarding claims and justification may be more productively answered

against the frameworks of theories of social justice. Thus, it is a significant achievement that Nussbaum presents an accessible, freestanding theory of the good. Nussbaum identifies claims to some central capabilities that are grounded in the respect for the equal dignity and worth of human being.

268. **Section V: Summary**

269. On the one hand, the present argument for the CH provides a coherent conceptual vehicle for evaluating the descriptive aspects of the determinants, consequences, and distribution of human impairments and mortality. On the other hand, the moral, pre-political entitlement to the social basis of a CH is also more coherent and justifiable than the hitherto received view of health claims as either claims to healthcare resources or health welfare (subjective and objective) achievements. Part of the weakness of both resource and welfare health entitlements are that they are significantly qualified by a range of limitations including the emphasis on individual volitional choices and behaviour, social borders and the amount of local resources, current limits on scientific knowledge and technology, the requirements of other social goals, and luck. As such, the weaknesses of the arguments for entitlements to healthcare or health achievements closely parallel the weaknesses of the more general arguments for distributing resources or welfare in pursuing social justice. The next chapter reviews how resource and welfare theories handle health claims, reviews their weaknesses, and argues that the CH can do better than them in many respects.

Part Three

Chapter 5: Welfare or Resource Health Claims

270. The preceding two chapters have presented the background of the CA, and argued for the coherence of the moral entitlement to the CH understood as a cluster of capabilities and functionings grounded in human dignity. The purpose of this chapter is to argue that such a perspective provides a superior conception of health claims to those derived from competing liberal approaches which focus just on the distribution of resources or welfare.¹ Furthermore, it will be argued that the shift of focus neither to antecedent opportunities for welfare nor to access to advantage overcome all the shortcomings or accomplish as much as the focus on capabilities, and in the present case, the CH. The summary review presented in Chapter 3 briefly contrasted the CA with resourcist and welfarist/utilitarian approaches. The differences are brought into greater relief here, in particular as to how they handle health related claims. As with Chapter 3, the discussion here is not meant to be original or comprehensive, but aims to highlight the salient differences and how the CH argument does better in some ways than the competing ethical approaches in evaluating and responding to human health concerns.

271. A brief review: the central argument of the CA is that the right focus of social justice should be on the fair distribution of capabilities to achieve functionings—the beings and doings that constitute planning, pursuing and revising one’s own ends. According to the Senian version of the CA, in so far as a liberal society is committed to treating every member/citizen of society equally in some respect, it should be through ensuring the equitable capabilities to function. Alternatively, according to Nussbaum, the respect for the equal dignity and moral worth of every human being requires ensuring

¹ Liberal theories distribute a range of ‘value objects’ such as Rawls’s primary goods, Dworkin’s personal and impersonal resources, Singer’s utility, Nozick’s liberties, Sen’s capabilities, Van Parijs’ income, and so forth. See (Daniels, 1996a; Clayton *et al.*, 2002)

that every person has entitlements to the social basis of ten central capabilities; some of these capabilities have to be equal among all persons, while others should reach a threshold level of adequacy. For example, political liberties should be equal while some material goods such as shelter may only need to be sufficient. The varying thresholds are linked to the intuitive notion of dignity, and public reasoning in different societies will partially define the levels and locally appropriate content. Among these ten CHCs there will be capabilities where the social goal will be to induce functionings in some persons rather than just ensuring the capabilities. Such inducements may be required in light of such factors as the person's age, limited capacity for reasoning and agency, when the social basis of the functioning is a public good, and when there is interdependence of capabilities within and across human beings.²

272. Though a capability to achieve or exercise a functioning can be simplistically presented as a single uni-directional action moving from potential to actual achievement, a capability is more accurately described as an iterative conglomeration of capabilities and functionings. In order for a person to have a capability, or effective freedom to achieve a functioning, the person's unique needs for material goods and social conditions and their conversion abilities must sufficiently match with available external material and social conditions. The focus is neither exclusively on the person's physical and mental achievements, nor exclusively on the external material goods and conditions independent. The 'capability space' is the space of opportunity and activity made up for all four causal components. Moreover, with some justifiable exceptions, the moral entitlement is not to the actual achievement of the functioning but to the capability to achieve that functioning. The main point of the CA is to create meaningful and sufficient opportunity for the individual to choose how to pursue their life plans.

273. There is clear instrumental value in capabilities as being a means to pursue one's ends. There is also intrinsic value in both possessing

² For Sen, the inducement of functioning is justified not from a conception of human flourishing or dignity as in Nussbaum's arguments, but possibly from counterfactual choice. The person would have chosen it had they been able to have choice and control over the process to achieve the functioning. See (Sen, 2001c)

opportunities to achieve a functioning as well as in having meaningful choice among capabilities. 'Meaningful' is meant to indicate that it is not any choice—having a choice of dying by hanging or by guillotine is not the kind of choice we want—but choices among of valuable and valued beings and doings. Such multiple dimensions of intrinsic value arise from a notion of human dignity as constituted by a life of certain breadth of opportunity and activity as well as from a narrower notion of a life having value because a person chooses to make their own life in their own way. Both dimensions of opportunity can have independent value.

274. While a person's overall or complete set of capabilities at any given time can reveal how well the person's life is going, justice claims for social support apply only to certain kinds of capabilities and even then, only to the social basis of those capabilities. There are 'good' and 'bad' capabilities; the CA advocates only for entitlements to a set of central capabilities that are grounded in equal human dignity. And the social basis of a 'good' capability refers to aspects of the causal components or pathway to achieving a functioning that can be justifiably influenced by social structures or agents external to the individuals. The social basis does not mean just social provision of external material goods or social conditions, but also aspects of personal features and conversion skills that can justifiably be affected. For example, compulsory basic education is intended to induce internal intellectual functionings and is generally thought to be acceptable. By contrast, compulsory surgery to ameliorate deafness or indeed, any kind of non-emergency surgery without consent is not thought to be acceptable.

275. And though it may be easy to conceive of claims to the social basis of capabilities as positive claims to things, a capability contains a variety of different kinds of claims, liberties, powers, privileges, and immunities. Because of the diverse cluster of entitlements within the CH, it cannot be understood as being an entitlement that is a 'perfect obligation' with a single corresponding duty holder. Nevertheless, where obligations map on to identifiable agents, their varied obligations aimed to protect, promote or restore the CH of individuals will the agent's relative position to the causes, consequences, and distribution patterns of CH achievements and failures.

276. **Section I: Welfare theories and CA.**

277. In contrast to the diversity of entitlements encompassed by a cluster-right, the multiple dimensions of causes, consequences, and distribution, and the varied duties to protect, promote, and restore the CH, a welfarist perspective would likely focus just on maximizing a single metric of health across individuals. Such a metric could be as basic as ‘mortality cases averted’ or be more complex such as life years spent without impairments. Welfarist or utilitarian reasoning is pervasive in health policies and programs worldwide. Such policies seek to maximize certain physical and mental states in the majority of the population while tolerating the impairments and preventable deaths of individuals whose resources needs are thought of as being cost-inefficient.³ Similar to its hold on economics, utilitarian reasoning in health policy making exhibits a number of defects and should be rejected for being morally inadequate. A purely welfarist view is inadequate for both its myopic focus only on ‘health outcomes’ and healthcare, while ignoring the moral relevance of the breadth of causes, full breadth of consequences, and distribution patterns as well as for disregarding the separateness of persons. As Nussbaum states with uncompromising clarity, aggregating across individuals, such as singularly aiming to maximize health achievements while sidelining the needs of the few must be rejected because it is of supreme importance that we recognize ‘a moral fact of paramount importance—that each person has only one life to live...’ (Nussbaum, 2006: p 237)

278. Indeed, it is in the area of health that some of the most convincing examples are found for why welfare and preferences are not justifiable as the focal points of social justice. Pain and suffering from impairments are often the first and most compelling aspects of a person that come to mind in reasoning about the moral relevance of health. Yet, despite the external visibility of pain and suffering, people’s valuation of their own physiological functioning is not a good indicator of their claims for social support. On the one hand, individuals suffering severe deprivation may consider it to be the

³ See the World Bank’s initial public policy recommendations for responding to the spread of HIV/AIDS in developing countries. (World Bank, 1997) And for an excellent critical review of the utilitarian health metric, Disability Adjusted Life Years or DALYs see (Anand *et al.*, 1997)

normal way of living and thereby, not express any dissatisfaction. On the other hand, individuals who are sufficiently functioning may express intense dissatisfaction over minor impairments, be unduly worried about non-visible impairments, or express frustration for not possessing superior functionings. While visible indications of pain and suffering, or physical trauma may evidence impairments, the intensity of the pain and suffering a person exhibits is not a reliable indicator for the strength of claims for social assistance. The 'happy-sick' or 'worried-well' both point to the possible perverse results of relying wholly on subjective desires or preferences. There needs to be an alternative or supplemental source of information in determining the scope of social response to health concerns.

279. On the other hand, assessing a person's health against a standard of physical and mental states irrespective of a person's self-valuation also has problems of its own. The problem of adaptive preferences aside, there is also the problem that even when the pain and suffering is real, there needs to be some method to determine the priority for action. Thus, there is a compelling motivation to pursue an objective metric for addressing health concerns even when the pain and suffering of individuals is unassailable. However, as discussed in Chapter 1, developing such a list without any values is implausible. A purely biological account of what a 'normal' human being is like is impossible to give without any evaluative judgements. Alternatively, a value infused list of health functionings must be justified for advancing a specific conception of the good and the right.⁴ Furthermore, the method of aggregating health functionings within and across individuals presents further ethical challenges for those advancing an 'objective' list of physical and mental states. What value do these objective functionings have that compels social action? And, why is the separateness of persons not relevant if such individual health functionings have value?

280. The persistence of welfarist thinking in health policy making is driven largely by the pursuit of epidemiological and fiscal efficiency. For example, it is illuminating to see even the strongest advocates of the priority of liberty in social arrangements defer to the use of coercive measures during an

⁴ See (Daniels, 1985; Dworkin, 1993)

epidemiological crisis. The threat of impairments or death from the transmission of pathogenic organisms is thought to be sufficient grounds to restrict fundamental liberties.⁵ Such deference shows the extraordinary authoritative power of epidemiological science has to affect social arrangements. The goals of epidemiological efficiency suggests that the chosen course of action should be the one which will maximize the most number disease cases averted, or the number of persons treated. During an infectious disease epidemic, pursuing epidemiological efficiency is often the motivation behind implementing coercive measures of social control on individuals who carry an infection or who are most likely to be come infected, against a background of coercive measures applied widely across society.

281. But from the perspective of capabilities, it is possible to argue that individuals who are carriers of a harmful infectious disease, or most vulnerable to it, exhibit acute failures of capabilities. These failures are in turn likely to have been preceded by endemic 'low intensity' capability failures. The analysis of Drèze and Sen on endemic and acute malnutrition can be easily transposed onto the spread of infectious disease epidemics. An acute health crisis evidences the failure of social structures to ensure at least sufficient capabilities, particularly those relevant to biological functionings. For example, the acute failures in the capabilities of poor girls and women to protect themselves form HIV is often linked is often just the intensification of long-term endemic capability failures to achieving good reproductive and sexual health functionings. The spread of HIV/AIDS or other preventable infectious epidemics reflect the extent of unjustness of societies because they explicitly evidence capability failures. Indeed, the consistent neglect or sacrifice of the capabilities of those who are peripheral to the goal of maximizing total health of the population is often at the root of epidemiological crisis. As Jonathan Mann pointed out, epidemiological efficiency may be more achievable when societies ensure basic freedoms for all citizens than in following a course that restricts the liberties of those most vulnerable in the face of an epidemic. (Mann *et al.*, 1994; Mann, 1996; Mann, 1997) The deference to coercive authority to achieve epidemiological

⁵ The criteria for such abrogation of liberties are often that they are constrained by legal means, the least intrusive, and time-bound.

efficiency is an embarrassing capitulation for both welfarists and libertarians which could be avoided by alleviating the endemic and acute inequalities in capabilities.

282. The pervasiveness of utilitarian and welfarist underpinnings of health programs is not limited to infectious diseases. In addressing chronic impairments, achieving epidemiological efficiency suggests that lowering the risk of the majority of individuals in the population slightly will prevent more cases of disease, and for the longer term, than by focusing on the individuals who are most at risk. In statistical terms, lowering the mean-level exposure of the population will avert more disease cases and be more efficient expenditure of resources than trying to prevent disease in those with the highest exposure in the tails of the population. (Rose, 1985) Such an analysis that pits the interests of the few against that of the many is familiar to philosophers as containing various defects, but in epidemiology and health policy, it is seen as offering clear guidance on the right course of social action.

283. Fiscal efficiency in addressing health concerns entails achieving the maximum benefits from the available resources. An initial crude method would be to assess the leading causes of preventable mortality and allocate resources to mitigating those causes which will avert the most number of preventable deaths. More sophisticated approaches incorporate diverse subjective and objective measurements of the quality of life of individuals affected by different causes of morbidity and preventable mortality. Fiscal efficiency also entails allocating resources to causes which will maximize the chosen measurement variable(s). This drive for fiscal efficiency does not take into account that health outcomes, or achievements of physical and mental states, are not the only morally relevant feature of evaluating and addressing health concerns. The determinants, distribution patterns, and full breadth of consequences of impairments are also relevant in determining the social response.

284. In response to the shortcomings of equality of resources and the equal opportunity for resources Richard Arneson proposes equality of opportunity for welfare. He suggests that equality of opportunities for welfare

and the CA are largely similar. Indeed, the CA advocates the opportunities for individuals to achieve 'beings' which can be mental states. But Arneson stops short of fully endorsing the CA because he believes that it is necessary to have a complete index of capabilities in order for it to be a candidate conception for distributive equality. (Arneson, 1990: p 193) However, Sen has defended the plausibility of a conception of distributive justice which achieves only partial ordering of capabilities. On the other hand, Nussbaum's non-perfectionist account of ten CHCs as a social minimum would undercut Arneson's critique that CA has no indexed content. Despite its aims, Arneson's move to equal distribution of opportunities for welfare does not overcome the shortcomings of pure welfare theories.

285. The focus on the CH goes much farther than welfarism in fully evaluating the moral relevance of the determinants, distribution, and consequences of constraints on health functionings. The CH argument presented here also clearly articulates the various causal components of health functionings as including personal features/needs, conversion skills, exposures to material goods and social conditions. Whether in pursuit of an 'objective' list of healthy physical and mental states, or satisfaction of a person's own preferences regarding health functionings, welfare theories exhibit a broad range of shortcomings in responding to health concerns. The foundational and Kantian liberal principle of 'each person as end' interpreted by Nussbaum as 'each person's capability' provides a strong basis to reject the singular focus on an individual's welfare in addressing health concerns. (Nussbaum, 2006: p 216) Purely welfarist approaches to health concerns must justify the (1) capability constraints incurred by some for the sake of increasing the health benefits of the greater population; and (2) the singular focus on biological outcomes while ignoring the moral relevance of the causes, distribution patterns, and non-biological consequences of health constraints.

286. **Section II: Resource theories vs. CH.**

287. Reasoning that the moral concern for the health functionings of persons gives rise only to claims to healthcare resources, whether an 'essential' package, or even more broadly defined healthcare goods and

services, fails to take into account the extra needs and varying conversion abilities of individuals in achieving any and all valuable health functioning. Claims only to a standard set of healthcare resources also excludes considering the possible non-healthcare material goods and social conditions necessary to maintaining physiological and agency functionings. Aside from the diverse requirements just for the maintenance of functionings, the capabilities to avoid threats of impairments and premature mortality over a normal lifespan certainly requires much more than clinical medical care and public health services. Healthcare is often valued for its restorative or ameliorative function, but for prevention, the 'upstream' requirements become much broader than even public health goods and services broadly defined. Goods and social conditions such as physical safety, access to income, and freedom to access and share information are all crucial factors in determining the extent of vulnerability or risk to impairments and premature mortality. The focus on healthcare alone does not fully appreciate the interaction of personal features, conversion skills, material goods and social conditions in the production of somatic and psychological functionings.

288. One type of resourcist theories that tries to distribute healthcare starts with the notion of basic entitlements or human rights. These basic entitlements are said to be foundational or basis for all further human activities. There are two ways these theories justify the 'basic rights' thesis. The first approach is to argue that 'if there are any rights, then there have to be these rights first'. That is, these theorists do not directly justify the basic entitlements, but argue that if there is any justification found for any other rights then the basic rights being advocated must be recognized first as they are logical pre-requisites for those rights. (Shue, 1996; Jones, 1999) For example, right to political participation is predicated on individuals being alive and able to participate. (Pogge, 2001) Such basic rights include entitlements to such things as food, shelter, and healthcare. A second approach to justification for the 'basic rights' thesis is by way of rule utilitarianism. Though rights and utilitarian analysis are often pitted against each other, in this instance, it is argued that if these basic rights were consistently recognized

then, human welfare or utility would be better overall, or there would simply be more of it. (Jones, 1999)

289. Both types of justifications of the basic rights or needs approach fail in various ways. In terms of justification, the latter attempt at asserting the greater social welfare from realizing everyone's basic entitlements hinges on empirical analysis. If in fact, it were not the case that overall utility is higher from fulfilling these basic rights, then the argument would fail. And it is possible to show how rule-utilitarianism, even with a guarantee to a social minimum for each individual, could still not be acceptable on other grounds. (Kymlicka, 2002) But most importantly, the basic rights/needs resources approach fails because by asserting a standard package of resources for every human being, it fails to recognize the different needs and conversion abilities of individuals. The focus on commodities such as food, shelter, and healthcare, also fails to give sufficient attention to the necessary supportive external social conditions aside from the provision of commodities. Minimal resources or basic needs approaches, though they are grounded in the material reality of the lives of people, focus on the goods independent of the personal features of the individuals. Such approaches envision a minimal conception of human life, and then assert entitlements to intermediate means to such a conception.

