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Private Choices, Public Issues.

The Ethics of Health Policy in the Face of Diet Related Diseases.

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Table of contents

<i>Introduction. Problem, tool, and plan of the work</i> -----	i
Public health and moral theory -----	vii
Moral theory, politics and democracy -----	xii
Normative reasoning and the sciences -----	xvi
Plan of the work -----	xviii
<i>1. Diet related diseases. Natural and social history of dietary diseases</i> -----	1
1.1 The natural history of diet related disease -----	3
1.1.1 Food and well being: the dynamic and consequences of nutritional transitions -----	4
1.1.2 The epidemiology of diet related diseases -----	7
1.1.3 The biology of obesity and diet related diseases -----	9
1.1.4 Protective foods-----	16
1.2 The social history of diet related diseases -----	18
1.2.1 Social inequalities in health -----	18
1.2.2 Effects on economic activity and costs -----	20
1.3 Policy response: what has been done? -----	23
1.3.1 Public health policies and food -----	23
2.3.2 Health systems reforms and diet related diseases -----	24
<i>2. Paternalism. When choice is bad</i> -----	27
2.1 The varieties of antipaternalism and public health policy -----	30
2.1.1 The definition of paternalism and its relevance in the case of food policy -----	31
2.1.2 What is a paternalist policy? -----	37
2.1.3 Two kinds of liberal antipaternalism -----	43

2.1.4 Stewardship, libertarian paternalism, and non liberal public health -----	49
2.2 Against liberty based antipaternalism in public health -----	60
2.2.1 Antipaternalist deontology explained -----	60
2.2.2 Interference is endemic and unavoidable -----	63
2.2.3 The ideology of good deliberators -----	65
2.2.4 Liberties that are not worth protecting -----	67
2.3 The Very Idea of Bad Food Choices -----	72
2.3.1 Bad choices: thin vs. thick theories of well being -----	72
2.3.2 Bad food choices -----	78
2.3.4 One size fits all? -----	90
2.4 Appendix: indirect paternalism and parental autonomy -----	94
2.5 When we should worry about paternalism in public health -----	97
3. <i>Responsibility for Personal Health. Between justice and efficiency</i> -----	99
3.1 Is there a duty to be productive? -----	103
3.1.1 The goods of productivity -----	103
3.1.2 Unlashing human potentials vs. conscription -----	104
3.1.3 The burden of care and lifetime incomes -----	107
3.1.4 There is no duty to be as productive as possible -----	109
3.2 The cost of diseases and the varieties of appeals to personal responsibility for health -----	111
3.2.1 What (if anything) can justify cutting in expenses -----	112
3.2.2 Responsibility and justice: desert based theories -----	115
3.2.3 Responsibility and justice: luck-egalitarianism -----	119
3.2.3a Luck, choice and scarce vital resources -----	121
3.2.3b The anti-egalitarianism of luck-egalitarianism -----	122
3.2.4 Efficiency: moral hazard and negative externalities -----	134

3.2.5 Appendix: minor arguments for personal responsibility for health -----	139
<i>4. Promoting Equality in Public Health. The Moral Significance of Social Health Inequalities --</i>	<i>143</i>
4.1 The circumstances of socio-economic inequalities -----	148
4.1.1 From the rise of socio-economic inequalities to the new egalitarianism -----	148
4.1.2 The distribution of health -----	153
4.2 The moral significance of health inequalities: previous proposals -----	156
4.2.1 Humanitarian values and the sufficientarian critics of egalitarianism -----	157
4.2.2 Norman Daniels and the right to health -----	159
4.3 Neoliberal egalitarianism, equality of opportunity and health -----	163
4.3.1 What is equality of opportunity? -----	165
4.3.2 The health benefits of economic egalitarianism -----	168
4.3.3 Equality of opportunity for health requires economic equality -----	169
4.4 Conclusion: the meaning of social health inequalities for egalitarians -----	170
<i>5. Conclusion. The Ethics of Public Health in the Face of Diet Related Diseases -----</i>	<i>173</i>
<i>References -----</i>	<i>179</i>

Abstract

The epidemic of diet related disease is a fundamental fact of epidemiology that our societies are increasingly facing. It calls for policy responses and amendments of our systems of health care. These actions and reforms intersect several *loci* of moral and political disagreement in the public sphere: the acceptability of public paternalism, the appropriate consideration of personal responsibility in health care and the moral and political significance of social health inequalities. I offer a treatment of these three broad normative issues in order to inform discussions about appropriate responses to diet related diseases. (1) I argue that antipaternalism is overstated if not understood in welfarist terms: within the latter framework, evidence for poor capability in dietary choices is a sound reason for intervention. (2) I distinguish distributive and efficiency concerns regarding personal responsibility for health, arguing that there is no defensible conception of the former. (3) I dismiss efforts to understand the moral importance of social health inequalities in terms of health entitlements and reject investment-like approaches to inequalities framed in terms of “equality of opportunity”: the fight against health inequalities is vivified by a renewed interest in the social goods attached to robust socio-economic egalitarianism. Together, these three theses lead away from policies focused on individuals, their responsibility and their productive importance for society and support both public health interventions on the environment where people live and continuous defense of traditional unconditional health care provision.

Abstract (italiano)

Le politiche sanitarie volte a fronteggiare le malattie legate alle scelte alimentari costituiscono un punto d'osservazione privilegiato per l'analisi di alcuni aspetti cruciali della moralità politica riguardanti la legittimità del paternalismo, la rilevanza distributiva della responsabilità personale e l'importanza morale delle diseguaglianze socio-economiche negli esiti di salute. In questo lavoro si propone un trattamento di tali temi con lo scopo di informare sia il dibattito teorico-morale sia la discussione pubblica. In particolare, si difendono le seguenti tesi. (1) L'importanza dei principi antipaternalisti basati sulla protezione della sovranità individuale deve essere ridimensionata nel caso della sanità preventiva. Il sospetto liberale verso il paternalismo può essere ricostruito in senso welfarista e può giustificare un approccio interventista in presenza di dati comportamentali e neurofisiologici che suggeriscano l'inadeguatezza delle scelte alimentari. (2) L'appello alla responsabilità personale in sanità si declina in una versione economica e in una versione distributiva: la prima indica possibili inefficienze dovute ad eventuali esternalità sociali delle scelte personali pericolose, la seconda attribuisce valore morale alla distinzione scelte-circostanze a fini distributivi. Nel caso sanitario, non esistono ricostruzioni difendibili della seconda versione e ci sono ragioni empiriche per ritenere che la prima versione non sia pertinente. (3) Mentre la riflessione sulle diseguaglianze sanitarie è stata per lo più condotta a partire da teorie dei diritti personali o sulla base del principio di eguali opportunità (di solito giustificato sulla base di teorie del capitale umano), le diseguaglianze socio-economiche nella salute invitano a riconsiderare l'eguaglianza economica quale orizzonte auspicabile delle politiche pubbliche, illustrandone gli effetti benefici e fornendo a tali politiche un importante bersaglio. Nel complesso, le tre tesi qui difese mal si adattano agli approcci che tematizzano la responsabilità personale, la struttura degli incentivi che gli individui incontrano e il loro ruolo produttivo per la società. Si invoca invece una nuova attenzione alle diseguaglianze nelle risorse individuali e negli ambienti in cui le persone vivono, insieme al continuo supporto alle forniture sanitarie universali e non condizionali.

Introduction.

Problems, Tools and Plan of the Work

This thesis focuses on the policy responses to the epidemic of diet related diseases, including public policies that aim at countervailing the epidemic and the calibrations of health systems motivated by the spread of these conditions¹. There are indeed two distinct branches of public measures that are being proposed and implemented as a consequence of preventable diseases that are associated with diets. On the one hand, there are public health measures targeting unhealthy behaviors and their consequences. These are campaigns that can be mounted at various levels by different kinds of administrative agencies (e.g. municipalities, public health departments, private actors). On the other hand, existing arrangements regarding health systems (e.g. reimbursement schemas) might be adapted in the light of the new epidemiological circumstances. This requires large-scale organizational changes, more often at national level. Both policy issues are addressed here.

Chronic diseases due to nutritional choices claim a high death toll yearly in most countries, push people into conditions that worsen their quality of life and increase the employment of resources in health and social systems, resources that could be used fruitfully otherwise for morally recommendable purposes. These might seem important reasons as such to mount a policy response against the epidemic and apparently the only issue that is worth exploring for policy analysts should be how to act *effectively*. This is not the approach taken here.

Both means and ends of public health policy intersect several *loci* of normative disagreement - *loci* that are often explicitly explored in heated public debates - regarding what public authorities and other actors *should* and *cannot* do. All these preliminary questions regarding the moral and political philosophy of health policy fall within the scope of this thesis. I aim at offering a reasoned analysis of different approaches to these problems for the sake of public deliberation on public health and nutritional choices.

Shall the state interfere with the personal choices of its citizens if they are clearly dangerous for them and only for them? Shall health systems provide equal treatment to everyone who falls sick irrespectively of whether his condition is a result of reckless behaviors or bad luck? Is there a moral duty toward other citizens to maintain a prudent conduct that will not result in increased health costs? If so, what shall we do with non-compliers? What shall we think about the fact that bad

¹ For the notion of “calibration” of welfare state regimes in the face of evolving sociological contexts, see Ferrera (2013).

choices and most diseases are more common among the socio-economically disadvantaged in our societies? Are universal welfare regimes sustainable and morally justified if many health risks depend on individual choices? Which is the moral *rationale* of the fight against socio-economic inequalities in health-behaviors? Shall we provide everybody with equal chances to be healthy, with equal health or none of these two? Is social justice a relevant prescriptive notion when reasoning about public health?

While the purpose of this thesis is to provide reasoned answers to these questions, the deliverable will not be an analysis of whether or not this or that particular food policy is “ethical”, legitimate or justifiable. Rather, I will discuss moral and political principles that might guide the design and implementation of health policy for the fight of diet related diseases. Schmidt (2008) has distinguished three layers of prescriptive analysis that fuel the processes of political decision making: the layer of political theory, the layer of political programming (e.g. government “white papers”, think-tank reports, etc.) and the layer of detailed policy programming (e.g. technical files from departments, drafts of laws, etc.)². Among the three layers, this work intends to contribute to the first and thus detailed discussions of particular pieces of policies are beyond its scope and will not be pursued, if not for illustrative purposes. There are of course downward implications regarding applied policy making, but their content will depend a lot on the specificity of contexts and must be discussed case by case.

I anticipate here the main results in the form of three theses that I will defend. They correspond to three traditional thematic sections of public health ethics³: the acceptability of state paternalism, the place of personal responsibility for health in distributive decisions and the moral significance of social health inequalities. The three theses can be briefly summarized as follows.

(1) There is a wider space for paternalistic interventions (i.e. beneficent interference with free and autonomous choices) than it is usually thought, since evidence is accumulating as for the extent to which human food choices are often *bad*. When it is justified from these premises, paternalism does not violate the main liberal concerns against paternalism, at least if the latter are understood as

² Schmidt’s theoretical framework in political science is a form of institutionalism that focuses on the role of ideas and discursive actors in institutional changes. See *infra* in the introduction the section dedicated to moral theory and democracy for a lengthier discussion of the topic.