290. Resource theories which do not even distribute healthcare specifically but expect income and wealth to satisfy the health needs of individuals over the life course especially evidence the inadequate ethical consideration of the determinants, consequences, and distribution of human health functionings. For example, Rawls excludes health issues in identifying and distributing 'primary goods'. Any additional material needs or difficulties in dealing with the social conditions in order to achieve, maintain, protect or restore health functionings are relegated to the personal sphere, or considered to be outside the scope of justice. Most importantly, individuals with severe and long-term impairments become second class citizens as their 'extra-ordinary' needs are outside the scope of justice. Their interests are to be taken care of by guardians. The financial costs and non-financial resources such as time and energy of others needed to provide care are

invisible from the calculation of primary goods. In the extreme, when personal resources and/or public beneficence are not enough to achieve sufficient health functionings, the constraints consequently restrict, if not fully extinguish, the practical possibility of an individual to pursue their own ends.⁶

291. Resource theory advocates either have a blind spot to this significant consequence or are willing to accept this sort of inequality in substantive freedom caused by health constraints. They highlight the possible role of individual volitional choices and preferences in creating extra health needs and therefore, their justifiable exclusion from legitimate claims for social support. For example, health needs that are caused directly from participating in dangerous sports or smoking would not have to be met as a matter of justice because the individuals knowingly chose to place themselves in that position of risk. Such a focus on personal accountability may alleviate some guilt for resourcists, but it does not fully manage to offset disregarding the price paid by the remaining individuals who may be the most vulnerable of all members of society; individuals who did nothing to expose themselves to harm but whose health related costs exceed the standard set of entitlements.

292. This disregard or inadequate consideration of the needs of individuals outside of the 'standard set' violates the fundamental principle of showing equal concern to all members of society. Moreover, the emphasis on choice versus luck places resourcists in the position of having to assume the causation of the health impairment is clear and established; it either has to be a result of choice or brute luck. Otherwise, how would one determine whether the person is responsible for their own extra health needs?⁷ What

⁶ One of the major drawbacks of Rawls's theory is that when a person's financial needs become very expensive, the theory tries to transform the needs into preferences and thereby absolve any requirements for social provision. And even if there is agreement that there are legitimate, very expensive needs, the theory allows for caps on such expenses because of the prudential reasoning of contractors. Contractors would have an interest in restricting one person from being a large drain on social resources. (Pogge, 1989; Pogge, 1995; Pogge, 2004)

⁷ This parallels Cohen's critique of Rawls that though he recognizes that talents are a mix of inheritance and effort, individuals cannot claim their full benefits, but when preferences are also a mix of inheritance and choice, Rawls holds them fully responsible for their tastes. Where there is a mix of individual volition and genetics/unknown reason, how does one identify whether that should fall under choice or brute luck? (Cohen, 1989; Cohen, 1997)

these resourcists also miss is that every human being at one time or another over the life course will experience severe impairments that will make them dependent on others. And it is quite certain that human societies will continue to experience major health crises in the immediate future. Human beings are and will continue to be vulnerable and interdependent human beings. A standard set of 'primary goods' or healthcare resources does not adequately account for the different needs and vulnerabilities of human beings over the life course or provide security against changing threats to the embodied functionings of the human species.

293. In that process of abstracting away from the personal features, choices or preferences that individuals may make or have in order to reflect on the just distribution of resources, resourcists do not seem to exhibit a thorough enough understanding of the causes, consequences, and distribution of mortality and impairments among human beings. For example, in responding to Rawls who excludes all health issues in *A Theory of Justice*, Dworkin specifically identifies differences in physical and mental abilities as constituting morally relevant inequalities in personal resources under one's command. Dworkin then goes on to argue that the sufficient social response to addressing physical and mental impairments should take the form of providing additional compensation to those who had no control over the cause of those impairments. (Dworkin, 1993; Dworkin, 2000) Dworkin may be commended for pointing to the moral relevance of health impairments. Yet, Dworkin's analysis is too simplistic for idealizing health functionings as being caused either by innate features or volitional choices. And he seems to see no problem with reasoning that the effects of either a temporary or permanent impairment on a person's life can be justly addressed through individual, monetary compensation. One criticism is that impairments can impinge on equal dignity, and may not be just about monetary compensation for loss of social advantage. It may be that social conditions need to change. A second critique is that disability results in both earnings handicap (inadequate or low income) and conversion handicap (disadvantage converting earnings into good living). (Sen, 2004b) Disabled individuals may

require both additional income as well as assistance with converting resources into pursuing their plans of life.

294. Viewed from the perspective of capabilities, resource theories are inadequate with respect to what they include and exclude in their standard conception of persons—as indicators of what they consider morally relevant features of persons. They are also inadequate in looking at intermediary resource holdings to assess how well the lives of people are going. Indeed, Rawls and resourcists after him do recognize human diversity. But such diversity is seen in the varying conceptions of the good, and the differing effects on a person's life course by the (supposedly) random and unequal distribution of natural goods (talents, skills, intelligence, health), volitional choices, and random events of bad luck. The CA does not deny the moral significance of the human capacity for moral reasoning in conceiving the good, the differences in innate qualities, the role of volitional choices, or even bad luck. However, the CA recognizes more fully the moral relevance of how every human being is as G.A. Cohen states, differently 'constructed and situated'. (Cohen, 1989)

295. Sen makes a compelling point that the assertion of equality of one 'value-object' or resource in social justice theories will surely result in inequalities elsewhere precisely because of the diversity among human beings. If human beings were uniform, creating equality in one space would produce equality in the effects in other spaces. Because of the diversity of human beings, forcing the equality of persons in one aspect also requires justifying the consequent inequalities in another aspect. (Sen, 1992: p 21) The price paid for conceiving social justice as the equality of resources is the resulting unequal capabilities of individuals to pursue their own conception of the right and good; inequalities in freedom. This is quite opposite to what theorists intend when they argue for the equality of the means to pursue one's ends. The response to consequent or persistent inequalities in freedoms is often ad hoc attempts to provide additional compensation for various types claims. For example, additional resources are provided to satisfy expensive tastes one has been raised with rather than those that are chosen; handicaps one is born with; or the additional needs of pregnancy. However, resourcists

cannot adequately justify such pervasive inequalities in basic freedom as they are avoidable.

296. The lack of sufficient recognition and consideration of the diversity across human beings in the needs for material goods and in abilities to convert these goods and social conditions into life's beings and doings results in two significant challenges for resourcists. They have to justify the inequalities consequent to pressing for equality of resources. And they have to argue that knowledge of the determinants, consequences, and distribution of health constraints has no effect on the basic epistemology of their theories and resulting basic principles. That is, once resource theorists do become aware of these aspects they must be able to show that their reasoning does not need to change. In specific, a pure equality of resources approach to health concerns must justify at least the following sources of inequalities.

- (1) Inequalities in health functionings can remain with the equal distribution of resources and/or
- (2) equal distribution of healthcare resources;
- (3) inequalities in non-health related capabilities can result from providing equal healthcare resources; (e.g. rich get richer from subsidized healthcare costs)
- (4) equal distribution of healthcare and/or other material goods does not affect psycho-social determinants of impairments.

297. **Section III: Why the CH**

298. In order to make up for shortcomings of prevalent resource theories, a 'sophisticated resourcist' could argue that the concern for the health needs of individuals requires the provision of healthcare commodities as well as all purpose means such as liberties and equality of opportunities.⁸ Such a theorist would recognize the necessity for both internal capacities, and external commodities and social conditions for individuals to be healthy. They differ on how much individual health in terms of physiological functionings is thought to be determined by internal capacities and how much by external social factors. The most limited understanding of health in this type of sophisticated resourcism sees health as largely a 'natural good' which

⁸ The idea of a sophisticated resourcist is based the approach of Thomas Pogge who criticises Rawls's theory, the pre-eminent resourcist approach, but nevertheless, contends that resources are still the right focus. See (Pogge, 1989; Pogge, 2001; Pogge, 2002a; Pogge, 2005)

is affected by luck and choice. The only thing that can be the social basis of health is access to healthcare, encompassing individual clinical care and public health services. The difference between these resourcists and capabilities advocates is over whether the resourcists can accommodate the diversity of needs and conversion capacities of individuals. On one level, it can be seen as a difference between the breadth of the resources available to cover the diversity of individuals. Can the concept of healthcare be adjusted to sufficiently cover all the needs and conversion abilities that capabilities theorists keep pointing out? On another level, it is a profound disagreement about the conception of the person and its consequent assumptions for 'ideal theory'. Why should needs and conversion abilities be an after thought for compensation rather than central to ethical reasoning on basic principles?

299. A CA advocate would argue that even if sophisticated resourcists were able to keep extending resources to cover needs and conversion abilities, they simply do not appreciate the full extent of the social basis of the CH. Moreover, sooner or later, even sophisticated resourcists will place limits on resource claims because they take away from the claims of others. And they will call such caps on resource claims just. The focus on capabilities would be more on-target, and when social structures cannot provide resources to one individual because it will undermine the minimal dignity of others, it will clearly be recognized as justice not being done to that individual.

300. One important thing that resourcists and capabilities theorists alike must recognize is that experiences of social inequality such as from income differences or through discrimination based on race, gender or sexuality cannot be understood as simply an absence of a resource or primary good. When conceiving of individuals as pursuing mutual advantage, discrimination looks like the denial of equal access or opportunity to the pursuit of life plans. Yet, in the context of health functionings, discrimination is not just the absence of primary goods such as social basis of self-respect, or lack of equality of opportunity. Perennial stress and anxiety from discrimination gets converted through psycho-biological pathways into impairments and early

death. The lack of primary goods does not mean just the lack of instrumental means but also that it is a source of harm. The capability space, by being grounded in dignity, and focused on ensuring a sufficient level of opportunity and activity is not only instrumentally and intrinsically valuable, it can also be protective. Ensuring a sufficient level of capabilities means that the human animal's neediness, sociability and ability to reason are not allowed to function but that such functioning is protected because it is necessary for its survival.

301. Aside from avoiding the shortcomings of resourcist or welfarist approaches, the entitlement to the CH also expands the traditional scope of health claims. The scope of the entitlement to the CH includes all social bases of impairments and mortality. In contrast, even the most committed advocate of the CA currently takes as given existing disease categories and evidentiary power of available statistics on the prevalence of morbidity and mortality. Theorists who understand health claims as being only those arising in the clinical setting, or having to do just with disease, are blind to other sources of health claims. Such an understanding comes from the pervasive and incoherent notion of disease in the medical sciences. The concepts of disease, and health as the absence of disease, must be jettisoned as our knowledge of the causes of impairments and mortality has outstripped their value. As the causal model of the CH argues, the breadth of components including personal features/needs, conversion skills, exposures to material goods, and social conditions produce health capability and have moral relevance.

302. A sufficient social response to health capability constraints must evaluate the social basis of all the causal components. For example, poor nutrition of girls and women in developing countries is hardly ever considered within a medical setting, and even less likely a topic for health policy or bioethics. The distribution of food within the household in resource poor settings has been shown to be a function of the gender of individuals. Yet, the consideration of the social conditions within and outside the household affecting gender and consequent access to nutrition is rarely, if ever, part of health policy. As malnutrition is not due to disease, or even when it does

lead to disease, the social determinants are still left unaddressed. There needs to be a reorientation of health concerns away from the narrow focus on disease to the CH. An entitlement to the CH would be able to recognize the nutritional deprivation of females as a health issue, and provide the moral force to address the social basis.

303. The next chapter reviews what may be called a 'sophisticated' resource theory to address health concerns. Norman Daniels's has extended Rawls's theory twice now to address health issues which Rawls initially left out. The first time, Daniels extended the theory in way he thought was defensible in order to address the fact that individuals experience impairments over the life course. This second time, Daniels has revised his earlier extension in order to address difficulties he faced with distribution resources based on his original principles as well as to incorporate a whole body of research he had missed earlier on the social determinants of health. The revision also allows him to incorporate the various critiques offered by the CA as well as try to address the issue of global health inequalities. The next chapter will evaluate the success of his latest revisions in comparison with the arguments for the CA and CH. The evaluation continues in Chapter 8 where the international dimensions of his theory are considered.

Chapter 6: Thomas Pogge and Norman Daniels

304. The present chapter reviews Norman Daniels's recently revised theory of health justice, and contrasts it with the argument for an entitlement to the CH. Daniels's theory is worth examining in detail because it is a rare example of ethical reasoning that aims to put forward a full theory of health justice. Furthermore, his argument is also unique as it extends Rawls's theory to address health issues. Both these aspects make Daniels's theory worth examining more closely if the CH is to be adequately defended. Before pursuing Daniels's argument, a slight detour is taken to consider Thomas Pogge's comments on the contrast between resource theories and the CA. Such a detour is needed because his view on the contrast relates specifically to health functionings and thus, could have some bearing on evaluating Daniels's argument.

305. Pogge is one of the best defenders of the Rawlsian and other resourcist approaches to justice as well as one of their best critics. He argues that the only real contrast between a 'sophisticated resourcist' (SR) approach and the CA is the way each would address significant differences in the 'natural features' of persons. (Pogge, 2002a) An SR approach is said to be a resourcist approach such as Rawls's theory which is adjusted for its shortcomings in relation to personal diversity in needs and conversion skills but still keeps the focus on distributing resources. If we accept Pogge's remarks at face value, then there are likely to be starting off with substantial similarities between Daniels's argument, which is an example of a Rawlsian argument, and a capabilities argument like the CH. Furthermore, Daniels aims to address health issues which Rawls is widely recognized as ignoring or simplifying too much. Thus, trying to highlight the differences between Daniels's argument and a CH argument may seem futile if Daniels is erasing their only point of difference or disagreement. It may seem as though small differences are being exaggerated while ignoring their larger and fundamental commonalities that exist, as Pogge seems to claim.

306. However, the following discussion aims to show that there are indeed significant differences between Daniels's extension of Rawls's theory and the argument for the CH. And Pogge's comments need to be examined more critically. Even if Pogge's assessment is appropriate, he did not have available Daniels's recently revised argument, and Pogge probably did not take into account Daniels's initial argument either. Because Daniels's initial argument for distributing healthcare according to Rawlsian principles was thought to be so particular to the situation in the United States, it is unlikely that Pogge would have had it in mind when making general comments about SR approaches and the CA. However, Daniels now explicitly advocates his theory as being a general theory of health justice as well as being applicable to different societies. Thus, his argument is the closest ethical competitor to an argument for a species-wide entitlement to CH. In order productively to compare Daniels's argument with the CH it may be helpful to see how it intersects with Pogge's analysis and conclusion the CA's commitment to meeting the resource needs resulting from biological features is the only real difference between an ideal SR theory and the CA.

307. **Section I: Pogge and 'pure' personal heterogeneity**

308. Pogge points out that CA advocates consistently argue that the scope of social justice must address the diversity in individuals' needs for types and amounts of commodities as well as in their abilities to convert commodities and social conditions to their advantage. He overlooks that CA advocates also recognize the diversity in abilities to convert one's own personal endowments into beings and doings and not just to convert things in the external environment. In any case, Pogge identifies the sources of such personal diversity in needs and conversion abilities as including age, sex, geographical location, pregnancy, family situation, community practices, and so forth. Thus, Pogge seems to correctly understand that the capabilities of a person are determined by the person's internal features and conversion skills combining with the surrounding material and social conditions.

309. Nevertheless, useful as this type of capability analysis may be, Pogge believes that most or all of the diversity and needs and conversion abilities from such sources can be addressed through a 'sophisticated' just

distribution of resources. That is, resource theories can make adjustments or reason more thoroughly than they do now to account for all these different forms of diversity. The primary goods space and distribution principles can be tweaked. A pregnant woman actually needs resources for two people; or a person may claim more resources for warmer clothing for equal opportunity to work, and so forth. What resourcists and capabilities advocates disagree on, Pogge writes, is how to handle any 'extra resource requirements' beyond this minor tweaking that particular individuals might have as a result of their own, internal 'natural features'. CA advocates and some other critics of Rawls would provide extra resources to individuals to compensate for aspects of their personal features (needs and conversion abilities) which lessen their abilities to pursue their life plans relative to the abilities of others. So a person with lesser 'natural' talents and skills should have the same capabilities as a person with the most talents and skills. A person with severe physical impairments should have capabilities equal to someone who is not impaired. For the CA, the focus is on achieving a sufficient or equal level of capabilities and does not identify any limits on the resources to expend on influencing the causal factors to create such capabilities.

310. Therefore, Pogge argues that the only meaningful differences between a SR approach and CA is how they would address the needs from 'pure' personal heterogeneity. By pure diversity, he means specifically the diversity in personal features that arise from ordinary genetic variation, self-caused factors, and differential luck. These are causes of diversity in needs which he sees as having no social basis. If they did have social basis, they would have already been tweaked as part of an SR theory. According to Pogge, advocates of a SR theory and the CA would disagree on satisfying claims for extra resources needed as a result of non-socially determined heterogeneity from innate biology, individual choice, and bad luck. Rawlsians, for example, say justice does not apply, or that there are no justice claims resulting from those kinds of situations. Capabilities theorists, according to Pogge, argue that justice does apply but are vague about exactly how.

311. Daniels can be seen as closing the gap between the SR and CA theorists by expanding the scope of social support within a resource theory to

cover many aspects of these three sources of personal heterogeneity over the life course. Individuals are given claims to a range of 'species-typical' functioning over the life course irrespective of whether the constraints are caused by genetic endowment, choice, bad luck, or indeed, any other cause. As a result, Daniels may be able to assert that the only remaining difference is how the two approaches deal with people who never had species-typical functioning or those who cannot be restored to the species-typical range during the life course. Daniels, like Rawls, is neutral about the natural baseline, or what individuals are born with.

312. It is important to note at this point that Nussbaum rejects a purely resourcist approach to justice, especially one based on a social contract, partly because she sees it as denying the equal dignity and moral worth of every human being. (Nussbaum, 2006) The resourcist's primary focus on the strategic or 'prudential' value of resources in achieving life plans results in treating individuals who cannot 'rationally and independently' pursue the good life with lesser dignity by excluding them and their interests from the scope of justice. Resource theorists treat such individuals as second-class citizens in two ways. They are excluded from being primary agents of justice because they lack certain prerequisite traits. And, the consideration of their needs is deferred to a secondary stage after the basic social institutions and needs of the 'normals' have already been laid down. Resourcists assume that the concerns—the needs, conversion skills, the dignity—of the severely impaired individuals, whether those who are born impaired or become impaired over the life course, will not require changing the form or scope of basic social institutions.

313. Pogge has a somewhat related critique of Rawlsian justice. (Pogge, 1989: pp 161-207) He initially concurs with Rawls that an individual's ability to pursue a conception of the good is not only determined by social resources but also by natural endowments. But Pogge wonders why the social contractors should be neutral with regard to the random or 'natural' distribution of physical and mental endowments. Because random natural endowments significantly affect the access to social resources and success of pursuing the good life, that is precisely why the contractors would likely

want to ensure that there is no correlation between being lucky with better natural endowments and possessing more social resources. Pogge is not convinced that the contractors behind the veil of ignorance would be so willing to accept the relative inequality produced by the Difference Principle—that individuals with lesser innate talents and skills end up on the lesser end of resource distribution curve in contrast to an equal distribution of resources. (Rawls, 1971: p 151) Pogge thinks that it is plausible that contractors would prefer lesser but equal shares of resources over the option of receiving relatively less than others but more than equal shares. Such scepticism seems to be related to the self-esteem or social bases of self-respect that is affected by the knowledge that one has lesser social resources than the 'naturally lucky' who get more social resources.¹

314. While Nussbaum focuses on ensuring the equal dignity of human beings who have limited interest in or capacities to pursuing the good, Pogge is concerned that individuals with lesser natural endowments will have relatively less share of social resources. Despite Nussbaum and Pogge sharing this common concern over how the Rawlsian system of justice treats individuals with lesser natural endowments, Pogge nevertheless dismisses the CA for very particular and peculiar reasons. He argues that the CA does not articulate how diversity in work-related natural features will affect the benefits and burdens of economic cooperation. Expressing a concern which evinces his resourcist roots, Pogge focuses on how the CA deals with a non-productive or non-cooperative member of society as the basis of his rejecting the CA. For Pogge, even his naturally lesser endowed individuals are economically productive agents pursuing their life plans.

315. Pogge contends that the CA does not offer any specific answer to the question of how an economy made up individuals with sufficient or equal capabilities would function. In contrast, a Rawlsian system does consider how an economic system can function which is made up of individuals with great personal heterogeneity. Rawls allows socio-economic inequalities in

¹ The answer for Rawls is that his social contractors do not envy, and that because each is self-interested they would accept the Difference Principle as it would ensure that every share is better than if there were equal resources. (Rawls, 1971: pp 150-161)

order that economic incentives motivate individuals to create more wealth in a society, which is then distributed in a way that is said to benefit all. The trade-off for allowing inequalities is that those endowed with lesser talents and skills will be better off—have a bigger economic share—than if all socio-economic goods were divided equally. Rawls does not directly compensate for lesser natural talents like the CA, but indirectly through the Difference Principle. Partly because of this concern for the efficient functioning and growth of the economy, Pogge defends the Rawlsian resourcist approach over the CA.

316. Even more surprisingly, Pogge contends that CA advocates stigmatize individuals, and destroy the social conception of human diversity as being ‘horizontal’. That is, the CA is said to do harm by seeking to directly compensate for personal features that are publicly identified as being deficient. Pogge appears to be arguing that explicitly identifying the needs of individuals for them to achieve sufficient and equitable capabilities and functionings is an affront to their dignity, and supposedly destroys the notion that personal diversity is horizontal and not hierarchical. It is unclear whether he thinks that the indirect method of compensation under the Rawlsian system, through the Difference Principle preserves dignity. But why would a person under a Rawlsian system who recognizes themselves as having a lower share largely because of their lesser natural talents not suffer any insult? Or why would diversity be thought of as horizontal even though the gradient in valued social resource holdings parallel such natural diversity?

317. Pogge’s trenchant analysis is valuable in highlighting both similarities and differences between Rawlsian and CA. However, his criticism of the lack of analysis of human capabilities and economic cooperation is misdirected. Both in terms of theory and practical policy analysis, Sen has applied the CA to economic systems. (Sen *et al.*, 1999) It would be quite surprising if Pogge is accusing Sen, a Nobel Prize winning economist, of not fully thinking through the implications of the CA on economic systems. What Pogge is pointing to perhaps, is the problem of aggregation or making trade offs in terms of economic productivity versus capabilities. Under a Rawlsian scheme, there is a trade-off between the growth of the economy and equality

of distributive shares. Perhaps, there is a similar trade-off to be made between economic growth and equality of capabilities? Yet, Sen has demonstrated, taking India as an example, that more economic growth can happen by supporting capabilities. And, theoretically, if there was a trade-off to be made between supporting the capabilities of some versus growing the economy, it would have to be decided through a process of public reasoning. In contrast, there is no argument made that economic growth can happen or increased through supporting equal shares of primary goods.

318. Because Sen and Nussbaum envision economic growth to be more sustainable and robust through improving the capabilities of all citizens rather than increasing GDP through 'fast growth' projects. Pogge's very theoretical question as to how the CA envisions an economic system where individuals have different talents and skills related to production puts up a false trade off. The equality of economic shares versus growth of the economy in the Rawlsian system is in conflict. But the choice between improving the capabilities of individuals versus growing the economy seems to be in conflict only when the idea of economic growth is short-term or only in terms of increasing year-on-year GDP or GNP. And even if it were the case that GDP or GNP could grow by not supporting capabilities, then it could be argued that economic growth, seen as increase in opulence, has no value on its own. The purpose of opulence is to increase capabilities. Thus, the CA does not see a need to make a trade-off between opulence as a means to capabilities and capabilities.

319. Pogge's second criticism that the CA stigmatizes individuals based on their personal features is surprising. Nussbaum would argue that the CA aims to protect and respect dignity of individuals through promoting and protecting capabilities, particularly a sufficient level of ten central human capabilities. Her conception of human dignity is thoroughly intertwined with the possession of capabilities. Pogge's criticism may be more pointed about the disrespect shown in the method of assistance. By directly identifying a personal feature that makes a particular individual in need of assistance, somehow the individual is being stigmatized or embarrassed for being deficient. This notion of stigma that Pogge uses is problematic, as stigma is

actually a concept that reflects what individuals in the surrounding environment express about a person. Indeed, it is clearly possible and has sometimes been true that social institutions created to assist individuals also create stigma for the recipients in order to discourage the making of claims. But that is not what the CA advocates. And, it seems counter-intuitive that social institutions geared towards engendering capabilities of individuals through direct assistance with material goods or through transforming the social environment would at the same time allow the social environment to stigmatize individuals for the lack of capabilities or for receiving assistance.

320. Pogge may be trying to make a similar criticism to the one made by Elizabeth Anderson against liberal theories which resort to directly compensate individuals for their bad luck. (Anderson, 1999) But Anderson comes out in support of the CA. Perhaps Pogge is seeing the CA as too much of a compensation scheme rather than as one seeking to engender activity and opportunity. Protecting, promoting and restoring capabilities addressing the diverse needs and conversion skills arising from personal features would include countering the social stigma in the environment. Given that entitlements to human capabilities are grounded in equal human dignity, it would undermine the central motivation to allow or induce stigma during the process of supporting capabilities.

321. So Pogge's assessment of the differences between SR theories and CA can be useful to highlight how each would deal with natural inequalities differently. Yet, it should not be overlooked that Pogge is not offering a specific SR theory, but suggests that improvements could be made to one such as Rawls's theory in order for it to become a SR theory. (Pogge, 2002a) The differences he is pointing to are between a not yet existent ideal resource theory and the CA. Furthermore, his two criticisms of the CA do not seem to hold up under closer scrutiny. His concern for economic efficiency and growth really makes him vulnerable to the general criticism that resourcists see justice as narrowly being centrally concerned with the pursuit of mutual advantage or economic benefit. His criticism that the CA affronts dignity of individuals by making negative value judgements on personal heterogeneity can be superficially addressed by pointing to the importance of

dignity to the CA. A more thoroughgoing response really requires a fuller articulation of the role of dignity in the CA, and how the CA seeks to ensure equal human dignity. Something which Nussbaum does in defending her ten CHCs.

322. This review of Pogge's comments then leads to concluding that the supposedly minimal differences between an ideal SR theories and the CA are quite important differences, and which in fact, go to the heart of the reasons to reject resource theories. An ethical approach which denies the equal moral worth and dignity of every human being provides a strong basis to reject it as a plausible theory of social justice. Pogge's analysis does provide one benefit for CA advocates. He provides an analysis which shows that even an ideal conception of a resource theory will continue to have difficulty in dealing with differences in biological and psychological functionings that are not socially caused. It gives us good background to see how an example of a Rawlsian conception, even though Pogge does not consider it to be a SR in its present state, handles health issues. Does Daniels's bring Rawls's theory up to the level of a SR theory? Does it go beyond the limitations of the SR to handle the health claims of every human being like the CA and CH? Unsurprisingly, the answers to both questions are that he does not.

323. **Section II: Daniels's revised theory of health justice.**

324. Daniels initially extended Rawls's theory to the realm of human health in the early 1980s. (Daniels, 1985) Daniels had reasoned that because health is not something that is greatly under social control, Rawls was right in not putting it on the list of primary goods.² (Rawls, 1971: p 62) Instead, Daniels claimed, the right focus should be on healthcare, broadly conceived, as it could be socially provided. But that too could not be put on the list of primary goods as it would create the problem of having to rank it

² Both Rawls and Daniels appear to think that because health, or lack of disease, cannot be fully guaranteed by external social structures, then it cannot be put into the primary goods space. There seems to be confounding between a social guarantee of a good, and the social guarantee of the social basis of a good. They also underestimate the extent of social basis of health and other functionings. In contrast, Nussbaum identifies entitlements to the social basis of basic capabilities such as bodily functioning, emotions, and reasoning abilities.

against the other primary goods, particularly with income and wealth. That is, even though Rawls prioritized the distribution of primary goods through the Difference Principle, identifying how to make the particular tradeoffs between healthcare and other primary goods is seen as over-determining the life plans of individuals. (Arrow, 1973; Pogge, 1989)

325. Daniels focused instead on one of the existing primary goods on the list, the fair equality of opportunity. In the original argument, Daniels conflated Rawls's equality of fair opportunity with the equal opportunity to attain jobs and careers with pursuing a plan of life or conception of the good. (Rawls, 1971: pp 83-90; Daniels, 1985: p27) He argued that a person's health is an important determinant of their fair equality of opportunity to pursue public offices and careers. From this link between health as a determinant of the fair equality of opportunity, and the causal link between healthcare and health, Daniels argued that healthcare institutions should be understood as one of the basic institutions of society that functions to ensure equality of opportunity to pursue life plans. Exemplifying the analysis of the CA advocates, Daniels focused on the specific good of healthcare because of its instrumental value to what individuals can be and do. Asking whether the conception of the beings and doings is justifiable or if other factors may also causally determine such beings and doings is put aside in striving to establish entitlements to the particular good.

326. Daniels's initial argument became well known within the field of bioethics and health policy discussions in the United States. Its prominence was in large part due to the rarity of any philosophical consideration of health issues at the level of ethical theory. That is, philosophical discussions on health issues in industrialized countries had until recently mostly focused on the doctor-patient relationship and the casuistic application of the bioethics principles, 'non-maleficence, beneficence, autonomy, and justice'. (Daniels, 1996b) Philosophical reasoning about health issues in poor countries was even rarer and thought to be about fundamentally different issues—about famines, over-population, and basic needs. (Singer, 1972; O'Neill, 1975; Sen, 1985; Shue, 1996; Unger, 1996) These 'macro' types of health concerns were thought to be categorically different from the concerns of developed

country bioethics. In any case, Daniels's argument also received a significant boost when Rawls noted that he generally supported Daniels's approach to addressing health needs. (Rawls, 1993)

327. Nevertheless, despite Rawls's support for the argument, the widespread acknowledgement of its originality and importance, and the animated discussions it generated, Daniels himself has now openly identified its shortcomings. (Rawls, 1993: p 184; Daniels, 2007) He readily identifies the theory's lack of practical guidance in making resource allocation decisions simply based on the effects of health impairments on equality of opportunity. And second, he admits to the egregiously generous causal connection made between healthcare and health that ignores the non-healthcare determinants of health, while also lacking a broader 'population health' perspective. His two major revisions are his creation of a list of principles of fairness to the decision making process of allocating healthcare resources. And second, he claims to have incorporated social determinants of health research, and a population health perspective.

328. So, taking into account his two revisions, how does Daniels now specifically integrate health concerns into the Rawlsian framework, and then defend it? He starts his argument by discussing the concept of needs, and in particular, health needs. He writes that there is widespread agreement that needs related to normal species functioning have special moral weight. In order to lay the groundwork for connecting these special 'health needs' with Rawls's use of an 'objective index of well-being' that are represented by primary goods, Daniels draws on Scanlon's discussion of an 'objective' truncated scale of well-being by which individuals can make claims on one and another for assistance. That is, Daniels wants to establish that health needs are 'objective needs' that work in a similar way to Rawls's idea of primary goods, and they can now also be supported by Scanlon's moral contractualism: what we as reasonable individuals owe each other.

329. Though Daniels wants to establish the objectivity of health needs, he recognizes that health needs are thought of as morally important because of the common belief that health is instrumentally necessary to doing anything in life or alternatively, in order to avoid pain and suffering. He dismisses

health as being necessary for achieving every goal in life. It seems obvious to Daniels that people can accomplish many other goals without species-typical functioning. And he considers the ethical motivations to meeting health needs as a way to mitigate pain and suffering as being vulnerable to the defects of utilitarianism that places happiness and its maximization as the only goal to life. While not fully rejecting the validity of meeting health needs in order to reduce pain or suffering, Daniels argues that he can offer an alternative account for meeting health needs that does not largely rely on an empirical relationship between meeting health needs and reducing pain and suffering. That is, Daniels wants to build a moral account of what is health, why it is important, and what justice requires in relation to it that rejects a purely consequentialist and utilitarian philosophy. And he does so not by building an entirely new theory but by extending what he and many others consider as the strongest alternative to utilitarianism, namely, Rawls's theory.

330. Daniels upholds and further clarifies his original conception of health as being the absence of pathology. Pathology entails the deviation from the normal range of natural functional organization of a species, and which causes harm. Based on Boorse's account of health as the absence of disease, Daniels asserts this conception of health to be 'naturalistic' or non-normative, meaning he considers this conception of health to be made up of 'biological facts' which are then overlaid with some value judgement about harm. So it is not simply that a functioning falls outside of the normal range, but there must be some aspect of harm consequent from it.

331. Daniels then identifies six objective 'health needs' which roughly include adequate nutrition, safe living and working conditions, exercise and rest, medical services, non-medical personal and social services, and an appropriate distribution of social determinants of health. (Daniels, 2007: pp 41-42) He then argues that meeting these needs is necessary in order to protect normal functioning which in turn protects access to the fair share of the range of life prospects. Rational individuals, such as those behind Rawls's veil of ignorance, will want to maintain their normal functionings to pursue as well as revise their life plans. Thus, they have a fundamental interest in maintaining normal functioning or more accurately, avoiding and

mitigating pathology. In order to protect their access to their fair share of life plans, these individuals will seek to satisfy the six objective 'health needs' of citizens.