³ See *infra* in the introduction the section dedicated to moral theory.

concerns about welfare and nothing else and put in their place in the evaluation of benefits and costs. I provide detailed theoretical argument for this last proposition and review the *empirical* literature on food choices and their limitations, explaining how this material can be employed in prescriptive deliberation.

(2) The drive toward responsabilization of individuals that is widespread in contemporary health systems is largely unwarranted if conducted on the basis of duties and distributive theories that are sensitive to personal responsibility, efforts and investments. The very same process of responsabilization could be instead justified on the bases of considerations of efficiency (i.e. effective employment of resources), which are at the bases of “activating” *supply-side*⁴ approaches to social policy. Alas, the latter do not seem to apply to the case of food choices. This illustrates a more general point about responsabilization: costs and benefits calculus rather than distributive theories should underpin in each case the implementation of responsibility-oriented reforms.

(3) Social health inequalities in health behaviors suggest paying attention to substantial socio-economic equality as candidate ideal endpoint of public policy, including health policy. I criticize previous moral analyses of health inequalities, contending that the notions of ‘health *inequities*’ based on personal entitlements or equality of opportunity are less interesting than it is usually thought. I argue that the fight against health inequalities must be justified looking at its potential consequences, in particular its distributive consequences – and that social disparities in health behaviors illustrate the benefits that we may expect from social policies aimed at leveling disparities in resources.

Taken together, the three theses flesh out a picture of the objectives of health policy in the light of the evidence regarding food choices, dietary diseases and social inequalities in health behaviors. While conducted with food choices in mind, I hope that the picture - if coherent - may be unfolded

⁴ While the distinction between “supply side” and “demand side” economic policy is mostly ignored in philosophical literature concerning public health, it can be employed here to tell apart the topics of chapter 3 (in part 2) and 4 respectively. Supply-siders point out the economic benefits of investments in productive factors, most typically human resources in the case of social policy. Demand-siders advocate instead distributions of economic resources that can sustain economic demand. See Saraceno (2013) for the relevance of the distinction in social policy and a diagnosis of the current trends in policy analyses in this respect. Notice that while the disagreement is formally empirical, the distinction tracks a crucial political divide obviously underpinned by different moral options and interests.

in further directions. In particular, I take a clear stance between two kinds of development of public health analyses and practices in the last decades.

On the one hand, theorists of human decision making have studied in detail how individuals behave and react to specific environmental settings and structures of incentives - including settings that are relevant for health - reacting to a too schematic or simplistic representation of human behavior in the social sciences⁵. The paradigmatic work in this direction is Thaler and Sunstein (2008) libertarian paternalist approach to policy making, which has been influential in the health sector as well as in broader areas of decision making.

On the other hand, social epidemiologists renewed the long-standing tradition of epidemiology-based social critique in the context of the increasing socio-economic inequalities in economically developed nations. The paradigmatic specimen of this tradition is the influential volume edited by Marmot and Wilkinson (2006) on the social determinants of health, whose influence has spread well into international organizations (e.g. the World Health Organization⁶) and governments.

These two traditions need not be opposed and indeed they are often taken to be allied in discussions regarding issues of personal responsibility for health⁷. This is not surprising because both traditions might perceive as suspicious the notion of individual responsabilization and the underlying devolutionist attitude toward public intervention. Indeed, they both start from a common progressive and “reformist” mindset. As it were, they both assume that the human condition can be ameliorated through political actions and reforms, quite independently from the cultivation of individual “morality” and virtuous behavior. Yet their different focuses - their partisan *Einseitigkeit* (Weber 1949 [1904])⁸ - do correspond to very different normative outlooks. Basic moral options are revealed in this case not so much in explicit principles but in the kind of leverages that different traditions believe can be acted upon for betterment of some pressing social problems.

⁵ This is a development somehow internal to microeconomics, fostered by progresses toward more realistic depictions of human behaviors. See Roncaglia (2005) for a critical comment.

⁶ WHO reports on the social determinants of health – with a global focus - can be downloaded at: www.who.int/social_determinants/ [Accessed: 1st October 2013]

⁷ See *infra* section 3.2.3b.

⁸ Weber’s observations on the neutrality of the social sciences are fruitful here. Fundamental value judgments are intrinsic to the choice of certain disciplines on the part of researchers, though this does not impinge on the neutrality of their results and methods *as such*.

Behavioral economics, psychology, neurophysiology and the other sciences of decision do prefer policies that *will not hurt anyone*, for both historical and theoretical reasons. They indeed developed within the framework of economics and its particular understanding of neutrality: acceptable policies must improve human well being without imposing (non-compensable) costs to anybody⁹. It is neutrality so understood that leads these theorists to propose closer attention to the physical environment and human biology in order to tinker with the “architecture of choice”. We might say that their proposals are ultimately *technological*.

The problem, at the end of the day, is whether this can suffice – a problem of efficacy. The traditional focus of public health officials and campaigners on comprehensive health services, adequate economic resources for all individuals and healthy environments do not shy away from controversial statements, robust calls for social and economic reform and political egalitarianism. Their proposals are not technological in nature but *social*, in the sense that those researchers do accept that political choices might further some interests at the expenses of others.

This work is ideally a small contribution to the latter tradition: the results of social epidemiologists can be embedded in very different normative pictures of political action and I aim at providing some landmarks for the depiction of a coherent one. An interventionist stance against unhealthy behaviors, the rejection of responsibility-sensitive distributive theories and egalitarians value are key components of traditional public health: I hope to provide some philosophical support to these ideas explaining why their underlying morality is sound.

Public health and moral theory

Before describing the overall plan of the thesis, some words about the *kind* of work it intends to be are necessary. First, there exists an established discipline to which this work belongs: public health ethics. The ethics of public health is a discipline that developed in the last twenty years and by now has its own recognized community, experts, journals and cultural references. While being

⁹ See *infra* section 3.2.4 for a discussion of the moral *rationale* of this approach.

associated at its beginning with medical ethics and its core theoretical preoccupations (i.e. personal autonomy and beneficence), it has afterward developed apart and stands on its own with a distinctive intellectual program. Themes and objectives of this thesis unfold entirely within that discipline. In the following, I will address the moral problems that are encountered when societies promote the health of the population by means of interventions that go beyond health care settings *and* the moral problems that arise from the general organization of both health care and public health actions. This is by convention what public health ethics is about. Particular methods have become influential in this enterprise, in particular contemporary moral philosophy and political theory: in the literature, we might recognize a characteristic mainstream liberal Anglo-Saxon¹⁰ approach on which I will rely for conceptual tools, language and argumentative strategies. Alas, this option is not neutral and I hope not to take on board too many unstated assumptions or overlook interesting options by taking this route.

Some assumptions that are instead *characteristic* of my approach and are not included in the tacit knowledge of mainstream moral theoreticians are listed below. They pertain to the nature and content of moral theory, the role of moral experts in democratic societies and the use of empirical data and results of the descriptive sciences in the latter. Some things will be obvious for the readers with an expertise in philosophy, as many of the scientific facts will be trivial for physicians and biologists later on. Please consider that I am just declaring my assumptions, which I take to be either relatively uncontroversial or necessary if one is to enter the kind of discussion that I intend to develop.

To begin with, this thesis is a piece of moral reasoning. I describe some arguments regarding what we ought to do and what we should not do. It mostly regards very specific kinds of action, namely policies that are implemented by public authorities. While the principles and topics that I discuss here are thus - in a simple sense - “political”, I do not draw a sharp distinction between normative political theory and moral theory. The latter is the inquiry about what we ought to do, the former its

¹⁰ The English-speaking philosophical community share some methodological standards and values that can be referred to – with the approximation permitted by the vagueness of the term – the liberal tradition.

subset regarding political actions¹¹. Political actions are defined here both as individual actions that exert effects on society at large and actions that could be attributed to social collectives, e.g. public authorities. There are no precise boundaries – I maintain - that distinguish political actions from other kind of actions and, since this distinction does not make any crucial work in what follows, we can safely ignore the issue: while moral reasoning in the political domain has its own particular topics, problems and principles, I assume there is much continuity with other fields of moral inquiry, or at least enough continuity to employ the same tools of moral inquiry in general in this specific field.

What kind of things must be considered when reasoning about what we ought to do, politically or otherwise? In other words, what matters in political and individual actions *as far as morality is concerned*? What is the ultimate source of our moral concerns when we deliberate about the best course of action? Which state of affairs should we want to bring about and why? Most of us do not think that we can do whatever we please, yet what are the kind of constraints and obligations that determine what we are forbidden or required to do?

Certainly there are people that will say that nothing of this kind exist, or that obligations and constraints exist but do not have moral force, e.g. they might say that obligations are just entrenched social habits, evolutionary wired features of human beings with no normative bite or merely subjective beliefs. If this were indeed true, there would not be any theorizing about ethics that was independent from positive anthropology or sociology. This position is however very revisionists, since most people do believe there are genuine moral obligations, and they will probably admit it if pressed to reason about very blatant cases of violation of moral obligations. Yet people (and moral theorists) are very likely to disagree about the source of the force of moral obligations. I will *assume* in this work that there are interesting moral truths and good answers to many questions regarding what we should do and what we should not. I also assume that the best way to discover these truths utilizes rational analysis and argumentations. I do not offer general argumentation for neither of the theses: a good way to prove that moral philosophy is possible is –

¹¹ The independence of political theory from ethics is a debated topic in contemporary political philosophy (Galston 2010), with the mainstream *applied ethics* approach speaking against it. As for all these foundational issues, I ask the reader to evaluate my approach *a posteriori*, judging from whether or not the work presented here illuminates important political issues.

possibly - doing it. Yet we should begin considering what kinds of argumentations will matter in this pursuit. What shall moral reasoning in the following pages be all about?

Different theorists and, more generally, different people endorse a variety of answers to the latter questions. In other words, they disagree on the *content* of moral theory, i.e. they have different ideas as for what ultimately matters and should concern us when reasoning about morality.

Let us take for illustration a moral obligation, say “thou shalt not kill”. Why is this true, as you may agree it is? Or, for those who dislike the truth-talk in moral theory, why is this *really* an obligation? If pressed to answer, different people and theorists will refer to the human right to life, reciprocity (“do not do upon others etc.”), individual interests, the holiness of life, etc. These are moral theories, or sketches thereof.

By expanding these answers we can come to know that some believe that some beings, more often persons, are endowed with a set of natural entitlements that nobody can infringe without committing injustice (i.e. right-based theories). Some others argue that the source of morality must be the basic fact that some beings - moral agents - can enter cooperative schemata and discuss what they owe to each other for the sake of effective and/or peaceful cooperation (i.e. contractualism). Some believe that God created some beings of special value and set on stones the rules that they ought to follow (i.e. some religious world views). Others argue that the only plausible sources of value are needs, desires or preferences (in short, interests) of those beings that are capable of having this sort of things (i.e. utilitarianism).