332. After trying to explain the moral importance of health needs, health, and its instrumental role in the equality of opportunity to pursue life plans, Daniels moves to justify his requirement to protect such equality of opportunity by drawing on Rawls's theory of justice as fairness. If health is the absence of pathology—or the presence of normal functioning—justice requires protecting normal functioning as it is an important component of the equality of opportunity to achieve a fair share of the range of life plans in a given society. By asserting the objectivity of health needs, and articulating their crucial role in a person's life course, Daniels considers it possible to integrate health needs with Rawls's list of primary goods and distribution principles. It is important to recognize that in advocating for the satisfaction of health needs, Daniels transforms Rawls's equality of fair opportunity principle into a principle of careers open to talents, and then that into an all encompassing pursuit of a fair share of the normal range of life plans. Daniels envisions a thoroughly meritocratic society which Rawls did not intend. (Rawls, 1971: p 105-108; Daniels, 2007: p 54)

333. This expansion of opportunity from jobs and offices to normal range of life plans, Daniels terms the 'broadening of fair opportunity'. While he recognizes that such a broadening requires altering Rawls's theory, he considers such changes to be defensible. Indeed, such a broadening of fair opportunity to include health needs is considered to give Rawls's theory more power. While highlighting the role of health in the fair opportunity to achieve fair share of life plans, Daniels fully recognizes that other goods, such as socio-economic goods are also strategically important. He sets aside a discussion on what variety of other goods could be strategically necessary or considered objective needs by stating that his argument rests on a 'specific calculation' that institutions meeting health needs have a central impact on shares of the normal opportunity range and therefore, should be governed by the equality opportunity principle. (Daniels, 2007: p56)

334. In order to see concretely how Daniels merges his argument for health/health needs into primary goods, it is necessary to consider how Rawls handles inequalities among individuals. Rawls identifies two sources of inequalities in the lives of individuals, keeping in mind that he assumes that all individuals fall within a normal range of physical and mental functionings over the life course. One source is the natural lottery, which determines the quality and breadth of psychological and somatic talents and skills one is endowed with at birth. This natural lottery is also thought to affect to some extent motivational traits, attitudes, and preferences.³ The second source of inequalities is the social lottery which encompasses early life conditions determined by family, caste/class, and so forth. Such early life environments are also thought to affect psychological traits such as preferences and motivational traits. Rawls aimed to correct the arbitrary disadvantages that arise from the 'non-chosen' social malformations of the talents and skills a person is born with. And in recognizing that those with naturally lesser talents and skills would be at the bottom of the social hierarchy, even after the arbitrary influences had been corrected, he aims to ensure that they are as advantaged as possible through the Difference Principle.

335. Neither natural nor social inequalities are deserved by individuals, Rawls argued, thus the two distribution principles of justice worked in combination to mitigate the consequences of those inequalities while ensuring basic social institutions work to the advantage of the worst off. One would ideally like to be born with abundant talents and skills as well as born into a family and social environment that is advantageous. However, Rawls uses the Veil of Ignorance to show that the sheer possibility of being born into the opposite situation would compel individuals to reason in such a way that produces a society implementing his two distribution principles. Whether

³ This distinction between natural and social sources of inequalities is difficult to sustain especially in light of social determinants of health research. For example, Richard Barker's research connects the impact of a woman's deprivation on her child in-utero and the child's health later in adult life. And Pogge rejects the wholly random nature of natural talents by pointing to the caste and class influences on mating and procreation. Natural endowments are socially affected to some extent.

individuals would indeed reason in this particular way has been extensively questioned in the literature that followed. (Pogge, 1989; Dworkin, 2000)

336. Daniels builds on Rawls's analysis of the inequalities arbitrarily created by the natural and social lottery by making an analogy between pathology and the social lottery. Just as there is an ethical requirement to counter the disadvantages experienced by individuals from their early social environment or to balance out the advantages some individuals get from their social environment, Daniels argues that there is a requirement to mitigate the disadvantages produced by pathology. While he does not use the term 'pathological lottery', it may be apt to describe his analysis. Moreover, Daniels implies that given the recent research on social determinants of health, the analogy between pathology and the social lottery becomes even closer. Pathology in an individual can arise from the social environment—'including class, gender, race, and ethnic inequalities in various goods'—and therefore, any disadvantages that follow are not deserved and should be mitigated from affecting a person's life prospects. (Daniels, 2007: p55)

337. Importantly, Daniels makes it quite explicit that his analysis of mitigating pathology in order to protect equality of opportunity functions in the same way as trying to correct for malformed talents as skills. The aim is to put individuals back to the place they would be with respect to their life prospects had they not had the pathological condition. The aims of any and all institutions affecting health of individuals, in order of priority, are to prevent, restore, rehabilitate, and compensate individuals in regard to pathology. And interestingly, following Rawls, for those individuals where there is no possibility of restoring or approximating normal functioning, it is not principles of justice that apply but those of compassion and beneficence. The health needs of those individuals with severe and unalterable functioning constraints and those likely to die prematurely are outside the scope of justice. (Daniels, 2007: p59)

338. Two important points of Daniels's analysis must be noted. First, despite making an analogy between the disadvantages of life prospects that follow from early social conditions with the consequences of pathology, Daniels does not take a clear stand as to when individuals become

responsible for their own life prospects and pathology. There is controversy as to why Rawls speaks about the necessity of individuals to take full responsibility for their preferences given that it is impossible to distinguish what part of those preferences are formed by nature, early social environment, and free choice. Any claims for resources or primary goods beyond those allocated that can be traced back to preferences are not likely to be recognized in a Rawlsian system. Daniels, however, readily admits his silence on the role of individual responsibility for one's normal functioning. Despite the multiple causal factors that determine species typical functioning—genetic endowment, conversion skills, exposure to material goods, and social environment, individual choices—Daniels is silent about what justice requires in relation to the different types of causes of constraints on normal functionings.

339. Because social determinants are increasingly recognized as influencing species-typical functioning, Daniels finds it justifiable to continue with the focus on claims to normal functioning irrespective of the causes of constraints. That is, while individuals in a Rawlsian society must self-regulate their preferences in order to ensure that their resource requirements fall within their entitlements, Daniels does not hold individuals responsible for how frequently or large are the amounts of resources required to bring people back into the normal range of functioning. For example, a skier can repeatedly draw on resources to mend broken bones. And his claim cannot be evaluated based on his particular chosen life being largely made up of skiing. Rather, the claims to resources are evaluated in relation to his fair share of the normal range of life plans in the society. But they are not unlimited claims. Daniels expects that limits on the amount of resources individuals will be able to actually get will be decided through public deliberation using his benchmarks of fairness. Nevertheless, the role of volitional behaviours (agency/responsibility/ preferences) influencing the causal pathways to health functionings is morally ambiguous in Daniels's theory.

340. As previously stated, Daniels began revising his initial argument for two reasons. First, his initial framework for assessing health needs based on

their effects on opportunity did not provide sufficient guidance in the allocation of healthcare resources. Other philosophers and the public disagreed with his analysis that the most reasonable way to allocate resources is according to effects on opportunity. From this, Daniels derived the lesson that reasonable people disagree on the proper reasons for allocating healthcare, and so there must be a fair process to determine such an allocation. So Daniels embarked on identifying criteria for public deliberations that could be added to his initial social justice framework. Meanwhile, Daniels also became exposed to research on the social determinants of health. This challenged his previous understanding of health needs as being satisfied by healthcare institutions, even broadly construed as including clinical and public health. But rather than undermining his argument, Daniels perceives that a fair or just distribution of these social determinants approximates a Rawlsian just society. That is, his extension of Rawlsian justice would not only justly distribute healthcare, but can also be seen to be justly distributing things that are being talked about in the social determinants of health research. Thus, he argues that 'justice is good for our health' meaning that a scheme of Rawlsian justice will also improve overall levels of health in a population as well as relative inequalities in health.

341. In order to see how Daniels distributes the social determinants of health, it is helpful to see how he initially introduces the concept of social determinants of health. Daniels states that in societies throughout the world there is a socio-economic gradient in health. That is, the higher ranking social groups in a population usually have better health, or normal functionings. While it may seem logical to see gross poverty in developing countries as the cause of such a socio-economic gradient in health, such a health gradient also exists in developed countries. So, Daniels argues, there must be a link between the socio-economic gradient and the health gradient in populations. Aside from just this socio-economic gradient, there are also visible differences or inequalities in health functionings across various social groups defined by race, ethnicity or sex. Such differences exist even after controlling for income, education or access to health insurance which means that something about the group characteristics is correlated or causing the

health inequalities rather than healthcare, individual choice, or material poverty. Given these two observations about the gradient and social group inequalities in health within societies, Daniels refers to a range of empirical research findings on the social causes of health inequalities.

342. While Daniels seems to be aware of much of the broad range of research on social determinants, he links such research to Rawls's theory by transfiguring the breadth of social determinants into Rawlsian primary goods. So, for instance, health and social capital research points to the level of political participation, as one social determinant. Daniels translates this into the primary good of political liberties. Other social determinants such as level of education, day care and early childhood programs, social inclusion of persons with disabilities, level of healthcare, and workplace conditions are categorized as part of the equality of opportunity and social basis of self respect primary goods. After finding it possible and justifiable to transform what are currently identified as social determinants of health into primary goods, Daniels then considers their distribution. He evaluates how the Rawlsian distribution of these social determinant-primary goods will improve overall health of populations as well as produce just health inequalities. His two main conclusions are that as a Rawlsian system of justice morally requires improving the shares of the worst off in any society from where they are now, a Rawlsian scheme will certainly improve the absolute levels of health of the worst off. And second, if it turns out that the income inequality thesis is indeed true, the 'flattening' of the socio-economic gradient from the two Rawlsian principles, based on certain empirical assumptions, means that there will be improved overall health and less relative health inequality.

343. Because Rawls did not originally have in mind as Daniels does that health differences are morally important inequalities across individuals, Daniels expects that there will be conflicts or tradeoffs required by Rawls's two principles of justice. In the first instance, there is seen to be no conflict between highest equal political liberties and addressing health inequalities. And given that addressing health needs is part of the equality of opportunity good, it is not considered to be in conflict with the second part of the second principle. Of course, with there is still ambiguity over how to rank one kind of

equality of opportunity measure against another. Daniels expects that to be dealt with through the reasonable decision making process.

344. Daniels does identify a possible real conflict between allowable socio-economic inequalities, previously geared to the advantage of the worst off, and distributing various social determinants of health. That is, the Difference Principle allows rising inequality in income and wealth if the shares of the worst off are also improving. However, social determinants research seems to show that rising income inequality affects health inequalities and thus, equality of opportunity. The trade-off seems to be more income for less health/equality of opportunity for the worst off. Indeed, the primary good of the social bases of self-respect should constrain the income inequality that would affect the psychological aspects of self-respect. And thus, income inequalities would probably be severely constrained in the first place, prior to their possible influence on psycho-biological pathways to health impairments. That is assuming, however, that the social basis of self-respect is a parallel concept to the psycho-social factors implicated in the income inequality and health inequality research. For example, if Rawls's social bases of self respect are unrelated to Wilkinson's references to envy or anxiety related to income inequality, then there indeed may be a conflict between health achievements and allowable socio-economic inequalities. That is, even though Rawls disallows envy in his theory, empirical research shows that 'status anxiety' has a causal role in premature mortality and chronic impairments.

345. There is another possible conflict between Rawlsian principles and Daniels's extension. Improving the socio-economic share of the worst off can put their health at risk. The worse off may choose to pursue opportunities that makes their socio-economic situation better but at the cost of risking their health functioning. Mining, road construction, or working on an oil rig are jobs that often pay better because of the higher physical risks involved. Daniels worries that refusing to allow individuals to risk their health in order to acquire other goods, where conditions of choice are free and fair, can be unjustifiably paternalistic. He suggests the pragmatic solution is to accept that justice will be rough, and it will not ensure the removal of all health

inequalities. Moreover, Daniels suggests that another avenue for resolving uncertainties in how the Rawlsian system distributes social determinants is to pursue deliberative democratic reasoning.

346. As the second part of his revision, Daniels puts forward 'benchmarks for fairness' or accountability for reasonableness in decision making about health issues. It seems fairly clear that these benchmarks for fairness are geared towards health resource allocation decisions within the traditional healthcare sector. Importantly, the benchmarks for fairness are really about the fairness of processes that ration or set limits to resource claims. They are not about the precautionary principle in public health, scientific objectivity of determinants of health, double-checks about justness of residual health inequalities, and so forth. The four criteria he identifies for a fair process of deliberation include publicity, relevance of reasons, mechanism for revisions and appeals, and voluntary or required regulations to ensure the other three benchmarks are followed. Daniels considers his benchmarks to be applicable to both public and private organizations as well as for medical services, public health, and other non-health sector decision making impacting health.

347. The reasons for these benchmarks, Daniels writes, is that reasonable people disagree on how to set limits, and the general principles of justice, specifically those provided by a Rawlsian analysis, do not resolve these controversies. The particular rationing problems Daniels identifies include whether to allocate resources to those individuals that are worst off in terms of their health condition, or those who will likely have the best outcomes as a result of deploying healthcare? Or, should healthcare be allocated to maximize overall health of a group or population or should it allocate it according to other principles? Should finite resources go to helping many or to a few? Daniels contends that the equality of opportunity principle does not tell us whether to allocate money and resources to those which will produce best outcomes, most overall benefits, or make use of fair, weighted chance lotteries. While he suggests that there is great value in taking a case by case approach and building up a set of fine-grain set up principles, in the short to medium-term, he reasons that identifying a fair-process of decision making is necessary and best way forward.

348. Daniels takes the position that there is a priority for prevention. And the priority of providing treatment, meaning restoring individuals to normal functioning, over enhancement, meaning improving someone's functioning that is already within the normal range. The difference between treatment and enhancement for Daniels lies in the pathology of the condition. There has to be an 'objectively ascribable need for the prevention or treatment of significant pathology'. (Daniels, 2007: p 166, pp 30-55) Importantly, Daniels compares the motivation to enhance one's health functionings as expressing one's preferences. Given that Rawls and Daniels will not compensate directly for the 'natural distribution' of personal features, it is the individual's responsibility to rethink their goals, to adjust their conception of the good in light of their given personal features and the set of primary goods that they are guaranteed. Strangely, if the individual suffers significant psychological distress from being unable to adjust their preferences then they would have claims to psychological care to deal with their frustration. Thus, a person's fair share of a range of life prospects is significantly determined not only by the nature of the equality of opportunity and other primary goods relative to a given society, but also by their initial natural endowment.

349. In Daniels's revised argument, and especially the expanded discussion in the draft monograph, he attempts to address a number of far reaching critiques and weakness of his previous argument. (Daniels, 2007) The most important of the weaknesses was that he simply extended Rawls's theory which meant that if Rawls's theory is fatally flawed then his extension would also fall. He handles the complete dependency on Rawls's theory in a fairly odd way. Despite the fact that the bulk of the monograph and his main argument discusses how health is bound up in the justification for the equality of opportunity principle in Rawls's theory, how a Rawlsian just society distributes social determinants of health fairly, and how his four principles are derived from some characteristics of Rawlsian 'well-ordered society' he nevertheless, repeatedly attempts to distance himself from Rawls. He is not defending Rawls's theory, he says, he is just showing one example of how a theory of justice could handle health needs.

350. While substantially relying on a Rawlsian analysis of objective needs as primary goods, Daniels also attempts to buttress his argument by drawing on other theories. He draws on Scanlon's arguments for objective needs of well-being that can be claims for assistance made by reasonable people on each other. And interestingly, Daniels also attempts to show a convergence between his argument for the equality of opportunity and the two most prominent alternatives to Rawls's theory. He writes that the CA is different only in terminology and indeed, supports the same idea of opportunity. And, Daniels writes, while those advocating the equal opportunities for welfare approach disagree with Rawls on whether to directly compensate for natural differences in talents and skills, they do not disagree on whether to address the disadvantages that result from disease or disability. They just do not want to privilege the disadvantages from disease and disability over inequalities in talents and skills. So, on the one hand, Daniels distances himself from Rawls by stating that he is not defending it as a theory. On the other hand, he tries to show how his argument thoroughly works within it, while also showing how other approaches also have enough in common with Rawlsian conception equality of opportunity.

351. **Section III: Daniels's theory versus the CH.**

352. The CH argument is different both in terms of avoiding the weaknesses of Daniels's argument as well as in having independent strengths. Daniels's argument may initially seem quite similar to an argument for a CH. It is true that early CA put forward arguments to replace Rawlsian primary goods with capabilities while generally agreeing with the rest of Rawls's theory. And it may seem that the present argument for CH is quite similar to Daniels's as he also discusses the social determinants of health. Moreover, it may seem that Daniels is making a similar cosmopolitan argument because he now discusses health issues in developing countries, human rights, and the right to health. While meaningful and subtle differences can be shown in regard to each of these aspects, the CH argument differs fundamentally in that it is internally more coherent, while Daniels's argument is a piecing together of what has been previously left out and opportunistic for trying to frame it as full, global theory of health justice.

In specific, Daniels notion of objective health needs is flawed for asserting that a coherent definition of health is 'scientifically objective,' and for identifying six health 'needs' that are not grounded in any epidemiological theory or research. Perhaps, most importantly, Daniels profoundly misunderstands the social determinants of health research by transforming them into primary goods or resources to be distributed. And indicative of the ad hoc nature of the theory, he remains silent regarding how social determinants have influence across national borders, and how that raises issues of both rights and duties across societies. Daniels presents this as a challenge to his readers rather than as a fundamental shortcoming of his theory. Given that threats to health cross national borders, and the greater connectedness between individuals across the world, the inability to have a thoroughly global approach is a fundamental weakness of a 'full' theory of health justice.

353. Second, Daniels incorporates the recent research on social determinants of health into his argument in a very superficial and crude way. It was quite a glaring error to build an entire theory about health and only recognize healthcare as the primary determinant. It showed an inadequate understanding of the determinants of health, and unfortunately, it still remains inadequate. In the revised theory, health is now determined by healthcare broadly construed plus 'inter-sectoral' social determinants. But his list of six health needs/healthcare now including social determinants, is not grounded in epidemiology theory of causation or distribution. Simply adding social determinants to the health needs list does not reflect the monumental debates occurring in the field of epidemiology regarding what can and cannot be considered a scientific cause of disease, or constraints on health functioning. And adding social determinants at the end of the list actually repeats some of the items on the list showing an inadequate understanding of the level or scale of social determinants. For example including adequate nutrition and safe working environment as needs along with social determinants as a need does not fully appreciate the 'general thesis' of social determinants research while the other needs are specific causes. Adding

'the right distribution of social determinants' to the end of the list of health needs from his previous theory is akin to writing 'and social justice'.

354. Though Daniels has cooperated with social epidemiologists, he does not either fully recognize or want to identify social determinants as deep sociological processes. Instead, he wants to translate them into goods or services that can be provided to people. This translation of deep sociological processes into primary goods/resources is not convincing. Furthermore, Daniels does not distinguish between or evaluate the various 'schools' of social determinants research. (Kawachi *et al.*, 2004) He picks and chooses between the various theories and finds that some of the determinants match the list of primary goods. Social determinants research is quite nascent. It has so far been productive in identifying the distribution patterns of health inequalities, but there is still much work to be done on the causal pathways. (Berkman *et al.*, 2000; Berkman, 2004) Is it psycho-social pathways, is it social support, is it the political economy, or is it all of them? Can one model be able to incorporate all of them?

355. And importantly, in selectively picking from the variety of proposed determinants, Daniels skips over discussing the important distinction in the causal pathways between social determinants of health of a group versus an individual. Without an identifiable link between the health properties of a group and an individual, Daniels seems to be making arguments for group justice rather than arguing for a theory where individuals are primary moral agents. He argues that a population has been treated badly if its overall health is worse than it could have been under another policy. How a 'population perspective' and a Rawlsian system can go together is not fully defended, especially as Rawls was motivated to counter utilitarian reasoning. No individual can make a direct claim with regard to social determinants affecting their health as the social pathways to impairments are identified in aggregate statistics, not in the case of particular individuals. Health inequalities become unjust only at the population level, not at the individual level.

356. In contrast, the CH argument builds up from the individual and argues for the importance of some central human functionings. For a person

to be healthy over the life course, they should be able to achieve various biological and mental functionings as well as agency functionings. That is, aside from their somatic functionings, they need to be able to have control over their body and behaviour. Such autonomy and agency is not only strategically important in order to protect and promote one's biological and mental functionings, it is intrinsically valuable for self-respect, dignity, or self-worth. Though healthcare is necessary to promote and protect health functionings in acute situations, it is the agency functionings over the life course that directly and indirectly have more effects on the biological and mental functionings of the individuals. Social determinants research shows that such agency functionings are indirectly related to health functionings through psycho-immunological pathways to impairments. That is, constraints on autonomy and agency can be a direct threat to health functionings such as through physical violence, while stress resulting from frustration of efforts to realize one's intentions and life plans can produce impairments through psycho-immunological pathways.

357. It is a profound misunderstanding to imagine that a CA is simply trying to provide the same resources according to a different calculus. It is through examining the importance of autonomy and agency in the protection and promotion of health functionings throughout the life course that it becomes apparent how the CH envisions individuals as active participants in the pursuit of their life plans. The CH of any individual must be evaluated in relation to their individual endowment and specific material and social environment. More importantly, the active self-realization of agency or autonomy in pursuing health functionings or other goals is important in improving health of individuals. Protecting one's reproductive and sexual health as a woman in a developing country or protecting oneself from an infectious disease epidemic in a rich country requires active, vigilant engagement with the immediate determinants of one's health over the life course. It is an actor-centred approach rather than the recipient centred approach that Daniels envisions.

358. In contrast to Daniels's use of species-typical functioning, the CH argument rests on a coherent definition of health. Health is based on

identifying various biological and mental as well as agency functionings as being intrinsically valuable and instrumentally valuable to pursue one's life plans in the current global society. It is a normative notion that is based on a cosmopolitan outlook that expects a minimum level of health functionings while also expecting there to be socially relative differences. But socially relative does not mean restricted to the nation-state. Socially relative can also mean relative to global society. Such an analysis is initially based on the outlook of physicians practicing medicine in globally cosmopolitan cities. Such cosmopolitan physicians recognize that the human species has particular characteristics in order to be able to recognize the being that comes into the office as a member of the human species. But the health of a given person is assessed based on whether there is any presence of impairments as well as how capable the individual is to pursue their goals in light of a variety of personal features and choices. A person is compared to their age, sex, and race/ethnic group but also with their own goals. Whether the person's measurements fit on the normal distribution curve for the species useless and the comparison with the country's population is a superficial and preliminary guide especially given the time lag between when the chart was created and the diversity of new members entering the population.

359. The capability to healthy argument also makes use of a theory of causation and distribution of health functionings. Daniels uses a list of needs such as nutrition, exercise, clinical services and social determinants. In contrast, the CH clearly sets out to model the range of causal factors of health functionings, not just impairments. The CH has descriptive power in explaining health inequalities by modelling the combined effects of the endowment, conversion skills, exposure to material goods, social factors, and individual choices. Social determinants research can be incorporated in the model according to their influence on the range of causal components of the CH. And importantly, the model posits the CH as a dynamic process that is continually changing over the life course. Justice does not give individuals social determinants but ensures that individuals have capability through justifiably influencing the social basis of each causal component.

360. The CH has normative power through the argument that individuals have a moral entitlement to social basis of the CH. Such an entitlement arises out of the equal moral worth and dignity of every individual. This means that justice requires supporting central human capabilities and functionings through affecting genetic endowment, material/social conditions, and behaviour. The extent of interventions into each of those arenas will depend on a range of factors including specific knowledge of the determinants, respect for choice, resources requirements, and public deliberations. In some instances, such as with children and individuals with limited agency, there may be more basis for intervening. In contrast, Daniels is mainly concerned with the inside and outside of health sector demarcation, and establishing the principles for reasonable and accountable deliberation on the distribution of healthcare resources. The CA has no bias towards the health sector, and indeed, recognizes that health functionings over the life course are determined more by the social and material conditions outside the health sector. The CA has always recognized the social determinants of health, and now through the causal model of a CH, it may be able to show how a capability analysis might be useful in integrating various empirical social determinants research.

361. Two final points about the CH argument. First, it remains to be seen to what extent public deliberation will play a role in a system of capabilities. What is clear however, is that public deliberation is not a result of the CA's inability to guide decisions but because it considers such deliberation central to social justice. In comparison, Daniels's arguments repeatedly rely on public deliberation whenever the theory is insufficient. His theory of health justice, in the end, does not assist in deciding which health issue to address first, second, or last. Instead, Daniels defers to a reasoned public debate. Daniels's theory also does not assist in deciding how to address health inequalities between groups. Despite distributing social determinants justly, in applying his principles to real world health issues, Daniels's argument cannot identify how to choose between improving the health of certain historically disadvantaged groups, or residual inequalities among groups, or any other offensive correlations. Instead, once again, public deliberation will

decide. Moreover, Daniels also expects there to be public deliberation whenever there is controversy as to whether a particular deviation from the normal range of functioning is harmful or not. He writes that his theory is as strong as the current practice of the biological science's understandings of pathology.

362. The CH has the advantage of both arguing for a level of health functionings across the human species as well as being grounded in social reality. That is, as Sen argues, the CA does not need to construct a comprehensive and perfect set of social conditions in order to evaluate the justness of particular situations. Both version of the CA identify quite immediately where and how the capabilities of individuals are being constrained. Importantly, Sen explicitly recognizes the multi-dimensionality of achieving equity in health capabilities across individuals. One person's health functioning may be more constrained than another because they have less money, have a second health constraint, and so forth. Daniels, despite using Rawls's distributional principles that explicitly articulate priorities, nevertheless, is faced with ambiguities about how to make tradeoffs once health needs are introduced. Primary goods should be a clear indication of how individuals are doing. But Daniels introduces inequalities that cut across the primary goods. While the CA has consistently identified the multi-dimensionality within and across capabilities, Daniels resorts to saying that public deliberation will have to decide how to make those tradeoffs. The clarity and simplicity of an objective list of primary goods, and their distribution principles seem to be undermined and unstable if public deliberation has to be repeatedly invoked in order to make decisions.

363. Lastly, the CA addresses the aggregation problem in two ways. Nussbaum clearly states that there are to be no tradeoffs between the ten central capabilities or across individuals with respect to those capabilities. They are pre-political entitlements such as basic constitutional rights. Similar to how these constitutional rights are not traded-off, neither can the basic capabilities. Sen, on the other hand, because he does not identify any minimal capabilities, has simply said that tradeoffs will happen. But in light of his argument that there does not necessarily need to be a comprehensive

theory of justice identifying principles for aggregation, a 'comparative theory' could easily identify where and how to make a trade off in a particular situation. And his discussions on incompletely theorized agreements go some way towards identifying how to make aggregative decisions when there is reasonable disagreement. Neither Nussbaum nor Sen, however, seem to be so hard set in trying to identify a procedure to decide how to ration resources. Daniels, who is keenly aware that the United States spends the most on healthcare with little improvements in health, is greatly concerned with the need to set limits and to ration resources. The CH, because it is concerned with addressing the material and social environments determining individual capabilities, is less directly concerned with how to distribute expensive medical care. Whether the CH can address healthcare rationing decisions in rich countries remains to be explored. (Anand, 2005; Anand *et al.*, 2005) The potential seems to exist as CA has been applied to other issues in developed countries such as unemployment and social exclusion.

364. In summary, what a CH argument accomplishes is that it establishes a coherent conception of health, sets up a framework to evaluate the determinants, distribution, and consequences of health functionings, emphasizes the self-realization of rights/capabilities over the life course, and identifies universal entitlements to basic health functionings for every human being. At this point, it does not offer case studies as does Daniels, nor has it been applied to particular problems such as aging populations, women's health, or HIV/AIDS. However, the CA and CH argument comes out empirical research on acute and endemic malnutrition. And both Sen and Nussbaum consistently ground their reasoning in empirical research and personal narratives of individuals. And the nascent but growing research such as by Alkire and others document real-world application of the CA. There is enormous potential for conducting empirical research on the CH to show its strengths.

Chapter 7: Group Capabilities

365. The CA takes as its starting point that the individual human being is the primary agent of justice. Such an approach is distinct from other approaches to social justice which start with a conception of community, or the nation-state when thinking about global justice. (Walzer, 1983; Kymlicka, 1989; Taylor, 1992; Sandel, 1996; Rawls, 1999) Furthermore, even though many liberal theories purport to begin with the individual as the moral agent, they implicitly assume insiders and outsiders; thus, they start with a group prior to reasoning about justice and individual moral agents. (Sen, 2005; Nussbaum, 2006) The CA unequivocally begins with the individual, though, as discussed in Part Two, it also differentiates itself from other liberal theories that focus on distributing resources to individuals or increasing their welfare. The CA strives to avoid the inequalities across individuals that can result from the aggregate analysis used by utilitarians. And it also strives to avoid the inequalities that arise under resource theories when individual needs for goods and social conditions fall outside their standard set of entitlements. One reason resource theories have limits on claims is to restrict individuals from draining social resources beyond a point where they threaten the continued social production of resources.

366. In comparison, because the CA is exclusively focused on individual capabilities, or guaranteeing a minimum set of CHCs, the CA appears to avoid aggregate analysis within or across individuals. It does not presuppose the maximization of capabilities or that there will be a need to put caps on per-person resource expenditures. However, the CA almost certainly cannot avoid the puzzle of aggregating capabilities within and across individuals as it is a practical issue central to implementation. At the same time, the CA also cannot continue to avoid recognizing group capabilities. Group capabilities initially seem to be an abhorrent concept to anyone espousing the CA. For example, the CA vehemently rejects the utilitarian treatment of aggregate

social welfare as if it was the welfare of a 'super-person'. Yet, certain kinds of health phenomena and their underlying sociological processes cannot be disaggregated to individual agents thus suggesting the notion of group or 'population health'. As it is recognizable that some populations and sub-populations are healthy while others less so, it seems there is a need to integrate such a population health notion into the CA through the idea of a group capability and group CH.

367. Population health presents interesting challenges for any ethical approach or theory, including the CA, which focuses on the individual as the primary agent of justice. The CA is premised on normative individualism and recognizes group or social phenomena only through their influence on individual capabilities and the expression of certain capabilities. That is, social phenomena enter capabilities analysis through the social basis of the causal components of individual capabilities. And sociability of the human animal is expressed in the specific content of capabilities such as some of Nussbaum's CHCs. But society or groups are never considered as entities with independent ethical status alongside individuals.

368. It may be of no consequence to refer to group capabilities in descriptive analysis. A group of individuals can be said to exhibit a certain kind of capability or be constrained in a particular way. The Senian capability device, for example, can be applied to any sort of capability and indeed, one which belongs to an individual or a group. The idea of group capability presents a problem only in the normative realm when ascribing ethical status and entitlements to capabilities. Prominent among the worries is the possibility of a conflict between group and individual capabilities. The shadow of the violence that can be perpetrated and justified by utilitarianism in the name of aggregate welfare looms large for the CA. The puzzle is whether conceptualizing a group capability is possible without it ever being the justification for restricting or ignoring the capabilities of individuals.

369. A full discussion of group capabilities is not possible presently but a few points in specific relation to health capabilities are put forward. Given the central concern for the individual health in the CA, and obviously the CH, the present chapter explores the relationship between individual health and

population health. Geoffrey Rose argued for recognizing the important difference in addressing the cause of impairments in individuals versus the causes of the incidence rate of the impairment in the population. (Rose, 1985) A discussion follows on whether social determinants of such incidence rates can be addressed as public goods or are indeed, group features. Though clearly not a thorough analysis, the brief discussion on groups and health aims to present some material to motivate CA advocates to explore the possibility and implications of recognizing group capabilities, particularly in relation to the CH.

370. **Section I: health and collective action problems**

371. In contrast to the social contract tradition which conceives of individuals as being purely self interested and seeking mutual advantage, Nussbaum emphasizes that the CA sees social cooperation as being made possible through individuals conceiving their good as having shared ends. The incorporation of the pursuit of the good by others into one's own conception of the good is what defines interdependence, fellowship, and sociability of human beings. However, the conception of individuals as self-interested actors has been longstanding, compelling, and pervasive. It motivates a variety of explorations into the types of problems such a conception of persons creates for social cooperation. Such examination of the implications of a self-interested individual can be seen in political philosophy as well as in economics which considers problems of collective action and cooperative conflicts.

372. Until fairly recently, the social or collective action aspect of human health functionings has been largely obfuscated by the general perception that health is an individual level phenomenon. It must be recalled that the most prominent model of health causation focuses on individual-level factors of genetic endowment, exposure to hazardous materials, and behaviours. This is not to say that health and social cooperation problems have not been considered at all. The influence of economics in the practice of public health has motivated the framing of some health issues as collective action problems, public goods, or externalities. For example, in the study of population growth, fertility decisions are often framed as being made by self-

interested individuals causing burdens on aggregate welfare. Or healthcare expenditures are analyzed in reference to 'moral-hazards' or self-interested individuals unfairly or deceptively taking advantage of group resources. In these types of situations, instead of an individual's good seen as being partly constituted by another achieving their conception of the good, certain self-interested individuals are seen to be violating the principle of mutual advantage that underpins social cooperation between individuals.

373. The collective action or group-level problems in the health sphere have become more pronounced recently in light of at least two phenomena. First, the rise of new and resurgent infectious diseases has made it abundantly clear that the mortality of human beings is a function of the interactions between individuals within and across national borders. In its clearest example, the transmission of infection from one individual to another is a social phenomenon. But it is also clear that the social environment in which individuals are situated also determines their biological vulnerability to infectious diseases as well as their ability to mitigate their vulnerability. The second collective action aspect of health is reflected in the growing corpus of epidemiological research that identifies social processes as determinants of health functionings. That is, social processes not only determine the material exposure to harmful or necessary goods affecting health functionings; a variety of non-material social conditions' influence on individual agency, autonomy, dignity, and other psychological experiences influence a person's health functionings over the life course. This was discussed in Chapter 2.

374. Despite being a great achievement, the recognition of group-level or social causes of health constraints in individuals poses a problem for a theory propounding normative individualism. Based on aggregate analysis, it is possible to identify the social cause of the incidence rate of impairments in a population. But it may be impossible to connect a social determinant to a particular impairment in a particular individual. At the individual level, the scope of ethical claims would be limited as it would only be possible to identify the proximate biological and material causes of the impairment. A specific individual could not make a claim for protection against social determinants because it is not possible at present, if ever, to establish a

meaningful chain of causation between a social determinant and individual impairment. Thus, the claim would only be to the mitigation of the consequences of impairments, if that is possible. Thus, the normative individualist is faced with a dilemma of being able to affect the social determinant or cause at the population level for the benefit of unspecified individuals. But does doing something in the interests of unspecified individuals constitute recognizing a group? Utilitarians would see no problem here as influencing the social determinant would increase the aggregate welfare of the group, even if benefits could not be traced to particular individuals. But normative individualists have a significant problem because there is no clear causal pathway between structure and the agent.