In this work, I will discuss pieces of moral reasoning that derives from any kind of moral theory¹². Nonetheless, the thesis is not entirely neutral on the issue. Though I do not *assume* the truth of any moral theory, I will suggest that my thesis gives some weak support to the idea that the latter conception sketched above - utilitarianism - is the correct theory of what morality should be about. I take utilitarianism simply to be the thesis that the whole source of morality are interests (needs,

¹² I will not discuss religious views, in part because they are not relevant for the issues at stake here and in part because they normally do not fulfill some requirements of publicity that we might ask in order to count something as a moral *reasoning*. This is somewhat arbitrary without further explanations but luckily does not bother us in this field.

desires, preferences) and the consequent¹³ thesis that we should aim at their maximal satisfaction. On the one hand, I will explain why - in many circumstances - considerations regarding rights and duties and several theories of justice that do not stem from utilitarian considerations are either unsound or irrelevant for the issue at stake. On the other hand, I will argue that most moral concerns in the field under the lenses of this thesis can be reconstructed starting from human interests in the utilitarian sense.

Now, why should this result suggest that utilitarianism is the correct moral theory? After all, my result just shows that we *could* explain our moral concerns in utilitarian terms in a very small fragment of moral deliberation. Perhaps there are other possible reconstructions and/or pieces of the moral world that do not fit the utilitarian perspective. Plus, these conceptual reconstructions can be often made on the opposite direction, thus hinting exactly at the opposite conclusion.

The argument for the thesis that any *reduction* to utilitarianism suggests that utilitarianism is the true moral theory was proposed by Singer (2002 [1979]) and depends on the idea that utilitarianism is - so to say - the *default* moral theory. That is, everybody should *prima facie* accept utilitarianism and give *case by case* reasons to ignore interests and/or *general* reasons to add non-utilitarian considerations into moral deliberation. Let us see why Singer defends this idea. First, nobody denies that interest *matters*, though theories do disagree as for why interests matter (for instance, a right-based theorist would say that the respect for persons is what ultimately ground the obligation to protect personal interests, which then have a purely derivative value). Second, if we assume that moral theory should be universal, it is natural to start by assuming the truth of utilitarianism. Indeed, universality is simply the assumption that every being that is morally worthy must be considered equally by *any plausible* moral theory. This is a very weak sort of egalitarianism: it permits treating beings differently if their conditions are different in morally relevant ways. Singer does not think that we should provide an argument for this principle, and here we repeat the same judgments: the principle explains by inspection why it must be accepted. We can also say: that is by analysis what morality is about: if somebody does not accept the principle, he is not speaking of morality at all. Now, needs and desires are - by inspections - things whose satisfaction is good for

¹³ If interests are the *only* source of morality, the principle of maximal satisfaction does not seem to be escapable.

the deliberating moral agent: as we have seen above, nobody denies that interests matter. When a deliberator starts thinking morally, he will learn that *de facto* there are several others beings capable of having needs and desires and, given the universal point of view that is intrinsic to ethical deliberation, he must at least *prima facie* attribute to those interests and their satisfaction equal weight. My interests matter to me, *hence* the interests of the others matter equally when taking the moral standpoint. This is close to utilitarianism, minus the thesis that what matter are *only* interests. This is at the end to be argued for case by case: it is a general statement and no proofs are available in this field. So utilitarianism is *prima facie* plausible and any different source of moral concern is, in one sense, additional. If this is correct, utilitarianism is the default moral theory and thus any reduction of pieces of moral reasoning to utilitarian considerations suggests the truth of utilitarianism.

While this is not strictly necessary for the soundness of my general arguments, I wanted to signal this underlying utilitarian bending so the reader might take it into account in order to keep together different sort of arguments in a coherent whole¹⁴. From the anticipation of my results above, it should be already clear how I will stay away from right-based theories of justice and focus on goods and bads in utilitarian terms. This is argued for in every single circumstance but it obviously stems from the general theoretical option that I disclosed here.

Moral theory, politics and democracy

Even if one accepts the very possibility of moral theorizing, he may be puzzled by the seemingly problematic consequences of moral theory in the political sphere. Indeed, it seems that if moral theorizing succeeds – i.e. describing truthfully what we should do and what we should not do - there is no need of additional decisional processes to take correct political decisions. In particular, the democratic decisional processes that most of us take to legitimize political decisions seem redundant. This would put moral theory in a dangerous predicament, since democratic values are –

¹⁴ In section 3.3.1 I will discuss in some details what I take to be *the content* of utilitarianism (i.e. I will sketch a theory of interests).

for good reasons - held in high esteem: any clash with democratic values might jeopardize the edifice of moral philosophy¹⁵. Let us see whether we can overcome this important obstacle.

Apparently, *successful* moral reasoning is incompatible with *any* independent (i.e. non epistocratic¹⁶) political process of decision making. A moral theory provides independent criteria for the evaluation of the outcomes of political processes and these criteria alone would confirm or repudiate any actual political decision stemming from any instance of the process. Assume for instance that utilitarianism is the correct moral theory: then if policy A brought about a state of affair that is morally superior in terms of utility to the consequences of policy B and the political process decides for B, the latter decision would not be legitimate, i.e. we would not be under moral obligations of upholding policy B or obeying the statute B, etc. On the other hand, we would have these obligations if the political process brought about A, but *the source* of this obligation would be the moral theory rather than the political process itself. In both cases, the political process is *redundant* and does not add anything to the legitimacy of the decision.

This is however too swift and assumes that the theory of legitimacy must equate *good* decisions with *legitimate* decisions. This is not necessary and does not follow from any of our premises. The true content of the theory of legitimacy (a crucial part of morality indeed) might require political decision making being made democratically *independently* from the coherence of its results with *other* pieces of moral theory (Estlund 2010). This divergence is not odd, and might happen in several manners depending on which moral theory is actually correct¹⁷.

Within utilitarianism, democratic decision making might tend to *reliably* approximate good decisions in utilitarian terms, for instance for epistemic reasons related with the fact that actual desires and needs of people are effectively sought for with voting and/or with some other epistemic virtue of democratic deliberation. This is why the outcomes of these processes are legitimate even if in some cases they *happen* not to track the best or even a good decision. Also, it is possible that any other decision making process, for instance the deference to moral experts, would tend to

¹⁵ This is of course a problem that surface in several guises in political theory, most notably in debates regarding substantive and procedural justice.

¹⁶ Epistocracy is a form of government where political authority is attributed to those who know better, including moral philosophers – the obvious ancestor of these views can be found in Plato's Republic.

¹⁷ See for instance Valentini (2012) on a general treatment of the contradiction between legitimacy and justice in another context and within a different moral theory, which starts from equal respect for persons.

produce even worse outcomes and/or would not be accepted because of some entrenched sociological facts (i.e. suspect toward experts) that would cause at the end serious social bads¹⁸. I take some refined version of this sketch of a theory of legitimacy to be correct, though any other composition of the divergence between procedural legitimacy and substantial justice will do the job as well. What is then the role of moral experts in democratic societies? What is the whole point of a work in moral philosophy aside from its theoretical merits, if any?

If some theory of legitimacy on the lines above is correct, any defensible view of the role of moral experts in democratic societies will situate them in the process of deliberation rather than anywhere in the formal decisional process. That is, moral experts will not be endowed of authoritative power (i.e. formally sanctioned *sui generis* causal power on decisional procedures) but rather will contribute in some particular non-authoritative way, most likely in the *deliberative* steps of democratic political processes.

The process of deliberation is here just the set of activities (normally *verbal* activities) that precede formal procedures of decision making (e.g. voting). In the deliberative phases, people discuss about political decisions explicitly, confronting their own interests and their own views of the good and justice. These discussions will not happen in a vacuum but they will necessarily employ existing references, e.g. books, pieces of reasoning, shared social ideals. The moral expert is simply a scholar who takes care of this sort of things.

There can be different functions that he might exercise. There is first of all a fundamental *house-keeping role*: since some ideas could spread *despite* their moral deficiencies, it could be very useful to have scholars dedicated to find them out and get rid of them, if they can. Also, some ideas could be poorly developed, and some scholars will try to flesh out their consequences and discuss about their foundations in order to evaluate them more carefully in the public arena. This can be thought as a sort of *consultancy* role. Also, some other moral experts will propose genuinely new prescriptive ideas for discussion: this is the *inventive* role.

¹⁸ This can be understood starting from the distinction between act and rule consequentialism: though any particular act of acceptance of a political decision that is taken democratically might be bad, as a rule it is better to comply with democratic outcomes because in the long term or overall the result will be morally superior.

The role of these experts is obviously continuous with that of laymen: there are no clear criteria to distinguish who can take up the role of moral expert and who cannot¹⁹. Yet this is not a reason to believe that the role of moral philosophers is dispensable. It could be *good* that we appoint people who are dedicated quite specifically to these activities rather than others. At the end, the proof of the usefulness of moral philosophers will be in the quality of the debate and the goodness of political decisions that moral experts will be able to foster.

Although I am confident that such role for moral experts is defensible, the actual influence and usefulness of moral experts in the real world is matter of debate on theoretical grounds. While I mentioned above some empirical theorists in political science that believe that prescriptive ideals (in their three layers) are causally influential on political processes, there is a whole tradition in the political sciences that denies that morality – let alone moral experts - is causally relevant, namely political realism (Petrucciani 2003). If this main tenet of political realism is true, then the role of moral experts is *de facto* nil in real world settings.

There are several versions of political realism, from skeptical Machiavellian versions ultimately due to pessimistic views of human nature (i.e. moral motivations are never an important cause of *successful* political action) to the historic materialist version that declares that class warfare is the only engine of history. These frameworks might all describe truthfully some or all political processes, since they are *bona fide* positive theories of politics that can be confirmed or refuted in any particular instance. However, we may observe that in societies where the discussion about the good is systematically organized and channeled into the political process, it is hard to deny any causal role - if only proximal - to normative political and moral theory. If so, many of us live in societies where political and moral theory could have more than a merely theoretical interest. Perhaps the world is not really “ruled by little less” than ideas of “economists and political philosophers”, as Keynes famously put it (1997 [1936]), but *some* influence of these ideas - especially in democratic societies - is hard to deny.

¹⁹ This is matter of debate. See Gesang (2010), Archard (2011) and Gordon (2012) for different positions on the problem. My very weak statement should not be undermined by any of the rival solutions.

Normative reasoning and the sciences

In this work, I will employ quite often scientific data and theories²⁰. Sometimes data and theories are necessary to explain the general context of a discussion and the relevance of the issues that I am tackling, for instance when I describe how many people are affected by certain health conditions in chapter 1. I take this to be quite uncontroversial.

Sometimes empirical material is instead embedded in the kernel of my normative reasoning, so I need to explain why this is acceptable given the common skeptical attitude of moral philosophers toward the use of empirical materials in normative reasoning²¹. There are three main patterns of uses of results from the positive sciences in this work. I explain here why they are unproblematic.

First, I will sometimes use empirical results in arguments that are consequentialist in nature. One key example may be the section 4.3.3 where I will argue that recommendations of two purportedly different principles of distributive justice overlap substantially as for their recommendations *given what we know* about how social health inequalities are transmitted across generations. If p ought to be the case, there will be better or worse ways to bring p about and empirical evidence is obviously necessary for picking up the best policy option. Notice that this is a widespread pattern of argumentation in moral reasoning, since we often criticize general principles pointing out what we would have to carry out if the principle was true. This is especially important in moral and political philosophy, where issues of feasibility of certain political actions and outcomes are most relevant.

Second, data from sociology, behavioral economics and psychology will illuminate some issues regarding paternalism and responsibility in chapter 2 and 3. I will touch upon various explanatory hypotheses that shed light on the agency vs. structure debate²² in the explanation of a particular set of decisions: nutritional choices. This should also be considered uncontroversial: the application to specific cases of concepts as “responsibility” and the like will depend on the actual details of the

²⁰ Here, I speak alternatively of “descriptive” and/or “empirical” material. While the two concepts are distinct - they indicate respectively how the world is and function and a particular set of methods to study it - *as a matter of fact* there is no other way to know how the world is if not through methods that are empirical in nature.

²¹ See Holm (2004) for a book-length treatment of this issue in the case of bioethics.

²² A common pattern of empirical disagreement in human sciences regards the apportioning of causal weight to individual choices or sociological structures: this is the agency vs. structure debate.

circumstances of choice, which are empirically analyzable. More importantly, empirical evidence urges philosophers to devise analyses of descriptive concepts (e.g. “free choice”) that are compatible with what we know about our world. It is not as if empirical sciences alone might give the best analyses of concepts that are normatively laden (e.g. responsibility). Normally, they cannot and neither are they too interested in the pursuit. Nevertheless, results from the sciences function as side constraints as for which concepts are useful in our world *as it is*. For instance, a concept of personal identity that does not mention the genome or other biological features at all is probably empty for all we know about human beings, thus being useless for any practical and theoretical purpose. I will make a similar point for conceptions of responsibility that require choices to be free in a supernatural sense in section 2.2.3. This use of empirical material is also logically harmless: the employment of the sciences in philosophical *analyses* of concepts is indeed widespread.

Third, moral philosophers are often skeptical of those who make use of empirical results in their prescriptive reasoning for Humean reasons: the world *as it is* cannot give us indications as for how the world *ought to be*. In one trivial sense, this is correct, for bare logical reasons. Yet once we do have a prescriptive moral theory among our assumptions, the Humean prohibition will not prevent the use of relevant empirical material, again for logical reasons. The Humean prohibition bans only those arguments that conclude to a prescriptive conclusion from a set that contains *only* non prescriptive premises. Given a suitable prescriptive premise, any kind of empirical material becomes relevant. Let us for instance assume that utilitarianism is the correct moral theory: then any evidence regarding human interests is very relevant for moral deliberation, from sociological and econometric studies of people’s actual desires to anthropological, historical and biological inquiries on the human nature and its constraints. This are cases where what people actually do and think is central to the question regarding what they and others should do and cannot do.

There is of course a more general way in which “the world as it is” matters. Philosophical work is not that kind of pure science that might appear to be in mainstream analytic theorizing. It depends on a very specific cultural history and particular human interests. There is nothing particularly worrisome about these facts; neither this *secularity* threatens as such the objectivity of the results of philosophical inquiries. No matter how much some epistemic tools are historically situated and

were developed for non-epistemic purposes, they might still be epistemically reliable, in the sciences as in moral inquiry. Yet it is very important to acknowledge what kind of mundane objectives philosophy might serve: some of them are indeed praiseworthy, other much less so. This requires some sociological theory: I will try – where I can – to describe at least roughly the kind of contexts where some prescriptive principles have been used²³. Though this is somehow less than standard in normative reasoning, I hope it may allow for a better all-things-considered judgment.

So far I have outlined the main methodological premises of this work. In particular, I suggested which the underlying moral theory of this thesis is, I explained what can be the role of moral theorizing in democratic societies and I defended the role of descriptive and empirical material in moral reasoning. The next section outlines the program of the work.

Plan of the work

The structure of the thesis is as follows. There are chapters (n), subchapters (n.n) and sections (n.n.n). Chapters are intended to be independent one from the other: aside from the introduction and the conclusion, they correspond to the three main theses above regarding paternalism, responsibility and social health inequalities. Subchapters contain each a main thesis that coalesces with the others in the general argument of the chapter. Sections are instead small arguments that are closed on their own. Sometimes they are short reviews, sometimes independent pieces of reasoning, sometimes corollaries that ought to be developed for completeness.

The next chapter is a review. The only kind of work that I did there has been a simple collection of useful material from the scientific literature. The chapter contains the bare bases to discuss the issue of diet related diseases *in context*. Mainly, I will discuss the extent of the problem and the strength of the evidence that connects nutritional choices with major chronic diseases. I also discuss the social distribution of these conditions and their effects on social services, plus a brief review about the kind of interventions that are being devised, implemented, and/or evaluated by public authorities and other actors to halt the epidemic. I will mention briefly issues of clinical

²³ Especially in sections 2.1.3, 3.2, 4.1.1, 4.2.1, and 4.3.

effectiveness and cost-effectiveness of these interventions: why I will not reserve too much space to these issues, they are obviously as important as the moral discussion - from which they are not entirely distinguishable - for a complete evaluation of those proposals.

The second chapter deals with paternalism. Subchapter 3.1 is my reconstruction of the debate in terms of *kinds of antipaternalism* and my evaluation of previous approaches to paternalism in public health ethics. 3.2 explains why what I will call “liberty based antipaternalism” is less important than it is normally assumed, both in public health and in general. 3.3 reconstructs what I call “welfare based antipaternalism” and discusses its application to the case of interventions on food choices.

The third chapter deals with responsibility and the social value of personal good health. It is divided in a subchapter on productivity (3.1) and one about costs (3.2), each containing an introduction regarding the social value of, respectively, productivity and decreased health costs and a longer section with normative arguments regarding whether we should appeal to personal responsibility for health - and why.

The fourth chapter tackles social health inequalities in health behaviors and their moral significance. Subchapter 5.1 reviews the social surroundings of that debate and explains to what extent health policy could be considered *as such* an issue of distributive justice. 5.2 reviews and criticizes previous proposals due to Norman Daniels (2008) and Powers and Faden (2006), while 5.3 mounts an attack to equality of opportunity on behalf of resource (or welfare) equality.

The fifth chapter wraps up the entire work and summarizes the main conclusions, suggesting further directions of analysis.

1. Diet related diseases.

Natural and social history of dietary diseases

This introductory chapter collects some important facts regarding diet related diseases. Its main purpose will be the characterization of the epidemic and a proof of its medical and social relevance. Some scholars have argued that the epidemiology of risk factors might have been used to *medicalize* conditions that are not medically worrisome and/or to further the interests of powerful drug companies (Greene 2007). The epidemiology of risk factors, in this view, would be a tool in the hands of companies to open up new niches for sales and expand their markets for dubious drugs. While worries about disease *mongering* are an important concern, I would like to dispel some common doubts about the importance of diet related health conditions for contemporary societies. This sheds light on the relevance of the prescriptive issues that I will address afterward.

I divided the material that I present here in three parts: the biology and natural history of diet related diseases (1.1), their impact on societies (1.2) and a short part dedicated to policy responses (1.3) that have been envisaged and/or implemented.

1.1 The natural history of diet related diseases

For most readers, food will be something which can be taken for granted. Both its availability and its quality are not threatened in economically developed countries. There, concerns about food emerge at most when frauds or malpractices do put at risk the health of people, as it was the case - for instance - with the bovine spongiform encephalopathy in the '90s. Although the latter is truly a scaring condition, those cases, from the standpoint of sheer numbers, did not have a huge impact on public health and yet ignited public debates and reactions that are not to be seen in the case of other issues pertaining to food. In reality, the food system is a most sophisticated apparatus which can boast some truly stunning achievements and equally impressive flaws. Indeed, it would deserve broader discussions than it is usually given. Despite its invisibility, the food system is a major determinant of societal well being and, indeed, of the very viability of the human fabric as we know it.

In this subchapter, I will discuss in some detail the role of the food system in the determination of the prevalence of (and the mortality from) chronic conditions. I start from a brief history of the impact of food on major demographic patterns in human populations, moving then to epidemiological data regarding diseases and, finally, to mechanistic explanations grounded in molecular biology as for how bad diets might cause obesity and serious illnesses.

1.1.1 Food and well being: the dynamics and consequences of nutritional transitions

Food plays a major role, albeit paradoxical, in human well being. The collection of food is a chief preoccupation for traditional and poor societies. In the first case, a great amount of *time* is spent in activities that are associated with the provision of adequate calories and nutrients²⁴. In the second case, most of the household *income* is spent in purchasing food – and so most time is spent again for the collection of food working in other sectors. This contrasts with the fewer hours of work that are on average spent in richer societies for the same task (e.g. 14% of income in Italy, one of the highest among high-income countries according to ERS/USDA data, the US federal agency for agricultural research).

The major food problems of poor societies are (1) fluctuations – in harvests or prices – that may lead to the edge of starvation entire populations and/or (2) systematic malnutrition. In current terms, the problem is one of “food security”. The liberation from these threats is a major achievement in the history of humankind, an achievement that alas is not completed for billions of people. Malnourishment still kill to a massive extent and indeed impair further perspectives of economic growth, given the well-studied circular feed-back effects between food availability, productivity, and wealth (Floud et al. 2011, Strauss and Thomas 1998).

Yet even when societies enter the path of economic growth, the gains in well being that were brought about by the extended availability of food might peak and, at the end, decline - for several (partially interwoven) reasons. I mention here two major points. First, the production of food is one

²⁴ Though see Sahlins (1972) for a different analysis of harvesting time in traditional societies.

of the major drivers of environmental depletion and its dire consequences on human well being and, second, the plentitude of food might be a direct threat for health as well, the topic of this work.

Few words about the first issue: the major determinant of biodiversity loss worldwide is habitat conversion, i.e. the transformation of natural ecosystems in productive lands (Reid 2005). This is driven to a great extent by agriculture and much less so by other human activities (e.g. urban development). The problem has indeed grown increasingly worrisome in the last decades, since diets are becoming based more and more on meat worldwide, which requires wider areas for the production of an equal output of human nourishment. Alimentation based on meat causes further environmental damages, since a substantial proportion of greenhouse gases emissions are due directly to animal husbandry (i.e. enteric fermentation + husbandry associated transportations) for human feeding. These are certainly *the* major concerns as for the ultimate unintended consequences of the “green revolution”.

Under the label of “green revolution”, it is usually meant the progresses in agricultural technology that started at the end of XIX century, were boosted by the invention of artificial nitrates in the ‘30s and continued well into the ’70s with the development of chemicals that increased massively the yields of common crops. Aside from environmental depletion, there is a further dark side of the green revolution: the increase in the incidence of diseases that are associated to unhealthy diets. There are indeed well-studied correlations between agricultural modernization and the appearance of diet related disease (Popkin 2010).