375. An economist might immediately frame this as a public goods issue. A public good is a good that no single individual can consume exclusively, and the amount of the good does not decrease from being consumed. For example, draining a malaria infested swamp next to a community of individuals would be considered providing a public good. Draining the swamp in order to benefit one individual could not exclude its benefits to others. And the benefit to one individual does not decrease the amount of the good. Seen from the perspective of the CA, providing such a public good supports the health capabilities and functionings or CH of individuals living next to the drained swamp. Such an effort is considered to be focused on individual capabilities because it is addressing the material, social basis of each person's health capability. We know that a mosquito bite is likely part of the causal chain that leads to an individual being impaired by malaria. Thus, based on the knowledge of the causal pathway, the public good is provided in order to support the capabilities of individuals living within the community.

376. However, when the cause of the impairment are social conditions which induce psychological experiences such as humiliation or stress which then lead to health impairments, it is hard to separate out the public good from the intrinsic features of the population. The malarial swamp as a physical feature and the social conditions of inequality are not equivalent in a way that both can be addressed through the public goods framework. Material conditions may be more amenable to be assessed as public goods,

while social processes need to be recognized as group features. Take another example. Protecting the CH of individuals could be the basis of programs to help individuals quit smoking, a widely recognized cause of lung cancer. However, helping one individual at a time to stop smoking, according to the each person's capability as an end principle, would not necessarily stop new individuals from beginning to smoke. The causes which initiate individuals into smoking continue to function in the surrounding social environment. The same applies to other behaviours such as poor nutrition, or excessive drinking. In order to intervene at the level of supra-individual influences on individual behaviour, such as culture, social norms, neighbourhood effects, and so forth we would have to acknowledge that individuals are not fully autonomous but partly or significantly formed by social practices. What ethical status do these supra-individual influences, which cannot be ascribed to any individual agent, but yet significantly influence individual capabilities have in the CA? It is insufficient to think of social conditions or influences on individual capabilities as simply being the combined actions of other individuals. Recognizing sociological processes would seem to indicate the existence of an entity called society or group.

377. Indeed, recognizing the causal factor of constraints on individual health capability may require recognizing groups. When comparing different possible causal factors of a chronic impairment among individuals within a population, individual genetic differences are often statistically significant factors of causation. In the CA, such genetic bases of a health constraint would be the basis for providing social support. Interestingly, however, when comparing two significantly different populations with different prevalence levels of the same chronic impairment, individual genetic differences are replaced by population characteristics as important causal factors. For example, individual genetic differences may be identified as significant causes or risk-factors for the high prevalence of heart disease in residents of Finland. But when comparing the causes of heart disease in the populations of Finland versus Japan, the average intake of fat and high cholesterol levels appear as significant factors. Because fat intake is high for most individuals in Finland, it does not appear as a statistically significant causal factor within

the Finnish population. Thus, the only real differences between those with and without high cholesterol and heart disease within Finland are individual genetic differences. The upshot of this is that the methodology of identifying causal factors of health functionings in individuals can involve comparing groups, and not necessarily individuals.

378. Changing the mean level of exposure of the entire group would mean an intervention to change a feature affecting the aggregate capabilities of the group for the long-term, even generations. Thus, despite specific individuals benefiting in differing amounts from an intervention or policy at a particular time, the primary beneficiary is actually the group. By changing the group feature, the collective health capability is improved and kept above a threshold even as people pass through it by birth and death. So now, even draining the swamp looks different from this perspective. It cannot be simply thought that the CH of a large group of individuals is improved because of the features of a public good, and its efficiency. Rather, the policy also improves the collective CH of the community in that location, irrespective of which individual is there currently or will pass through in the future. Changing social conditions, whether they are material conditions or social processes, which are aimed to outlast specific individuals are really efforts at changing the features of groups, and thus, group capabilities.

379. Addressing the cause of any impairment in an individual across the range of causal components is distinct from addressing the incidence rate of the impairment in the population. The reach of the CH causal model in explaining how social determinants that have influence through psycho-biological pathways and their varied effects across socio-economic groups are yet to be explored. It seems easy to fall into thinking of a population as a 'super-person' and explore social policies that can improve the super-person's 'population health' or capability. Difficult ethical questions follow from giving a population its own ethical status, and from making decisions using aggregate analysis. But it is hard to deny that individual health and population health are two distinct, inter-related phenomena.

380. **Section II: Aggregation**

381. It is familiar in political philosophy or economics to see groups as simply the aggregation of individuals, and the problem that follows from that tends to be about choosing between efficiency and equity. At the same time, debates following Rawls's distribution principles have focused on whether equality or equity is better understood as giving priority to some individuals rather than equal treatment as is often assumed. Human health concerns can indeed be framed in terms of efficiency or equity as economists frame it. Or as philosophers, starting with John Taurek have framed it, do numbers count in deciding whether to help one group of individuals that is larger than another? (Taurek, 1977) The issue of trade-offs or aggregation cannot be avoided even by the CA. Even the approach advocated by Nussbaum, and the argument for the CH, which sees a set of capabilities as pre-political entitlements belonging to every human being, cannot avoid the issue. Nussbaum says emphatically, in those situations where every individual does not have all of the basic capabilities, it must be seen as justice not being done. Some press such an argument further and point to the necessity to rank capabilities as resources are limited everywhere and must be efficiently allocated. Nussbaum may likely respond by comparing the CHCs to basic rights and reply that no one argues for tradeoffs when it comes to basic constitutional rights. Such basic rights are constrained only in relation to the exercise of other basic rights, but a right is never completely denied for another. Similar is the case for basic capabilities and aggregation of capabilities across individuals. The CHCs cannot be ranked but must all be provided. Where some cannot be fully provided up to the threshold level, then it must be seen as justice not yet being done.

382. Creating a supportive environment for individual capabilities often entails affecting the mean-levels of behaviour in the population. Changing the legal age for drinking, harsher penalties for drunk driving, making condoms freely available and without embarrassment are examples of efforts to change the social norms. However, the individuals who are most vulnerable to impairments are often the hardest to reach. These efforts to change the social norms do not reach individuals who may be isolated by social, economic, and even physical and psychological constraints.

Moreover, addressing the vulnerabilities of these few individuals does not affect the level of risk to the entire population. That is, the number of individuals who will face an impairment even though they are at small risk can outnumber the individuals in the high risk group or the 'tail-end' of the population. Public health programs that aim to maximize the health achievements of individuals are faced with aggregation or efficiency problems. Here, the CA and the argument for the CH reorient the moral function of public health. The respect for the equal dignity of the every human being means that consequential evaluation of actions to maximize health capabilities cannot stop short of addressing the constraints of those most difficult to reach. Improving the capabilities of the many does not make up for others not having their minimal or threshold level of capabilities commensurate with human dignity.

383. Peter Singer challenges Nussbaum with the critique that surely she would not spend significant resources to improve the capabilities of one individual at the cost of improving the capabilities of all others a little bit. (Singer, 2002) Such a challenge could be superficially addressed by responding that the CA would not deny the entitlement to the equal dignity of one individual for the benefit of the many. But perhaps that is too superficial a response to the underlying utilitarian analysis. A more measured response would be that it would depend on the causes and consequences of the constraints on the individual's capabilities as well as the range of responsible agents. The entitlement is to the social basis thus, realizing the capability could only occur through socially available pathways, or social bases, that respect the individual's agency and choices. Moreover, the presentation of this dilemma in terms of distributing resources significantly underplays the influences of non-material goods on the capabilities of individuals. It may not be just the distribution of resources that is necessary to address that one individual's constrained capability. And indeed, if it was just a pure matter of choosing to allocating resources to one, or for the many, respecting equal dignity would indeed mean less for the many in order to ensure the equal dignity for all. That is, a slight improvement for all would be worthwhile giving up if all others had basic capabilities, while the resources could provide one

individual with basic capabilities. If everyone is below the thresholds of basic capabilities then there is no dilemma of choosing between bringing the many and the one up to the thresholds; all of them have to be brought up to the threshold. And justice is not done until every one reaches the threshold.

384. **Section III: Biology and group rights**

385. Identifying and mitigating the determinants and consequences of health constraints in individuals can have repercussions for various groups to which the individuals belong. For example, if a genetic attribute is identified as a risk factor, then individuals who are identified with that attribute, their families, and others related to those individuals may find themselves facing discrimination. Or indeed, as experience with HIV/AIDS around the world has evidenced, when certain individuals are identified as being at high-risk, various groups they belong to become the target of social discrimination. At the same time, biomedical research can often have repercussions for groups while researchers deal respectfully with individual interests. For example, collecting genetic material for databases can be garnered through consent from individuals, but the methods of handling biological materials may violate group beliefs and practices. The creation of 'immortalized' cell lines may be anathema to shared group beliefs. Or interestingly, biomedical research into the genetic make up of a group of individuals may reveal information that contradicts shared understandings of lineage or place of origin that are central to group identity practices. These variety of ways in which addressing the health concerns of individuals can impact the shared beliefs and practices of groups highlights the necessity to recognize group capabilities, at least in particular reference to health concerns.

386. **Conclusion:**

387. The analysis of health at the population level is one of the most significant achievements in the field of public health. Despite the ferocious academic debates in epidemiology regarding the sustainability of the individual level bio-medical model in light of the population level analysis, there is much to be gained from making use of population health analysis. However, one of the interesting aspects of population level analysis is the question of where to draw the borders of the population. This challenge

becomes more pressing given that the conception of health as the CH advocated here is a species-wide notion. For most epidemiologists, the largest population group is the nation-state. But nations have been divided, and others have been unified. It might be simple to use national borders to assess the capabilities of individuals as the Human Development Report does presently. But that does not mean that intervention to improve capabilities will necessarily be most effective at the national level. Individual capabilities can be affected by the features of the family, community, nation-state, and global geographical region. There are many ways to group individuals. The type of health issue will likely identify which sphere provides the most robust explanation and required intervention.

388. As the CA exhibits a deep commitment to normative individualism, with a clear focus on the capabilities of individuals, there is much left unsaid about how capabilities of individuals work together. How is it possible to aggregate individual capabilities in order to see what the levels are, whether they are being affected by social policies, or how they have been influenced by any one factor? Moreover, individual health capabilities and collective action is only one area of group capabilities that needs to be explored. The argument for the CH derives its coherence from being a cluster of basic capabilities that are grounded in human dignity. Such a health capability would not be possible for a group without also identifying a cluster of basic group capabilities.

389. This chapter has aimed to introduce some of the group aspects of health concerns. In particular, it has tried to point to the difference between identifying the cause of incidence rates of a health constraint and the cause of individual impairment. The discussion tried to show that addressing incidence rates may involve recognizing the features of groups, and the possibly such a concept as group capability. The brief discussion also touched on aggregation and how the CA, particularly the argument for the CHCs and CH might handle an allocation decision that pits the capabilities of the many against the one.

390. Social determinants and health research demonstrate that health capabilities and functionings of individuals are really bound up in processes

that extend much beyond an individual's own volitional choices and agency. The argument for the CH reflects this by asserting the interdependence of CHCs as well as the interdependence of individuals. Yet, it is still uncertain as to whether inter-dependent individuals with shared ends constitute anything more than just individuals. Nussbaum writes, 'Living with and toward others, with both benevolence and justice, is part of the shared public conception of the person that all affirm for political purposes'. (Nussbaum, 2006: p 158) Though such a conception of shared ends and shared life produces obligations to everyone to ensure each others entitlements, different agents will have differing levels of obligations. The next chapter looks at what sort of obligations across national borders can be identified regarding the CH.

Chapter 8: CH and Cosmopolitan Justice

391. Unlike other arguments for social justice, the CA does not need to relax any assumptions, or make theoretical compromises that allow for the 'non-ideal' considerations of the international system in order to identify and evaluate the ethical claims of individuals outside of political borders. The CA expresses the view that a theory of justice has to be fully aware of the extra-societal ethical issues from the beginning. (Sen, 2005) When a theory of social justice begins with the individual human being as the primary moral agent, and in order to do justice to every human being, the theory has to recognize the important differences in the abilities of persons to pursue life plans arising from their internal features, conversion skills, and their external social and material conditions. The CA does not exclude considering the factors that influence material and social conditions from outside of national borders. Nor does the CA deny moral responsibilities in relation to one's actions influencing the social and material conditions affecting individuals outside of one's own national borders. However, while these two points may be uncontroversial, the CA stands apart from other leading social justice theories in identifying positive obligations to help realize capabilities of human beings outside of one's own national borders. The nature and scope of the obligations can vary according to the social basis of the causal pathways to the capabilities and functionings of foreigners. Nevertheless, the source of such moral obligations, for Nussbaum at least, arises out of the respect for the equal human dignity and moral worth of every human being.

392. **Section I: Social contracts and equal dignity**

393. The conception of CH as a species-wide entitlement is central to it being an extension of the CA. However, such a conception also has significant implications for any theory of social justice that intends to distribute health, or more accurately, the social basis of health. Chapter 1

argued that a conception of health is only defensible as a fully ethical idea that is applicable to every member of the human species. Thus, any theory of justice that seeks to guarantee the social basis of health, using this coherent idea of health, becomes a cosmopolitan theory of justice. Put in a more pithy way, when the CH is placed in the primary goods space of any theory of justice, it explodes it into a cosmopolitan theory. Furthermore, even if a liberal theory presupposes group membership prior to reasoning about fair terms of social cooperation, it would still be committed to respecting the equal dignity and moral worth of every human being outside the group. Thus, it would still be committed to ensuring the CH of foreigners as equal human dignity and CH are inter-twined concepts.

394. Recognizing that to be healthy is to have dignity worthy of a human being and yet, not recognizing any ethical obligations to respect the dignity of human beings outside political borders raises the problem of parochialism. What does it mean to show respect for the equal dignity of every human being when only the dignity of members of one's own society is actively realized? Or put in another way, how does group membership create immunity from the obligation to respect the equal dignity of every human being? If health was defined as a purely descriptive idea, or a socially relative concept, then indeed, there would be no obligation to distribute social bases of CH to outsiders for the same reasons used for those inside. But because health is not a purely objective idea, and though it may be a concept that is socially relative above a threshold, there is a central concept of health that is an ethical idea pertaining to the dignity of the human being. Respecting the equal dignity of every human being means ensuring a sufficient threshold of the CH that is commensurate with equal human dignity of those inside and outside of one's societal borders. Responsibilities of agents, however, will vary according to their relationship to the causes, consequences, and distribution of the CH achievements and failures.

395. Health defined as a free standing ethical concept that is derived from a conception of human dignity means that guaranteeing an entitlement to the social basis of health to only a sub-population of human beings requires justifying the unequal treatment of the remaining human beings. Social

contract theories, which were originally motivated to assert the equal moral status of human beings, are now put in a defensive position. Advocates of social contract theories must explain how a hypothetical agreement among human beings in the state of nature to construct a just society has always had an implicit understanding that it was a society made up of only a sub-group of individuals living in the state of nature. How does a theory separate out a sub-set of human beings to create an agreement for social cooperation? For all its universalist intentions, the talk of state of nature and man, or advocating the theoretical importance of using only a minimal conception of persons, social contract theories implicitly require that the theoretical contractors know that they are members of a particular society prior to determining the rules for that society.

396. The exclusion of children, women, or slaves for that matter, was thought to be justified because these individuals were considered to be unequal in the state of nature. Thus, it would not be mutually advantageous for everyone to cooperate. Their interests would be addressed derivatively at a secondary stage. It is quite a different kind of exclusion to exclude other rough equals. Unless that is, it is somehow argued that societies based on social contracts are themselves tiered according to different levels of rough equality of members. Furthermore, none of these theories address the possible impact on the terms of cooperation resulting from the knowledge of the existence of outsiders to the social contract. Outsiders only appear after the social contract is finalized, and are often seen as unjustly demanding the same treatment as individuals inside the social contract. Social contract theorists are faced with justifying how political borders or national citizenship should be allowed to determine life prospects.

397. One way of solving this conceptual problem is to understand species-wide characteristics as purely objective natural features with no moral implications. It would be much less of a problem to apply species-wide empirical concepts to a sub-group of human beings because any moral value given to the characteristics of the species would happen within the social contract. For example, every member of the human species requires water and oxygen to keep staying alive. But only within the social contract does the

descriptive requirement turn into an entitlement. The social contractors transform the descriptive requirement for water and oxygen into a moral entitlement for whatever reason they create amongst themselves. They do not have to worry about whether any human beings outside the social contract have any entitlements to water or oxygen. The worry about outsiders dissipates when such social contractors reason as if they were the only human beings in universe. Similarly, it is quite handy if the health of human beings can be laid out in a purely descriptive way, such as species-typical functionings. Then it can be argued that nothing about the descriptive facts attach to any moral obligations. It is simply what describes a healthy human being. Only within the social contract does a human being get an entitlement to the social basis of achieving such a state of health. That is, the value for species-typical functioning is created only within the social contract. And human beings outside the social contract who are not achieving that descriptive idea of health would, unfortunately, not have any claims on the members within the society for assistance.

398. Aside from the retreat from universalist intentions and rhetoric, another embarrassment for social contract theories is the attempt to use or apply species-wide moral concepts only in relation to a sub-group of the human species. This is most obvious when advocates of various social contract theories identify a set of 'human rights' after the rights and duties of members within the social contract are finalized. By human rights, of course, they mean the rights of humans outside of their own social contract. They do not talk of human rights of insider members. Some theorists, such as David Miller, do not identify the ethical basis for the human rights of outsider human beings but just that their own society has some sort of obligation to respect them. A few, such as Rawls, at least identify a second social contract among peoples, or groups of outsider human beings, as the source of human rights. But what is the justification used for those human rights aside from just being entitlements *sui generis*?