According to the “evolutionary mismatch theory”²⁵, the plentitude of food that characterizes contemporary societies does not fit humans whose biological machinery was wired in an environment in which scarcity of nutrients was endemic. Together with the increasing prevalence of sedentary works and lifestyles, the availability of cheap calories-rich and nutrient-poor food caused a visible increase in the average body mass index (BMI)²⁶ of several human populations. By now the epidemic of obesity is indeed clearly pandemic, with *most* of the countries affected, indeed

²⁵ For the first mention of this theory, see Pani (2000) – who applied the concept to the explanation of common psychological conditions.

²⁶ The body mass index is defined as follows: $\text{weight}[\text{kg}]/\text{height}^2[\text{m}]$. See *infra* 1.1.3 for discussion.

even those where malnutrition is still endemic, causing a worrisome “double burden” of nutritional health conditions that menace those populations and their frail health systems (Popkin 2001).

While once the problem of diet related diseases was perceived to be mostly esthetic or at most associated with musculo-skeletal issues, there is now substantial evidence that obesity and other forms of dietary malpractices are associated with chronic conditions²⁷, conditions that are the leading causes of mortality and disability in most countries²⁸. Which are the broader drivers of this epidemiological process and how do they mediate between increases in wealth and dietary malpractices?

There are several recurrent demographic processes that have accompanied national economic development in several circumstances. Within this bundle of processes, we might distinguish the nutritional, the urban, the epidemic and the demographic transition²⁹. Taken together, these transitions explain why there is up to 5000\$ a positive and linear relationship between the Gross Domestic Product (GDP) and average Body Mass Index³⁰ (Swinburn et al. 2011) and how chronic conditions become endemic afterward.

Poor societies are characterized by food insecurity, young populations with high mortality and high fertility rates, life in the countryside (i.e. employment in the agricultural sector) and a high incidence of infectious diseases. While GDP increases, several processes modify all these demographic patterns. Food becomes secure given the increased resources that are available for local production and import. The population ages because both fertility and mortality rates drop - the first as a result of social change³¹ and the second because of sanitation. Massive groups of people become urban dwellers and, in many cases, pick up more sedentary jobs and lifestyles. Last,

²⁷ See next section for a description of diet associated chronic conditions.

²⁸ See the section of www.who.int dedicated to non-communicable diseases.

²⁹ There is considerable debate on whether the “transition model” is a simple description of a pattern that – for idiosyncratic reasons – characterized Western-style modernization or an explanatory robust pattern with which we may predict the effect of future transitions (Borowy 2012).

³⁰ The relationship becomes almost flat afterward and variance between countries must be explained by other leading causes (ibidem).

³¹ Fertility rates and GDP are inversely correlated: this is also called the “economic-demographic paradox”, given the intuitive idea that since child-bearing is costly, it should increase rather than decrease along with wealth.

chronic diseases, that are in fact common even in poorer societies³², become the leading cause of death because infectious diseases disappear altogether or shrink to a considerable extent and the aging of the population brings to light maladies that are typical of the last decades of life.

These are of course *positive* developments: all these phenomena contributed substantially to societal well being and indeed no one has ever advocated *poverty* as a solution for dietary diseases. Needless to say, there is good evidence that wealth is a main driver of social welfare - at least from low to middle-high levels of GDP pro capita (UNDP 2011)³³. Yet there are clear drawbacks of the processes that led to decent levels of wealth, drawbacks that should be addressed in order not to jeopardize the results of the important ameliorations to life that wealth brings about.

1.1.2 The epidemiology of diet related diseases

While in the next section I will focus more specifically on which dietary determinants are related with specific health outcomes, here we will employ *obesity* as a proxy for the illustration of the trends of the epidemic of diet related diseases worldwide.

The definition of obesity is controversial: typical measures include the Body Mass Index (BMI), waist circumference and waist-hip ratio. A BMI higher than 30 points is taken to be the benchmark for a diagnosis of obesity in most publications, for both practical and theoretical reasons and despite obvious methodological limitations due to differences in body structure between sexes, ages and ethnicities. Body Mass Index is readily measurable and approximates a measure of total fat mass of an individual, while waist circumference and waist-hip ratio seem to correlate with intra-abdominal fat content (i.e. central adiposity) only, which is independent risk factors for some conditions, as type II diabetes, but is *not* the variable that explains most of the excess of mortality

³² Mortality due to chronic conditions could indeed even *bigger* in some poorer countries than in richer ones while infectious diseases are still common: mortality rates are indeed sometimes *much* higher in poorer countries.

³³ The calibration of the objectives of development is a major site of political disagreement, with several critics of economic growth as unique and/or overarching political objective pointing out several flaws and anomalies of the mainstream wisdom. Here I only remind that the only reason why that debate is controversial and important is indeed that wealth and its growth *are* key determinants of human well being and anyway proxy measures for valuable achievement in human development.

due to bad diets. The epidemic of obesity - as measured by BMI of individuals - appeared in most high-income countries in the '70s. The estimates for 2008 show that 1.46 billion adults were overweight globally (body-mass index > 25) and 0.5 billion adults were obese. There were 170 million children (younger than 18 years old) globally that were classified as overweight (Swinburn et al. 2011).

For Italy, recent data were collected by the local health authorities in Milan under the program PASSI ("Progressi delle Aziende Sanitarie per la Salute in Italia") for the surveillance of the impact of local health services in Italy. According to this research, 31.6% of people in Milan are overweight, while 10.6% are obese – in line with the world-wide data.

The epidemic of obesity has severe health effects on the population. BMI over 25 correlates with type 2 diabetes, cardiovascular conditions and many kinds of cancer (i.e. Non-Communicable Diseases, also known as "NCD"). Also, mortality for all causes as a function of BMI takes a typical U-shape with a minimum between 20 and 25 points of BMI. Taken this relation into account, in 2004 there was an estimate of 36 million of disability-adjusted life years attributable to obesity³⁴.

The condition is often clustered with other conditions related to diet, with a recognizable clinical facet: the metabolic syndrome (i.e. dyslipidemia, insulin resistance, glucose intolerance, elevated blood pressure). We will avoid this term altogether since there is disagreement as for whether the term "metabolic syndrome" is of any clinical use, since many researchers believe that the therapeutic approach will in any case consist in targeting these conditions separately (Wubben and Adams 2006).

NCDs are the main cause of death in most countries, indeed in all countries if we exclude some sub-Saharan states where infectious diseases are still endemic or increasingly so (i.e. due to HIV infection). The main preventable risk factor for NCDs are dietary factors according to the World Health Organization, and indeed recently diets may have overtaken tobacco as the chief preventable threat to the health of human population, partly because smoking campaigns have been

³⁴ The DALYs are a common metric in epidemiology and health economic evaluation that combines in a single measure the loss of life-expectancy and the loss of health due to morbidity. It has been widely used in the publications of the World Health Organization and it is has become a crucial tool to measure the burden of disease.

successful in several countries and partly because of the worrisome trends of the epidemic of diet related diseases.

Indeed, there are no signs that the epidemic has peaked, if not in some European countries where incidence seems to have reached a plateau or declined among the younger, e.g. in Sweden and France (Swinburn et al. 2011). In developing countries, there is a growing tendency of co-existence of infectious diseases and NCDs due to lifestyles. In the case of diets – as briefly mentioned above - there are even paradoxical situations where obesity appears where malnourishment is still endemic (e.g. Mexico), and indeed there are cases of rapidly growing countries where the two problems are flanked in the same *households*. This is however not surprising if we bear in mind the sharp social stratification of the condition, which is the object of section 1.2.1 below.

1.1.3 The biology of obesity and diet related diseases

Which is the underlying biological driver of the epidemic of obesity? As for any other human trait, we may start looking at the biology of obesity and diet related conditions from the standpoint of the key question of most biological thought: are these conditions innate or acquired?

This question is most often given the interpretation that equates innate conditions to those due to endogenous *genetic* factors and acquired conditions to those due to exogenous environmental factors, usually with the implicit premise that a mark of the first causal pathway is its *heritability*. While these questions remain an important first sketch of the terrain, the biological world does not lend itself to these sharp distinctions, and the biology of diet related diseases is no exception. There exist genetic and non genetic endogenous heritable factors and sometimes they are not innate (e.g. epigenetic marks). There are indeed even environmental and exogenous heritable factors (e.g. channels of social inheritance). In practice, any combination of the distinctions innate/acquired, endogenous/exogenous and genetic/environmental is possible.

Also, it is impossible for most complex traits to characterize them univocally employing those distinctions. The following is most often the case: the occurrence of a trait in development and its

specific features are neither acquired nor innate, nor they are genetic or environmental, they are *developed* (Mameli 2005). That is, individual traits result from endogenous *and* environmental determinants that coalesce to build up - in our case - a specific health outcome. In the following, I will mention some of these drivers telling apart genetic, epigenetic and environmental factors. While we may disentangle epidemiologically their causal contribution, there is no obvious answer to the key biological question above in this case: diet related diseases are neither innate nor acquired, they are both. Part of the explanation resides in the human body, part of the explanation around us.

Genetics

The search for a “gene of obesity” has been facilitated by the possibility of massively sequencing human DNA from different patients and genome-wide comparing the data thus obtained. To summarize the main insights of this research in one sentence we may say the following: while there are several polymorphisms (i.e. genetic variants) disproportionately associated with obesity, none of them is either a necessary or a sufficient factor for the occurrence of the disease. In technical terms, “the most common forms of obesity are polygenic, with each [genetic] variant contributing to very small effect” (Fall and Ingelsson 2012).

At the beginning of genetic studies of obesity, family, twin, and adoption studies³⁵ have shown that adiposity is highly heritable: according to Maes et al. (1997), estimates of heritability range in the literature from 20% to 84%. The study of murine models of obesity and the confirmation in humans of the relevance for obesity of loss-of-function mutations³⁶ of genes previously identified in animal models prompted further investigations on the genetic underpinnings of obesity. While cases of early-onset extreme obesity have been indeed confirmed to be due to monogenic or

³⁵ Twin and adoption studies are crucial for disentangling biological and environmental effects, since the former can be kept fixed while the latter change in these conditions.

³⁶ Loss-of-function mutations are genetic variants, normally in protein-coding regions, where the gene does not retain any functionality.

oligogenic³⁷ mutations (e.g. MC4R defects and mutations over 15 different gene in Bardet-Biedl syndrome, respectively), the overwhelming majority of cases are confirmed to be highly polygenic.

After the first estimates of heritability, the search of genetic variants linked to common forms of obesity through candidate-genes approaches³⁸ has failed to succeed. Since the publication of the data from the human genome consortium (McPherson 2001), the first comprehensive map of common haplotypes and the availability of several full-genome sequences for humans³⁹, the research has turned instead toward unbiased approaches, searching for single nucleotide polymorphisms (SNPs) that are associated with the trait of interest, in this case obesity. The result of this approach have been summarized recently in a meta-review by Fall and Ingelsson (2012): they included 39 studies linking SNPs with BMI, waist circumference, waist-hip ratio, fat percentage, fat mass or metabolic syndrome. The top hit of the search has been a gene that was dubbed FTO (i.e. “FaT mass and Obesity associated gene”). FTO - however - explains only 0.34% of the variance in human populations, pointing decisively toward a highly polygenic condition.