399. Advocates of social contracts may be able to identify obligations to protect the human rights of outsiders because their societies protect human rights within domestic institutions and those of outsiders equally. Thus, it can

be argued that they are respecting equal dignity of all human beings. It is simply the case that members of the social contract have more rights and obligations beyond just the minimum human rights that the society aims to protect for every human being everywhere. The conceptual problem arises, however, when social contract theories do not recognize any obligations to outsiders; when they do not build their social contract on top of equal treatment of all human beings, and yet exhort principles such as equal respect and concern for every human being.

400. Faced with theories that implicitly begin with a sub-group of human beings, it may be misdirected to point out such starting points as being incoherent; that it does not make sense how only a sub-group of human beings in the state of nature participate in a social contract when they are all considered to be equal in the state of nature prior to forming a social contract. It may be mis-directed because social contracts are hypothetical contracts, so it is not the procedural accuracy of what happens prior to establishing the social contract that matters. There would be no theoretical loss if a social contract theory explicitly said that the contractors belong to a certain society. The critique that matters is whether these social contract theories recognize any moral obligations across the entire human species, and moreover, if they allow the concerns arising with interactions with outsiders to inform the creation of the basic terms of social cooperation.

401. Relaxing the assumption of a single society leads further to a number of conceptual difficulties for the social contract theories. Just like theoretical inconsistencies or disrespect that arises from excluding individuals who are not rough equals or possess health functionings within the normal range, excluding the concerns of foreigners also results in similar effects. The explanation that theorizing about global justice is a situation of non-ideal theory which requires working with things as they are is a confounding one. The divergence of beliefs and practices among individuals does not result in pursuing non-ideal theory at the domestic level and thus, it should not at the global level. The notion that differences between societies are greater than differences among individuals within liberal societies would be difficult to sustain. Human beings wherever they are situated are entitled to equal

dignity. A theory that does not treat them with equal dignity is one that is disrespectful.

402. Whether referring to peoples, societies or nation-states, Rawls and others who base their conception of social justice on the social contract tradition conceive of individuals as having different rights and obligations within their societal borders versus outside. Taken to an extreme, this 'relational-statist' position—though no particular theory or individual advocates the extreme—contends that there are absolutely no moral rights and responsibilities to individuals or other entities outside one's own societal borders. (Sangiovanni, 2007) Justice does not exist in the space or relations between societies. At the other end of the spectrum, there is the extreme 'cosmopolitan' position—also which no theory or individual advocate—which asserts that there exist the same moral rights and responsibilities between individuals irrespective of societal borders. At this end of the spectrum, national borders simply have no moral significance. Though the background spectrum of the global justice debates has been laid out as the relational-statist versus the cosmopolitan positions, most of the well known arguments take a middle ground approach. The debate is largely about the theoretical structure that defends a position closer to one side or another of the spectrum. Rawls's conception of global justice for instance, is clearly on the relational side of the spectrum. He advocates a two-stage approach which begins with a domestic social contract between individuals, and then a global contract between societies. This second stage of the contract identifies some principles governing the interactions between societies including some basic duties to assist or intervene in other societies.

403. In following through a social-contract/relational-statist approach to health and justice across societies, such a perspective holds that it is just that an individual's life prospects that are relative to their society. While certain philosophers argue for the value of respecting a society's or community's social values and other shared features, some philosophers also seek to apply that same notion of respect or neutrality to the economic and material conditions of a society. Just as some philosophers may find it important that social justice claims related to an individual's life prospects are evaluated in

relation the opportunity range shaped by local moral values, other philosophers argue that an individual's life prospects should be relative to the opportunity range determined by the society's level of development and wealth. Economic development is seen as being socially relative similar to culture and shared sympathies.

404. One way of reaching this understanding is to see a society's level of development and wealth as being determined wholly by domestic factors such as the social and political culture of its citizens. The level of social and economic development is itself an expression of social values and thus, it is reasonable to evaluate the justness of social arrangements by comparing the achievements of individuals with what other individuals are able to achieve in that society. What this means with respect to health, if it is taken to its logical conclusion, is that an individual's health is compared to the health of other co-nationals. So, for example, if the average or 'normal' life expectancy in a society is twenty-five years, then any individual in that society would have claims to an opportunity range for twenty-five years of life. Alternatively, it could be argued that the individual has a claim to the social basis of reaching twenty-five years of life because achieving twenty-five year life span is thought to be a valuable thing for every member of that society. So living for twenty-five years could be valuable because it is instrumentally useful to equality of opportunity or because of its inherent value to a member of that society. In the former example, twenty-five years is the standard because that is the most common and represents normality. In the latter, twenty-five years could have been chosen because there is something valuable about having the same longevity as others, or about living for close to or exactly twenty-five years of life. However, it must be recognized that any of these diverse types of reasoning behind ensuring the claims to the social basis of achieving twenty-five years of life span could be fundamentally altered when it is made cognizant of the situation of another set of human beings who live for an average of seventy five years or more. Referring back to Kamm, if individuals value the experiential goods of life, then individuals will likely want more them. No matter how we may have identified the twenty-five year

mark, everything changes when it is learned that it is possible that human beings can live three times as long.

405. Irrespective of whether the level of economic and social development of a society reflects the social values and culture of that society, identifying entitlements based on what is commonly achieved in that particular society is unsettling. It makes profound sense that, because individuals living in rich countries continually push at the upper boundaries of longevity, individuals in such societies should be able to make claims for the social basis of the most commonly achieved life plans, or even states of well-being. Their likely fair share can be expected to include the upper bounds of human longevity because the most common values are at the upper end of the spectrum. There is no need to make any kind of argument in these societies that individuals have claims to achieve the upper bounds of human longevity because their most common life expectancy values are already there. And the notion of equality of opportunity meshes well with the statistically most commonly achieved values. The most common and most ideal achievements are merged. What sense would there be of ensuring the equality of opportunity to achieve a life span that is currently impossible, or a lifespan that is so low that it is virtually guaranteed for every individual without any social inputs.

406. However, were it the case that economic development resulted in dramatic decreases in human longevity for the entire population, then it would almost be guaranteed that the arguments for the equality of opportunity to achieve the most common values and to achieve the upper bound values would become distinctly separate. That is, if poverty were to protect and improve human longevity, it would likely be that individuals in rich countries would want to switch from having the equality of opportunity to achieve the most common values of longevity to equality of opportunity to achieve the global, upper bound values. They would mobilize social institutions to realize that principle. The argument for the equality of opportunity to achieve a fair share of the normal range of life prospects obfuscates the underlying value given to living a life span as long as possible. Examining life expectancy shows that the equality of opportunity to

achieve a normal range of life plans contains an implicit underlying value of achieving a share of the normal range at the maximum end of what is humanly possible. There is something of value in being able to live as long as possible for every human being. This means that making life prospects relative to each society denies what is shared across the human species. It should be the case that every human being would also give value to being maximally unimpaired throughout a life span that reaches for the upper bounds. Nevertheless, social-contractarians or 'nationalists' argue that it is what is most common or normal within a society that should be the standard to which entitlements are linked.

407. Daniels takes such a position in both his initial and newly revised argument. He provides the example that a person with dyslexia would not have any social justice claims for assistance from even domestic institutions in a society which is largely illiterate. If the most common range of life plans does not entail literacy, then dyslexia does not constrain achieving a fair share of that range. Daniels gives no value to the possibility that literacy is a good thing for a human being, irrespective of the literacy of the surrounding population. Nor does Daniels acknowledge that literacy is an inherently and instrumentally valuable functioning for a human being in the contemporary world. As societies are becoming more integrated, it seems reasonable to think that being literate will be instrumentally valuable in the future. Of course, given this argument about dyslexia, Daniels also has to contend that individuals will only have entitlements to the most common range of life expectancy values as well. It is quite ironic that domestically Daniels attempts to guarantee as expansive a range of life prospects as possible for individuals—given their corrected talents and motivations—by not guaranteeing their chosen share of the normal range of life plans only but also their fair share of the full range. Yet, internationally, he is willing to accept that the normal range of life plans in certain societies will be quite narrow, not because the individual chose them, or because of their talents and skills, but because of what is most common. In countries that experience acute and endemic mortality and impairments due to a variety of causes such as hunger or infectious disease epidemics, assessing the justice

claims of an individual according to the standard of the surrounding population appears morally suspect.

408. As an alternative to a largely or completely nationalist approach to social and global justice, the CA advocates two methods of reasoning to counteract the consequences of looking only within societies. One method of reasoning is to try to take the view of an 'impartial spectator' when evaluating the social arrangements of a society. While impartiality runs through the work of many philosophers, Sen advocates for Adam Smith's conception of impartiality as it seems to allow judgements of disinterested individuals from other societies into social decision making in the domestic context. (Sen, 2005) The second approach is to recognize a set of minimum social entitlements for every human being wherever they are living. On the one hand, the impartial observer would be able to look at a situation like that of Daniels's dyslexic individual in an illiterate society and be able to reason that just because everybody else is illiterate or indeed, dying at a young age, does not mean these facts determine the moral claims to a good life for this individual. In so far as an entire society can share a common sympathy or indeed a common hatred as the case may be, it does not mean that whatever is shared is necessarily morally legitimate. On the other hand, relegating individuals born in certain societies to a short and painful life because that is what others in that society experience is avoidable by protecting a minimum set of capabilities and functionings for every human being.

409. What Sen, Nussbaum, and other CA advocates argue is that within a particular society realizing social justice entails ensuring that individuals have equitable capabilities, particularly with respect to some basic capabilities. Across societies, where they are unable to ensure basic capabilities, the duties to assist in realizing such capabilities belong to a range of actors. The justification for the duties of each person to ensure the basic capabilities of others, according to Nussbaum's capability theory, lies in the recognition of equal dignity and the good of shared sociability. The identification of entitlements and duties of individuals by the CA irrespective of where they are in the global society places it on the cosmopolitan side of the global justice debates. However, capabilities advocates, though identifying fairly

stringent duties to assist individuals across borders, do not minimize the importance of sovereignty or national borders. The obligations to support the entitlements to basic capabilities of every human being should not be seen as being immediately overwhelming, to the point of undermining the identity or sovereignty of a nation. Indeed, Nussbaum argues that sovereignty must be respected from the perspective of the CA because it is an expression of individual freedom and self-determination in creating a state. As Nussbaum identifies, individuals may reasonably delegate their obligations to institutions for a range of good reasons including those of collective action problems, to fairly divide the duties, limited capacity, and to limit the responsibilities from erasing an individual's personal life. (Nussbaum, 2006: p 308)

410. This cosmopolitan approach to global justice has a number of implications to the CH argument. Foremost, all members of the human species are the primary agents of social justice irrespective of where they are in the world, and irrespective of their physical and mental state. A conception of global justice is built up from the individual and continually refers back to the capabilities of individuals. This is in contrast to the social contract and resourcist traditions. Rawls those who follow him such as Daniels, work on the starting assumptions that the individual moral agents of a social contract must have certain features. Rawls relies on Hume's analysis of the necessary 'circumstances of justice' for individuals to leave the state of nature to form a social contract for cooperation. Hume argued that individuals should be roughly equal in power and capacity and be living in conditions of moderate scarcity. Otherwise individuals could simply dominate one another for their own benefit and resources could be either too abundant to necessitate cooperation or too scarce to allow cooperation. In addition to these circumstances of justice, Rawls also assumes that the moral agents of his theory possess a sense of justice and capacity to reason—to form and pursue their own conception of the good. Beyond these two minimal characteristics, Nussbaum argues that Rawls also built in impartiality or objectivity into his moral agents through the use of the 'veil of ignorance'. Their ignorance of their prospective social position would mean that they would be impartial about the situation of every individual in the society.

411. Thus, Rawls's assumptions that his moral agents are reasonable and rational, roughly equal, and living in conditions of moderate scarcity have profound implications for the issue of health justice within and across societies. It has already been argued, though Rawls may have seen these assumptions to be necessary in order to pursue his theory, result in excluding concerns of certain individuals in the determination of basic principles of justice as well as treating them as second-class citizens. Their concerns, it is said, will be addressed later and derivatively after the basic structures are laid out in light of the features of other individuals. Rawls recognizes that in constructing his social contract device, he has had to exclude certain individuals such as future generations, individuals that lack rationality due to severe impairments, foreigners, and so forth. Indeed, Daniels's effort to extend Rawlsian justice to health issues is presented as 'relaxing' the assumption that all the contracting agents are normally functioning over the entire life course. Daniels considers health justice to be concerned about what happens to individuals when their health functioning goes below normal over the life course. Daniels has had to accept, perhaps seen no problem until recently, that his theory of health viewed the health concerns of individuals with severe impairments as being outside justice; akin to health concerns of individuals outside of national borders or those living in extreme scarcity. In those situations, it is argued that beneficence and compassion apply, but not a framework of justice.

412. While Rawls and Daniels may see great benefit in pursuing a theoretical structure with such assumptions, there are a number of consequences that undermine the coherence of their subsequent analysis as well as the integrity of the whole project. Nussbaum makes a very powerful and clear argument that Rawls's theory, despite being the best exemplar of the social contract tradition, still does not treat all human beings with equal dignity and respect. By excluding individuals with impaired mental and physical abilities from being primary moral agents and consequently, not treating them as equal citizens, such theorizing violates the equal dignity of all human beings, and instrumentally undermines a more just society.

413. Rawls excludes health issues, and thereby, individuals with severe physical and mental impairments from the Original Position, because they would violate his conditions that make social contract possible. Following Hume's reasoning that for individuals to leave the state of nature in order to form a mutually beneficial cooperative venture individuals would have to be roughly equal in powers and there must be an environment of moderate scarcity. Rawls adds some further stringent conditions in order for his social contract device to function. He stipulates that individuals need to be free, independent, and rational. Thus, individuals cannot be dependent on others or be concerned with the welfare of others. Individuals must also have the capacities to rationally conceive their life plans and pursue such plans. Individuals with severe physical and mental impairments would violate these conditions. But most importantly, these conditions or stipulations are meant to outline that individuals form a cooperative venture in which every individual has something productive to contribute to the venture, and that it is mutually advantageous to everyone. If an individual is not sufficiently or wholly capable of contributing to the cooperative venture then they pose a theoretical problem. Why would the others who are only self-interested agree to include a 'dead-weight' in their venture? Rawls reasons that they would not, just as did Locke and others. Thus, Rawls leaves out individuals who are not within the 'normal' range of physical and mental functioning. What this essentially means is that those individuals, in so far as they are capable of participating in political discussions and making choices are not included in the choosing of basic political principles. Moreover, they are not allowed to inform the kinds of primary goods that individuals would want. This is so because the individual interests represented by the parties can be only that of independent individuals. And they are working under the assumption that individuals will be fully functioning normally throughout their life course. Even though they are supposed to be reasonable, they would not be able to identify as primary goods such things as the social bases for health, care, and other things and conditions that impaired individuals would find valuable in light of their extra needs and constraints on conversion skills.

414. While the work of Daniels with regard to health issues and Rawls's theory is noteworthy, it is important to get a true picture of what he has and has not done. That is, Daniels has not addressed the concerns of individuals who are severely physically or mentally impaired. Instead, he has taken the perspective of the contractors and relaxed the assumption about their health over the life course. So the concerns of individuals left out of the formation of basic principles and identification of primary goods are not addressed by satisfying the health concerns of a different group of individuals who periodically or permanently get impaired over the life course. Admittedly the concerns of the two groups overlap. For example, an individual whose legs are paralyzed from birth and someone whose leg breaks whilst skiing would share a similar interest in having entrance ramps and mechanized doors to buildings. But what Daniels tried in the beginning was simply to argue that individuals who see the possibility of impairments in their lives would want healthcare put on the primary goods list. And surely, individuals who are severely impaired, if they were involved in the social contract rule making would also want healthcare on the list of primary goods. But, it is likely that they would want other things as well.

415. As Nussbaum argues, the social basis of care would be prominent on the list. Individuals would find it valuable for society to ensure that there are individuals to provide care for them when they needed it, and that the carers are sufficiently supported in their roles. But as important as care is, severely impaired individuals would want to ensure that the social basis of health functionings were on the list, not just healthcare. The severely impaired and their carers understand first hand, more than the 'normally functioning', that protecting and maintaining physical and mental functioning is not just a question of access to healthcare but an active management of a process involving the social environment, individual choices, genetic endowment, and sheer luck.

416. In the revised argument, Daniels argues that individuals who foresee the possibility of impairments in their lives would ensure that the 'social determinants of health' would be distributed fairly, which in essence, encompasses the entire social basis of health. But Daniels does not directly

put these social bases on the list. Instead, he argues that the contractors would build healthcare institutions as basic social institutions which help realize the primary good of equality of opportunity. And interestingly, the non-healthcare, social determinants of health are 'serendipitously' already distributed fairly by the two principles of justice. But we should not lose sight of the fact that the severely impaired are still not treated equally as citizens under Daniels's scheme. And, though more of their health concerns may be addressed through this broader distribution of the social determinants, there is no guarantee that all of their concerns are addressed or in the priority with which they would have organized them if they were involved from the beginning.

417. In an ironic result, though Daniels advocates for the importance of justice in health, he excludes the people who in fact need such health justice the most. The severely impaired individuals within his developed democratic society are likely to need more social assistance in regard to their health issues, as are the majority of the world's population living in deprivation which produces preventable morbidity and mortality. Daniels argues, as other individuals do when confronted with the shortcomings of a theory of justice, that the fact that Rawls's theory cannot address the interests of these individuals means their interests are not a matter of justice. The scope of justice simply does not extend to cover their interests. Instead, he argues that the interests of the severely impaired are a matter for the beneficence and compassion of society, while the health concerns and wider needs of individuals in poor countries is a challenge for future generations of philosophers to figure out how to address.