Animal models of obesity have been also developed - following the results of genomic studies - in order to address mechanistic questions. Most positive signals in the genome-wide association studies come from non-protein-coding inter-genic regions, suggesting effects at the transcriptional or translational level of regulation of gene expression⁴⁰. Other key variants involve coding regions that are widely thought to regulate appetite and food intake. Functional analysis suggests indeed that obesity SNPs within coding regions involve most often neuronal pathways and, marginally, cellular metabolism (Speliotes et al. 2010).

The key example of the latter insight is indeed the already mentioned FTO gene. FTO - loss of function models have proved that FTO is crucial in energy metabolism, with deficient mice showing growth retardation, reduction in adipose tissues and lean body mass (Fischer et al. 2009).

³⁷ In oligogenic traits, variants in *few* genetic regions are relevant.

³⁸ Candidate-genes approaches consist in the formulation of biological hypotheses on the basis of available mechanistic insights. This is to be contrasted with unbiased approaches, which screen for genomic-wide differences correlated with the condition of interests without specific assumptions (in this case, without a presumption regarding which genes might be involved in the condition).

³⁹ Thanks to high-throughput genotyping techniques.

⁴⁰ The astonishing complexity of multicellular organisms is a result of several layers of control on the genome, which allow for differential expression of the same underlying genetic program in different tissues and times.

Church et al. (2010) have shown instead a dose-dependent increase in body mass in FTO-over expressing mice. The gene is highly transcribed in the hypothalamus, which is known to be an appetitive-control region, confirming in mice what was suspected in functional gene analyses.

The predictive power of results from genome-wide studies is low, despite the gap between heritability estimations and variability explained by known genetic variants may suggest some margin for improvement (Fall and Ingesson 2012). Together with further genome-wide studies, investigations in non genetic factors and environmental effects may help the solution of the biological riddle of obesity.

Epigenetics

The evidence from longitudinal studies of famine-ridden populations firstly suggested that biological programming in early life might be involved with metabolic dysfunctions in adulthood⁴¹. This has been linked mechanistically to epigenetic phenomena, i.e. relatively stable (inter and intra-generationally) regulations of cellular pathways that do not depend on underlying genetic variability⁴². Epigenetics is a key example of both how biological traits can be non-innate and how non-genetic traits can be heritable, thus illustrating the general lesson of the innate-acquired genetic-environmental entanglement that was sketched above.

Epigenetics has been also linked to phenotypic plasticity, which provides adaptability for individuals coping with changing environments (West-Heberard 2003). Epigenetic programming would be in this respect a tool that provides high flexibility to an otherwise rigid “wired” genetic program, given both its stability and sensitivity to environmental clues (Jablonka and Lamb 2005).

In the case of famine-associated metabolic disorders, this has lead to a speculative explanatory model that is a paradigmatic example of the so-called “evolutionary medicine” approach: the

⁴¹ E.g. as studied in the Dutch famine case: see Ravelli et al. (1999).

⁴² Epigenetic phenomena include DNA methylation at CpG dinuclotides, histone modifications, levels of RNA expression, etc.

“thrifty phenotype” hypothesis firstly developed in diabetes studies (Hales and Barker 2001). The idea is that famine and/or a poor material diet would trigger a reaction in the foetus that leads to a more efficient usage of energy in adulthood. As it were, the body is somehow “predicting” future scarcity. In case the scarcity does not appear, the metabolic pathway will be mis-programmed and could lead to health conditions as obesity. The thrifty phenotype hypothesis provides elegant details for the - somehow vague - hypothesis that our evolutionary wired traits and our environment do not match from which we started above. How much of this hypothesis is corroborated by evidence?

From epidemiological studies we know that peri-natal nutrition has long lasting effects on metabolic regulation. Both maternal hyper-nutrition and under-nutrition are associated with noticeable effects in children. The research program on the “Developmental Origin of Diseases” has uncovered these relations, giving some support to the thrifty phenotype hypothesis. Animal models of peri-natal food deprivation have confirmed these results, showing hyper-insulemia, hyper-fagia and adult-onset obesity in animals exposed to inadequate diet at birth (Sullivan et al. 2010). Similar effects are observed in the case of maternal and/or peri-natal hyper-nutrition, which is obviously not predicted by the thrifty phenotype hypothesis, but might explain part of the high heritability of the condition already mentioned above. In brief, there seems to be a nutritional optimum of diet during pregnancy that does not increase the risk of adulthood metabolic conditions. Both hyper-nutrition and hypo-nutrition are instead harmful, and the latter pathway lends itself to be a candidate example of the “mismatch theory” of diseases. Also, it hints at some biological mechanisms that may underpin the “double burden” of diseases typical of populations where two flanked generations experienced very different nutritional environments.

Environment

The last driver of obesity is clearly the most important in the present context, given the aims of this thesis. Since the ultimate objective is a discussion of issues pertaining personal choices and public preventive policy, it is crucial to argue that indeed diet related diseases are due to environmental

insults and, particularly, to expositions to risk factors due to personal choices. The distinction between personal choices and “endogenous” biological factors is alas not sharp: we have seen already above that genetic factors associated with obesity are arguably interfering with choices (e.g. appetite regulation pathways). What counts for the moment is however providing evidence that indeed obesity and the associated diseases are related to eating habits.

The simplest model of environmental determination of obesity is simply the equation between energetic input and energetic requirements: unbalances in the equation explain health problems. Excess of energetic consumption leads to over-usage of body reservoirs and, eventually, to stunting. Excess of energetic intake leads to accumulation and obesity. For the purposes of this section, it must be shown that both sides of the equation depend on lifestyles and personal habits.

Since the beginning of the 20th century, following urbanization and, later, a switch of the workforce in the service sector, the energy requirements of human populations in high-income countries have decreased. It is something of a puzzle that the prevalence of obesity did not increase till the ‘70s. The explanation must somehow come from the intake side of the equation: data from the US shows that energy available in the food supply decreased till the 1960s, keeping up with the parallel *decrease* in consumption (Swinburn et al. 2011). From the ‘70s onward, there was instead a sharp increase in the quantity of highly caloric refined carbohydrates and fats – which associated with the occurrence of the epidemic and with technological innovation in the agricultural sectors. Swinburn et al. (2011) have also theorized on these bases that transitions in the energy balance happen in two phases: the “move less, stay lean phase” and the “eat more, gain weight phase”.

While in the next chapters I will review at length some particular mechanisms of environmental determination of habits that impinge both on the intake and the consumption side of the energy balance, it is already clear from this evidence that diet related diseases *are* crucially determined by the environment and personal choices. There was indeed no time for a genetic change to have taken place in the two generations that separate contemporary humans to the obesity-free human populations of our grand-grandfathers. As it is often the case, genetic traits that have been there and silent since thousands of years interacted with new environmental exposures – perhaps in some

cases in the most intriguing way suggested by the “thrifty phenotype hypothesis” – to shift the distribution of individual weights and BMI upward.

We have mentioned above the consequences of the epidemic of obesity in the prevalence of key non-communicable diseases. In detail, there is strong evidence that obesity is associated with type II diabetes and cardiovascular conditions, and laboratory works have reliably replicated these results.

Here I limit myself to a brief review of most recent developments in epidemiology and clinical evidence regarding cancers, which is a more debated issue with lesser firm certainties. Results from large prospective cohort studies (i.e. longitudinal diachronic studies on whole human groups) have shown that, aside from some specific cancers, only a fraction of malignancies can be attributed to *specific* unhealthy food items, namely some colorectal, prostate and breast cancers. This does not show as such that diet is unimportant in the occurrence of cancers, it seems indeed that particular dietary *patterns* rather than single foods (or molecules) are the significant drivers of cancer risk and/or protection from cancers (Trichopoulou et al. 2003). Let us follow the most important steps of these developments in the epidemiology of nutrition and cancer.

An early review of Doll and Peto (1981) estimated that up to 35% of cancers might be due to dietary factors. However, the ground of this first figure remains mysterious and was probably based on biases-prone case-control studies⁴³ (World Cancer Research Fund 2007). Subsequent large cohort studies provided small support to the idea that *specific* dietary factors are associated with very frequent colorectal, prostate and breast cancer – with a more robust claim as for the effect of high consumption of red meat on the risk of colorectal cancer. Similar results have been obtained when studying the protective effects of fruit and vegetables, that were thought on the bases of mechanistic insights to be promising protective agents⁴⁴.

While single dietary factors did not turn out to be as relevant in epidemiological studies as predicted by Doll and Peto (1981), there were instead some stronger results on the link between

⁴³ In a case-control study the causes of a condition are sought *a posteriori* in the personal history of a patient: this is prone to selection biases since researchers might tend to ignore negative results and overestimate positive ones.

⁴⁴ See *infra* next section.

obesity and overweight and malignancies, especially adenocarcinoma of the esophagus, kidney cancer, colorectal cancer (in men), breast and endometrial cancer (in post-menopausal women). This is in line with the general hypothesis that overall diet quality rather than particular carcinogenic food stuffs are involved in the determination of cancer risk. The confirmation of this hypothesis requires further epidemiological work and a move to more mechanistic molecular inquiries.

1.1.4 Protective food

Along with the epidemiology of negatively-impacting risk factors, some dietary items might instead protect from chronic conditions and/or their re-occurrence. The first speculation on this possibility came from puzzling epidemiological observations, chiefly the so-called “French-paradox”: the French have a remarkably low rate of mortality due to coronary heart diseases despite their intake of saturated fats is traditionally very high. Researchers hypothesized that this might be due to the high consumption of red wine among Frenchmen. While a first hypothesis connected the effect with the alcoholic content of wine (Renaud and de Loregeil 1992), it was later discovered that the effect might be due to a class of compounds that naturally occur in plants: phenols and polyphenols (notably resveratrol in the case of grape). In the last two decades, studies on the protective effects of these chemical compounds have flourished and we may illustrate briefly some results focusing on anthocyanins, pigments of red-blue plants that humans consume in relevant amounts (depending on dietary patterns.)

There is evidence that anthocyanins protect against age-related degenerative diseases, cardiovascular conditions and some cancers. Also, they might protect from obesity and diabetes (Tsuda et al. 2003). There is debate as for the exact mechanistic pathway that mediates these effects, however there is evidence that anthocyanins have a free-radical scavenging and antioxidant effect and they might also affect directly cancer-related pathways (De-Xing et al. 2004). While the consumption of anthocyanins might have increased due to the availability of extracts of red and

blue fruits, the availability of these compounds in fruits can be enhanced by genetic engineering (Butelli et al. 2008), thus providing a proof-of-principle for genetically modified plants – based nutraceuticals. While the wider significance for public health of these discoveries requires further investigations, the protective effects of some foods should be clearly added to the complexities of the relation between diets and the outset of chronic conditions.