418. There is a tension in Daniels' theory with respect to how he links a supposedly factual scientific concept of species-normal functionings and the limited duties in regard to the health capability of those outside the national borders. The full knowledge of excluding other members of the human species from the theorizing must surely have implications. David Miller has a similar issue in his defence of the nation state. (Miller, 2002; Miller, 2005) He argues that members of a society can indeed be partial to compatriots because they share common sympathies. But Miller also argues that

individuals in this society also have a moral duty to ensure that any other human being in the world has their basic human rights. Moreover, he argues that where the state or social institutions cannot ensure the basic human rights of individuals within their borders, they are not legitimate governments. That is, individuals whose basic human rights are not met are living in a state of nature. But it is unclear Miller reconciles that on the one hand, there are a huge number of individuals living in metaphorical state of nature, and on the other hand, the subset of humans beings he belongs to decided to construct their own separate cooperative agreement. In both Daniels and Miller, one can see difficulties that arise in the social contract tradition when theorizing about global justice tries to span both ideal theory and the realism of international relations.

419. **Section II : Two problems**

420. There are at least two areas that need greater exploration in the area of health and global/social justice. The first area concerns the reality that determinants of the health of individuals and populations are trans-national. New and resurgent infectious diseases beginning with the HIV/AIDS epidemic in the 1980s followed by SARS, avian flu, foot and mouth disease, multi-drug-resistant tuberculosis and others have brought to the forefront how the increasing interconnectedness of societies also makes them more vulnerable to biological threats to life. For a multitude of man-made reasons, the rate at which new and resurgent infectious diseases affecting human populations has been steadily increasing over the past three decades. Indeed, such vulnerability to biological threats through interconnectedness was thoroughly apparent in the spread of the bubonic plague that started in China before entering Europe in the 14th century.

421. Though the history of infectious diseases and human populations show the consequences of both ever-growing settled populations and interactions between such settled communities, it would be hard to ignore the fact that the determinants of health across trans-national borders are not just infectious biological organisms. Social and material factors also move across borders. The social and economic relationships between societies have previously had both negative and positive impact on the health of individuals

and populations. Sometimes the critics of contemporary globalization or colonialism underplay the benefits to health of interconnectedness. Indeed, negative examples are aplenty. For example, the European settlers in the American colonies in some cases unknowingly, and in some cases purposefully altered the social and material conditions which resulted in the extinction of various native populations. That is, aside from killing them simply using guns, their continual annexation of land and denial of access to traditional ways of sustenance resulted in dramatic increases in mortality and impairments. At the same time, the wealth from trade as well as knowledge from other societies has improved the health and life expectancy of many European countries. Also, increasing forms and speed of communication has allowed citizens of developing countries to accrue health benefits just from information such as that on nutrition, sanitation, or biological threats. The health benefits and burdens resulting from the longstanding relationships between human communities are undeniable even if there is disagreement over which has been greater for a given society.

422. The historical evidence of the positive and negative effects of transnational interactions on the health of individuals and populations militates against the idea that there is no global society or that human societies are mutually independent entities. Though there may well be significant disagreements on when the processes of interconnectedness between societies really became established in which parts of the world, there can be little doubt that contemporary societies are and will become even more inter-related. If nothing else, the rapid spread across national borders of infectious diseases through human interaction evidences the shared vulnerabilities arising from being human beings, and the necessity to coordinate a response across the human community to mitigate the vulnerability.

423. Alternatively, global society can be made up from the shared vulnerability of human beings to biological threats that arise from interactions, and the necessity to coordinate an appropriate response. From there, it becomes easier to see that it is not only infectious biological agents but social and material determinants that also require regulating. As a result of the ever more increasing interdependence of human societies across the

world, addressing the shared vulnerabilities resulting from the common features of human beings can be the source of cooperation across societies in contrast to establishing mutual deterrence principles against aggression from other societies. The mutual recognition of the vulnerabilities to premature death and impairments as a result of human interactions within and across societies forms the basis of recognizing a global society of individual human beings, rather than one of national states.

424. The processes of trans-national interactions which transform material and social conditions of societies that then influence the mortality and impairment burden of individuals and populations are easily recognizable in many contemporary societies. There are many who argue that increased economic development through greater participation in the global economy will directly result in the improved longevity and quality of life of populations. Such a causal relationship may sometimes be true depending on the choice of economic policies, as evidenced by the varied experiences of China, India, Japan and other South-East Asian countries. The opposite can also be the case as evidenced by the rise in preventable mortality and impairments in Russia after economic liberalization programs. In light of both the vulnerabilities engendered by societal interconnectedness as well as the possible benefits, there are many ethical issues that arise in regard to the terms of trans-societal social cooperation. In regard to health, there is a pressing concern to identify the terms of trans-national interactions in order to mitigate the biological as well as the social determinants which undermine the CH of individuals and populations of all societies. If the equality of opportunity to achieve a fair share of life plans is a basic entitlement in a particular society, then ensuring such an entitlement would require engaging with the broad spectrum of agents which influence determinants originating from outside the national borders.

425. The second area of concern is the question of what claims can individuals make to agents outside of their national borders when the basic social institutions within are either purposefully constraining their CH, lack the resources or knowledge to provide the social basis of the capability, or indeed, the basic social institutions are only partially existent if at all. In times

of acute crisis that may overwhelm the capacity of a society's institutions to adequately respond, agents outside the national borders may be motivated by beneficence to provide assistance in the form of material goods and other technological resources. But what about the constraints on the health capability of individuals and populations during non-emergencies? Can claims to support health capability still only appeal to beneficence?

426. It may seem at first that in countries with the highest magnitude of mortality and impairments that what is needed to improve the health capability of individuals is material resources. Improved nutrition, adequate sanitation, better housing conditions, vaccinations, education and so forth would dramatically relieve the constraints on the capability of individuals to be healthy. But a more thorough examination of even the most basic causal pathways to health in the poorest of countries would show that the causal pathway includes both material goods and social conditions. Even what seems to be a purely resource issue such as the improving rates of infant mortality through the provision of vaccinations requires addressing the social conditions in which mothers are situated. The availability of the vaccine in a particular locale has to be matched with the social conditions which allow mothers to be aware of its availability and efficacy as well as the freedom to move to physically access the resource for their infant. Indeed, resources such as vaccinations suggest that improving the CH of individuals could improve significantly simply with the provision of material goods at a certain point in time. The 'silver bullet' approach which is focused on providing goods to alleviate immediate threats to life or provide life long immunity can have significant impact but only with respect to those specific threats. Ensuring that an individual has the capability to live a normal length of life and avoid impairments requires a supportive social and material environment over the life course. In light of this, what moral claims can an individual make to agents outside of their national borders when their health capability is being maliciously constrained by domestic agents, or their society's institutions are simply incapable of adequately mitigating the various constraints that are caused by genetic endowment, material and social conditions, and luck?

427. **Section III: What 'we' owe the global poor**

428. It should be clear that the present discussion has framed the issue of health and global justice from the perspective of individuals no matter where they are situated in the world. Global justice debates often tend to be concerned with the right foreign policy of wealthy countries rather than about identifying an ethical global structure for all human beings. It is unfortunate that current global justice debates generally and in specific relation to health concerns have largely been framed as attempting to determine 'what do we owe to those distant needy'. The assumptions underlying such a starting position are numerous and blinker the discussion from many important considerations. Such a framework which conflates global justice as being largely about distributive justice and furthermore, as being about transferring goods from (we) richer to poorer countries is simply too rudimentary. This is not to say that identifying ethical principles for foreign policy is not important; it is crucially important. Yet, these discussions on the right foreign policy of rich countries towards the 'global needy' seem to be of the same tenor as the discussions on (domestic) social justice when it was centrally focused on whether morality required the transfer of material resources from the wealthy to the poor. The various arguments for the global transfer of resources also seem to be uninformed by the longstanding debates over at least that past three decades in development ethics. Recent philosophical arguments for a global dividend, health tax, or entitlements to basic needs under the heading of global justice rarely reflect or integrate the arguments already put forward and analysed in the development economics and development ethics literature.

429. In addition, the 'what do we owe them' perspective does a great disservice both to the individuals in the 'them' category and to basic liberal principles. It would hardly seem acceptable in discussions of a liberal conception of domestic justice if the distribution of benefits and burdens were largely discussed in relation to groups or classes of people. The criteria of justice are assessed in relation to the individual as the primary moral agent. Liberal ethical reasoning takes the perspective of the individual, and seeks to identify individual benefits and burdens and secondarily, overall social considerations. Global justice debates so far take the perspective of rich

individuals or societies and seek to identify the moral obligations they have, if any, to improve the conditions of a group of poor individuals within other countries, or the global poor en masse. In contrast, the concern for the worst off in (domestic) social justice theories is discussed in terms of individuals, not as a class.

430. There is a loss when reasoning loses sight of the liberal principle of each person as an end. Even if the threat from utilitarian aggregation has been put aside post-Rawls, the global justice debates currently use aggregate analysis that looks far too similar to utilitarian analysis. The most prominent example can be seen in Charles Jones's argument for achieving global justice which entails protecting certain basic human rights. (Jones, 1999) He argues that if there are any basic human rights, then there are basic rights to food, clothing, education, and so forth. But his argument for ensuring such rights is that it will improve overall, global welfare. Despite the use of the rhetoric of basic human rights, it is rule-utilitarianism par excellence.

431. A contrasting and rare example of global and aggregate analysis that is cognizant of each person as an end is the tenor of Paul Farmer's analysis of global justice. It is pervasively informed by the memories of first-hand experience providing medical assistance and personally engaging with distinct individuals in Haiti, other developing countries as well as in poor sections of the United States. The arguments for addressing the global structural violence inflicted on the 'global poor' are grounded in the knowledge of explicit causal pathways to individual well-being in particular poor countries that can legitimately be extrapolated to the situations of other groups of individuals in other societies. Individual human beings are the primary agents of justice and must be treated as distinct individuals with their own ends.

432. Philosophers who start with peoples and nations as primary agents of global justice or who carelessly slip into group analysis when evaluating global inequalities compromise the basic starting principle of the distinctness of human beings. Nussbaum, for example, criticizes Rawls for his willingness or toleration of the violence against women by allowing for

'decent peoples' to be parts of his global social contract rather than only liberal societies that treat every human being with equal respect. The emphasis on the necessity to be 'realistic' in the interactions with other societies and to be tolerant of the violation of individual dignity or similarly, be satisfied with improving aggregate indicators of well-being in other societies undermines the integrity of the arguments used to justify domestic theories of justice.

Conclusion

Conclusion

433. This dissertation presented an argument for a moral entitlement to a capability to be healthy in three parts. In Part One, Chapter 1 presented an argument for a fully evaluative conception of health as a capability to achieve a cluster of basic capabilities and functionings that are commensurate with equal human dignity. Chapter 2 presented a unified theory of causation and distribution of health that integrated the class biomedical model of disease with the entitlement analysis of malnutrition. This integration produced a model of causation and distribution of the CH which encompassed the causal components of biological features, conversion skills, exposures to material goods, and social conditions.

434. Part Two presented the normative argument for the CH. Chapter 3 briefly summarized the CA and Chapter 4 presented the normative argument for the CH. Part Three focused on defending capabilities against alternative theories. Chapter 6 reviewed how health claims were addressed by welfarist and resourcist approaches. Chapter 6 reviewed the comments of Pogge and Daniels's recently revised Rawlsian approach to health and social justice. Chapters 7 and 8 briefly considered the notion of group capabilities in light of the 'population health' concept in public health and the implications for global justice theory that result from using a concept of health as a species-wide capability.

435. **Some areas for future research**

436. The introduction discussed the space and time constraints on the present dissertation, and the need to put various aspects of the argument aside. While those areas need to be pursued further in future research and integrated into the present argument, there are several points that CA advocates might now consider in light of the CH argument.

437. Both Nussbaum and Sen give a significant role to public deliberation. Such recourse to public deliberation is not a way to resolve difficult dilemmas by deferring it to a public vote. Public reasoning is seen as central to the process of justice. Indeed, Nussbaum clearly sees herself as a participant in public deliberation, and advocates for a list of central human capabilities. She is confident that participating in deliberations across different societies is possible, and that her list of central human capabilities can achieve overlapping consensus across societies. For Sen, public deliberation is also important through and through. Public deliberation is seen as the appropriate method or vehicle to identify what capabilities to consider as being basic entitlements; what the thresholds should be; and how to evaluate consequences and distribution patterns. However, aside from simply referring to public deliberation, there is no clear sense in the CA of what the structure or methodology of public reasoning would look like. Without a clearer sense of public deliberation, the CA runs the risk of becoming another resource theory that thinks of individuals as recipients of capabilities rather than as active agents. This dissertation has highlighted the importance of autonomy and agency in the CH. To be able to live a normal life length of life span and protect and promote their basic capabilities and functionings individuals must be knowledgeable about and engaged with the varied causes and consequence of their CH over the life course. The CA conception of public deliberation, particularly as it relates to the basic capabilities in the CH, needs to be examined further. Such consideration must be connected to a greater appreciation of the self-realization of capabilities.

438. This dissertation has briefly discussed the health aspects of groups, making it plausible to think of group capabilities. Evaluating the dynamics of health at the individual and population level show that population health is not simply a summation of individual health, nor is group health divisible into individual level health. The differences between causes of incidence rates of impairments and the causes of individual cases of impairments show that distinct dynamics occur at various levels from the individual, neighbourhood, city, nation, and beyond. While it is clear that the CA is centrally focused on

individuals having sufficient or equitable basic capabilities, there needs to be further exploration of group capabilities. It simply cannot be something that is thought to be nonsensical, or dismissed as being too close to the utilitarian pursuit of aggregate welfare.

439. The CH argument expands the scope of the social bases of health to include a broad range of causal factors. Yet, expanding the scope to encompass the diverse range of causal components of the CH raises the question of coordination. Whether for CH, or any other capability, ensuring the social bases of a capability entails coordinating social support across a variety of institutions. This raises the question of how one organizes in theory and in practice the protection and promotion of basic capabilities such as the CH. If capabilities are multi-dimensional, then is it too simplistic to continue to imagine that one institution of social sector will focus on each capability. It is clearly not the case the CH will be protected, promoted, and restored only through the actions of healthcare institutions. If it is coherent to think of protecting, promoting and restoring capabilities as requiring the actions of diverse social institutions and other agents with an even more diverse range of responsibilities in relation to the causes, consequences, and distribution patterns of the CH, then it is hard to imagine that healthcare institutions will still be the central place for ensuring the CH. And if the causal model of the CH can be applied to any capability, then the question of coordination becomes central to the implementation of any capability. CA advocates need to consider more closely how basic social institutions could coordinate social responses in relation to the support of human capabilities.

440. It has been argued here that a person's ability to live for a normal length of life span cannot be neatly separated from physical and psychological functioning. Death is the ultimate constraint on the somatic and psychological capabilities and functionings of an individual. It follows from this that a 'right to life' cannot be separate from a 'right to health'. The CH is conceived as a meta-capability with death as the ultimate constraint. Such an argument for the CH should motivate advocates of the CA to examine the coherence of concepts such as health, life span, disease, illness, and other related concepts. Indeed, the CA advocates should

consider jettisoning the idea of disease altogether and focus more on the capability to be healthy and impairment concepts.

441. The CA must examine more closely the determinants of mortality and impairments, and not just rely on their prevalence statistics. Indeed, extant statistics on mortality and impairments evidence a meaningful picture of the gross inequalities in the quality of life of individuals within and across most countries. Nevertheless, relying on prevalence statistics can be vulnerable to criticisms of using incoherent underlying conceptions of health, and theories of health causation and distribution. It is necessary to go beyond the prevalence statistics in order to thoroughly identify the full scope of claims that may arise from the causal components of personal features, conversion skills, exposures to material goods, and social conditions. The entitlement theory has provided a useful framework to examine the causation and distribution of a specific health functioning, and its applicability to other health issues is worth exploring further independently or through the CH causal model presented here.

442. The CA must quickly begin to integrate research on social determinants of impairments and mortality. The research findings are too robust to ignore, and also support many of the central ideas in the CA. Advocates of the CA could significantly contribute to social determinants research by helping to develop a unified theory of health causation and distribution that coherently integrates the breadth of causal components. Furthermore, CA advocates contribute by fleshing out the ideas of agency, opportunity, and dignity used in the research.

443. While this dissertation has wholly side-stepped these issues, the CA needs to provide more reasoning on the role of personal responsibility and luck in relation to capabilities. Of particular interest to the present argument for the CH is how to relate the notion of luck to the diverse causal components. Choices, responsibility and luck work through these four components, but it is unclear how to integrate them into such a model.

444. CA advocates need to be able to show how to allocate social resources across the capabilities for a given individual and groups of individuals. The discussion on group capabilities highlighted the inter-related

ideas of aggregating features across individuals and addressing a feature of the group. Aiming for efficiency in supporting individual capabilities may require using aggregate analysis. But it is unclear whether such aggregation is also implicitly recognizing a feature of the group independently of the specific individuals that belong to it at a given time. The commitment to normative individualism in the CA is too important to not have clear reasoning in this area.

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