1.2 The social history of diet related diseases

This section explores the broader social significance of diet related diseases. Bad health is always much more than a mere medical emergency and involves the loss of personal opportunities and substantial social costs. The first part is dedicated to the social stratification of diet related conditions and relies on the literature on the social determinants of health, while the second part reviews some data regarding health costs and the effects on employment and productivity of nutrition associated conditions.

1.2.1 Social inequalities in health

In poor countries where the prevalence of obesity is overall low, the condition is limited to richer segments of the populations, as in the traditional picture of obesity as a “disease of affluence” (Ulijaszek 2007). This however rapidly changes in economically developed country. Poorer people are systematically over-represented among over-weight and obese people in all but the poorest countries, especially among women and the younger. In the case of men, the stratification is less significant or not present, since in men poorer socio-economic conditions might associate with labor in more physically demanding occupations.

If we take education as a proxy for socio-economic condition, we come to know that in Milan 24% of the population without any educational attainment is obese, while only 5% of those who hold a university degree suffer from the problem. Percentages are 13% and 8% respectively for those who completed the middle school and those who completed the high school⁴⁵.

Data are skewed in Italy even geographically, as it is known from other countries (Marmot and Bell 2012). A recent research, “Okkio alla salute”, has pointed out that in poor regions of the south (e.g. Calabria and Campania) the prevalence of obesity and overweight in children is as high as 45%, while in richer regions of the north, it can be as low as 15% (Provincia Autonoma di Bolzano -

⁴⁵ Data from the surveillance system “PASSI”, already mentioned *supra*.

Bozen). The prevalence of the condition correlates better⁴⁶ with poverty rates than with GDP pro-capita or the Gini index of inequality⁴⁷, suggesting mechanisms associated with the kind of deprivation and constraints that are typical of absolute poverty rather than those that are due to differences in status⁴⁸.

Lifestyles are one of the several factors that explain the sharp social differentials in life expectancy, incidence of and mortality from diseases that are characteristic of all countries where epidemiologists have collected data, including those that are relatively more egalitarian from the socio-economic standpoint (e.g. Scandinavian countries). There is an open debate on the impact of lifestyles on the size of social health inequalities (Pampel et al. 2010), however everybody agrees that the underlying drivers of these inequalities must be several and *include* lifestyles.

For example, poorer people live in less healthy environments and face conditions at work and in their social surroundings that are more stressful. There are known biological pathways that link stress response with long-term adverse health outcomes (Brunner and Marmot, in Marmot and Wilkinson 2006), and indeed life-long exposition to environmental risk factors, stress and unhealthy lifestyle are the key drivers of inequalities in health according to the main models of “life-course epidemiology” (Blane, in Marmot and Wilkinson 2006).

“Life-course” models are explanatory tools that describe differential outcomes in health in different socio-economic strata of the population highlighting the persistent feed-backs that link health and socio-economic status. Since there is no single driver that can explain alone differentials in health outcome that can be as wide as 28 years of loss of life-expectancy between top and bottom earner neighborhoods in the city of Glasgow (U.K.), researchers hypothesize that risk factors must somehow cluster together *via* the adverse health *curricula* that characterize poorer people from the infancy. While expositions to dangerous substances and lifestyles were something that could be easily associated with more disadvantaged people, it came as a surprise the discovery that there is a clear gradient of health outcomes even between relatively well-off workers in clerical offices, as

⁴⁶ Personal calculations.

⁴⁷ The Gini index is a common measure of economic inequality. It usually describes the dispersion of incomes – though it can be used to measure the dispersion of whatever quantity across a population. The index takes the value 1 if one person gains the whole income, while it is 0 when the distribution is perfectly flat.

⁴⁸ See Marmot (2004) for an explanation of the difference between the two issues.

revealed in the analyses of the famous Whitehall II large cohort study of the English civil servants (Marmot 2005). This was the main clue that led researchers to propose more refined explanatory models, chiefly that of stress-based response and, later, models that contemplate multiple factors in a diachronic manner. Epigenetic scars due to *in utero* bad nutrition or even to unhealthy behaviors of parents and grandparents (Pembrey et al. 2006) might generate worse health in poorer children, which lead to worse education outcomes. Together with independent channel of inheritance of social disadvantage, this may lead to worse career, exposed to stress and/or to environmental risk factors and, eventually, to chronic conditions in adulthood, perhaps mediated by unhealthy lifestyles.

Social epidemiologists may tend to downplay the role of lifestyles in the determination of social health inequalities because they favor distal interventions and fear a public response that may “blame the poor” for their own predicament. While this attitude may be strategically justifiable in the public arena, here there is no need of avoiding the issue. One of the results of this thesis will be - I hope - to dispel these justified worries of politically engaged social epidemiologists. The policy consequences of a reasoned discussion regarding the impact of lifestyles on health need not be a moralistic condemnation of smokers and bad eaters, quite the contrary indeed. Choices - I will argue - are less morally significant than it is normally thought, and so lifestyles can be considered one among the other of the several environmental risk factors from the point of view of public health officials. The question of whether we should tackle individual behaviors or more distal determinants of health is a lot one of efficacy, i.e. which policies serve better our social and medical objectives.

1.2.2 Effects on economic activity and costs

We can employ three instruments to answer the question - pertaining economic studies - whether better health leads to greater wealth, either for an individual or a society. We may want to study the health care costs associated with chronic diseases, study the micro and macro-economic costs

associated with these epidemics and, finally, study quite directly welfare issues by measuring the value that people attribute to better health. Let us have a look to these three instruments in the case of obesity and diet related diseases.

The effects of diets on diseases suggest that major economic effects of unhealthy food choices will regard health costs. This has been studied in several countries, focusing on the expenditure in health-care. Sassi (2010) reports data which estimate within a range of 1% to 3% the impact of diets on total health expenditures. The figure can be much higher for the United States, in line with the data regarding the higher prevalence of obesity there: some studies even estimate that 10% of health expenses in that country are due to bad diets. Individuals who are obese will spend on average 25% more in health than normal-weight people. There is obviously an issue of time-lag in these results: since the epidemic is quite recent and health effects will ensue mostly from the middle to the long term, it is likely that future figures will be amended upwards.

The issue is however quite complicated because the figures are gross and do not include possible reductions in costs due to lower life expectancy of the obese. While most studies show that obese people will have higher lifetime costs, there is evidence that after the age of 80, when life expectancies of obese and non-obese diverge, the latter will be more expensive than the former (Sassi 2010).

Further social consequences are to be found among the effects of diet related diseases on individual life courses, which might affect households and society at large. The link between socio-economic status and health discussed in the previous section can indeed run in the other direction as well, as anticipated in the life-course feed-backs based model. Let us look at some pathways that illustrate the effect of obesity on employment, wages, productivity, and education.

There are conflicting results regarding employment and obesity, with some studies hinting to a negative effect, especially in women. This can be due to discrimination, either founded on mere prejudices against obese people or statistical discrimination⁴⁹. Also, effects on employment might

⁴⁹ Statistical discrimination is the selection of individuals (e.g. for hiring) on the bases of irrelevant features (e.g. gender, ethnicity) that might however be correlated with some features that are relevant for productivity, sometimes for unjust causes.

be due to personal restraint from job search, perhaps mediated by the well-studied effect of obesity on self-esteem (Averett and Korenman 1996).

In the case of the impact on wages, several studies have shown an obesity penalty - in one case as large as 18% (Lundborg et al. 2010), and larger effects in higher occupational positions. The effect seems to be limited - or anyway bigger - to women. Sassi (2010) proposes that the effect on wages can be mediate by the difficulties in finding employment, with obese people settling for lesser salaries, as in standard models of the effects of unemployment on salaries.

As for the consequences on productivity – that may be at the bases of statistical discrimination against the obese, there are several studies that record the effects of obesity on absenteeism or sick-leaves. Early studies in the US indicate that obese men and women are twice more likely to go into sick leave and these results have been replicated in European countries (Sassi 2010). Obviously this does not justify discrimination, but it is obviously a reason of concern – especially because wage and employment disadvantages may add up to further disadvantages independently due to lower social status, which we have seen above being associated with a higher prevalence of the condition.

As for the measure of the social welfare based on actual judgments of people, Suhrcke et al. (2006) proposes to look at the monetary value that people attribute to gains in life expectancy between 1970 and 2003 in high-income countries, which is largely attributable to ameliorations in the management of chronic diseases. If we could apportion the causal contribution of diets, we could measure the potential gain (and the actual loss) in welfare that is due to dietary conditions. The aggregate results show that, in the US, the value attributed to better health – as measured in trade-off questionnaires⁵⁰ - in monetary terms far outweighs health expenditures (29% to 38% of US gross domestic product). These results can be extrapolated to try an estimate of the value of the health lost to dietary conditions.

⁵⁰ Trade-off questionnaires are common devices in econometrics studies that are employed to assign a monetary value to the utility of certain events for the sake of comparison between outcomes of different nature. See Hausman and McPherson (2006), esp. ch. 8, for a critical analysis of monetary-based measures of welfare.

1.3 Policy response: what has been done?

In this section I will mention some prototypical health policy that can be implemented against dietary conditions. As we have seen above, any modification of the food system will have downstream consequences regarding dietary regimes of entire populations: it is thus difficult to single out “health policies” from the *mare magnum* of public policies regarding prices, agriculture, transportation, value added taxes, retailers, urban planning, the health system, etc. However, I will be mainly interested in two kinds of interventions: (1) public health preventive policy that is justified on the bases of dietary diseases; (2) amendment of existing health systems adopted with the specific purpose of coping with diet related diseases. They correspond to the two section of this brief subchapter.

1.3.1 Public health policies and food

There are several policies that have been evaluated, even in controlled trials, and can boast a good degree of evidence as for their effectiveness in ameliorating the epidemic of obesity. Some of them are indeed even quite simple and cost-effective, other are instead invasive and/or require substantial investments. In any case, no measure is going to be effective alone, as it may have been the case in other cases of public health emergencies, and a “systemic approach” is recommended by all professionals (Gortmaker et al. 2011). Here we simply list some of the measures that have been reviewed in this latter work, adding a brief comment on their nature and their effectiveness.

(1) Food and beverage taxes. Fiscal measures have been introduced in several countries (e.g. Denmark, US), most often on foods high in fat content or on sugary beverages. The measure is obviously cost-effective for the public sector (i.e. losses in revenues due to decreased consumptions aside), though there is not as yet conclusive evidence that the measure is effective.

(2) Bans (i.e. trans-hydrogenated fats). Some products can be simply forbidden, as it is done in the case of some chemicals on safety grounds. It has been argued (Lustig et al. 2012) that sugary

products should be treated equally to poisons, given their impact on health – but as yet the bans have been applied, with substantial debate, only to trans-hydrogenated fats in the US. Bans of excessive size portions rather than foods have been also implemented.

(3) Traffic-light-labeling. Several countries have introduced consumer-friendly labels that signal in a visually obvious way whether the purchase will be healthy (and thus can be made on a regular bases) or not (and thus should be made only rarely). There is not enough evidence as for its effectiveness.

(4) School-based programs. These are a group of interventions aimed at reducing television viewing, increasing physical activity, eliminating sugary drinks and educating children at good diet. They can be targeted at specific groups or at-risk individuals. They are mostly cheap programs and they deserve attention because they have proven effective in controlled trials.

(5) Gastric-banding. This is a medical procedure which does work (best level of evidence in Gortmaker et al. 2011), but it is obviously invasive – so it can be considered only for severe cases rather than for the common problem that we are considering.

(6) Dietary guidelines administered by doctors. General practitioners are at the forefront of the fight against the epidemic. The problem of guidelines is obviously compliance, although a wide dispersal of medical information, perhaps backed by the authority of medical staff, will have major impact on the epidemic.

1.3.2 Health systems reforms and diet related diseases

Along with preventive public health policies targeting the population, an important topic of policy discussion stemming from diet related diseases depends on issue of sustainability of the health systems in the face of growing costs of chronic diseases.

Strain on the organizations of the health systems might have different origins, from the technology-intensity of medical services against chronic diseases, to the aging of most populations. Lifestyle dietary factors, however, are also a key driver of the epidemic of NCD, and as such some re-calibration of health systems might be implemented as a consequence of them. This belongs to a

general tendency of amendment of social services in the face of “new risks” due to personal choices that will be the object of critical scrutiny in chapter 4.

In particular, amendments to the universal regime which is typical of several European health systems (e.g. the Italian “Sistema Sanitario Nazionale”) might be conducted in the name of sustainability. They might consist in increases in fees for services, the exclusion of some piece of health care from public provision and even a move toward privatized forms of insurances. While none of these large-scale reforms will be obviously based on single issues as lifestyle risk-factors, a treatment of the latter subject would not be complete without a thorough normative discussion of these measures, given that they are those of most impact: this is conducted in chapter 3 and 4.

2. Paternalism.

When choice is bad

Liberals are engaged in a struggle against paternalism at least since Locke (2003 [1690]) and the charge of paternalism is a common critique of health promotion campaigns, policy and laws. In this chapter, I explain what paternalism is, why liberals dislike it and which forms of liberal antipaternalism apply to the case of public policy against diseases related to nutrition. There are three logical steps of the argument. Firstly I distinguish two broad families of antipaternalist arguments: deontological and welfarist, centered respectively on the intrinsic value of personal liberty and its instrumental value for personal well being. Secondly I claim that liberty based antipaternalism is implausible both generally and more specifically in public (health) policy. Thirdly I argue that welfarist antipaternalism can be abandoned in favor of intervention whenever there is evidence that personal decisions tend to be *poor*. This is the case in dietary choices, where most people are bad deliberators, or so I will argue.

This material is divided in three subchapters. While 2.1 is an introduction that prepares the main conceptual tools for the following discussion, 2.2 is the *pars destruens* that contains a critique of the deontological liberty based tradition of antipaternalism. The discussion in 2.1 and 2.2 is focused on public policy in general and public health in particular rather than specifically on food policy: the purpose is indeed to reconstruct two approaches to the issue of paternalism, deontological and welfarist, and defend quite generally my preference for the latter. 2.3 is instead the *pars construens*: I explain why welfarist antipaternalism is worrisome in public health and what kind of things can be said on behalf of restrictive food policies starting from specific empirical evidence regarding nutritional choices. There I will focus more in detail on food in order to explain the practical relevance of the approach that I defend.

The consequence of the argument presented in these chapters is the following: while the allegation of paternalism is hardly a conclusive critique against a public health policy, law or campaign, the latter should be designed as to avoid self-defeating harmful consequences for their intended beneficiaries, those that are highlighted by the welfarist antipaternalists. In the case of bans or costly disincentives against unhealthy foods, particular attention should be paid to avoiding harms to good deliberators. This allows for a wider space for paternalist policy than it is usually assumed. I explain why this proposal is not unacceptable for antiperfectionists that insist on pluralism

regarding preferences and values and how we could address some forms of inefficiencies due to the heterogeneity of human populations as for decision making capabilities - heterogeneity that might jeopardize population-wide policies.

Throughout the chapters, I will touch upon several wider topics of political philosophy such as the interpretation of anti-perfectionism, the value of personal sovereignty and the theory of well being. While the purpose of the chapter is *not* to intervene in these debates, their discussion in a narrower field may contribute to the broader theoretical discussion. On the other hand, several principles will be taken for granted, especially the relation between political authorization and consent in section 2.1.1 and the skeptical interpretation of anti-perfectionism in section 2.3.1. The only possible argument that I can present on their behalf is their analytic fruitfulness in the current discussion.

2.1 The varieties of antipaternalism and public health policy

In this introductory section, I will explain what paternalism is (2.1.1), assess whether health policy against diet related diseases can be considered paternalist (2.1.2), tell apart carefully two general concerns regarding paternalist actions (2.1.3) and review previous treatments of the subject in prescriptive discussions regarding health policy (2.1.4). The main piece of the general argument that I discuss here regards the distinction between liberty based and welfare based antipaternalism, which I will treat respectively in 2.2 and 2.3 afterward. I also argue here that at least some pieces of health policy must be considered paternalist and that several previous proposals did not pay enough attention to the different *varieties* of antipaternalism, i.e. the different sort of values and principles that can be employed against paternalistic actions, focusing too often on one or the other version. From that point of view I will then try an evaluation of paternalism in food policy.

2.1.1 The definition of paternalism and its relevance in the case of food policy

Gerald Dworkin (1972, 2010) has provided the definition of paternalism that is commonly employed in contemporary normative theorizing. I will simply assume its adequacy: that is, Dworkin's definition captures most of the cases that are identified pre-theoretically as instances of paternalism and highlights the normative features of paternalism that are most frequently addressed in moral inquiry, i.e. Dworkin's definition is a satisfying *explication* of paternalism. All and only those things that fit the following conditions count as paternalistic:

- (1) interferences with the liberty and/or autonomy of an individual x
- (2) without the consent of x
- (3) for the sake of x's interests, good, welfare, etc.

Some alternative definitions employ the notion of "interference with choices" in the first condition, but they are all roughly equivalent: we can safely ignore them and let for the moment the first condition somehow vague⁵¹. Under Dworkin's conditions, rescuing a passerby on a bridge from his own suicidal effort, prohibiting a drunken friend to drive its bicycle by locking it to a fence and enacting laws that disincentive smoking for the sake of smokers' health are all paternalistic actions. By itself, Dworkin's explication does not entail any prescriptive conclusion, as it may be clear if your moral assessments of these three cases are different: if an act is paternalist in the Dworkinian sense, it is not as such neither ethically proscribed nor recommended.

Dworkin's definition singles out two sources of prescriptive attrition, the *liberty/autonomy* that gets interfered in a paternalistic act and the *beneficent* intention of paternalists. Also, it names a process that would render non-paternalistic a beneficent interference: *consent* to the interference.

⁵¹ See Feinberg (1974) and Gert and Culver (1976) for other definitions.

While the key conditions are (1) and (3) regarding beneficence and autonomy, an independent condition for lack of consent (i.e. condition 2) is needed because there might be cases where, despite the presence of consent to interference, the latter still counts as violation of autonomy and/or liberty but it is *not* an act of paternalism. These are most likely to be situations where there is a delay in time between the act of consent and the consented interference⁵². Consider the following two different cases. If I consent to my dentist to operate on my teeth, this counts as harmless violation of physical integrity but scarcely as violation of liberty/or autonomy: an independent condition for lack of consent appears not to be needed because lack of consent *seems* to entail definitionally an assault to autonomy here. Yet if a friend asks me to prevent him from driving his bike if he gets drunk, when I lock up his bicycle at the end of the evening I do have his consent but I am still violating his liberty/autonomy if he complains - yet this should not count as paternalism. Violation of autonomy and lack of consent are two different *phenomena*. Some might want to say that, if the friend complains, I no longer have his consent for locking up his bike. Yet the correct description of the case seems to me that I still retain his consent despite his alcohol-driven second-thoughts (perhaps because alcohol-driven retrievals of consent are void). If this is so, my act does not count as paternalistic given the condition (2). Other cases that we may want not to call paternalist are cases of gift-giving. Though in certain respect gift giving may interfere with liberty and autonomy for beneficent purpose, what makes them uncontroversial is the fact that receiving a gift is to be consented to count as such. Adequacy of the definition requires that it is not too broad: a good definition of paternalism restricts the extension of the concept to cases that are at least *prima-facie* problematic, and so contain the clause (2) in order to narrow the focus to issues that are prescriptively puzzling. In this context, however, nothing hinges upon this particular issue and I retain the independent condition for consent for instrumental reasons: it is very useful in the context of discussion of paternalism *in public policy*. While inter-personal consent is relatively easy to spell out, the relation between the individuals that are targeted by a policy and their consent to that policy is mediated by institutions as voting polls, representative and legislatures, and deserves independent attention⁵³.

⁵² See Husak (2009) for complete treatment of the subject.

⁵³ See *infra* section 2.1.2.

Dworkin mentions both liberty and autonomy in the explication of paternalism: the two concepts should be interpreted in their most ordinary sense in moral philosophy. Liberty is liberal negative freedom: I am not free in this sense if I am *constrained*, physically or otherwise. There are other understandings of liberty in moral theory but they need not enter the debate on paternalism. For instance, Berlin (1969) has contrasted the negative freedom *from* physical and legal constraints and the positive freedom *to* pursue meaningful aims within that space: “substantial liberty”. More recently, republicans have developed an account of liberty as non-domination, according to which someone is free in the republican sense if and only if he is not threatened by *arbitrary* interference (Petitt 1997). While republicans might construct an argument against paternalism insofar some paternalistic actions could count as *arbitrary* in the republican sense⁵⁴, both understandings of liberty are not pertinent in the *analysis* of paternalism, which deals straightforwardly with cases of *interference* (that is, constraints). Also, positive freedom in the sense of Berlin is akin to autonomy, and so it is included at the end of the day in the definition we are employing.

Indeed, over and above interference, another feature of paternalism that Dworkin brings to light is the substitution of personal preferences and plans with aims imposed by beneficent third parties: violation of autonomy. The most common idea of an autonomous choice is that of *authorship*: x has chosen autonomously to do y if doing y is connected *in the appropriate way* with x plans, preferences, desires, perhaps personality. This is valuable and gets violated in some instances of paternalist acts: this is why Dworkin mentions autonomy along with liberty in the condition (1).

The assessment of the moral appropriateness of paternalism is often conducted by induction from intuitively acceptable cases: the moral casuistry of paternalism allows the extraction of the fundamental features of paternalist actions that make them morally required, acceptable or prohibited. This is why sub-categories of paternalism based on these features are so important in the literature (Feinberg 1974, Dworkin 2010). I will proceed in a different way, tracking the general philosophical motivations of antipaternalism⁵⁵, and discussing their relevance for the case I am discussing. This strategy is partly due to my skepticism with some conceptual distinctions that sustain the strategy from casuistry, which I explain next.

⁵⁴ See *infra* section 2.1.4.

⁵⁵ See *infra* section 2.1.3.

To begin with, different forms of paternalism can be distinguished from the point of view of the agent acting paternalistically, e.g. we may want to tell apart paternalism in inter-personal relationships and paternalism in public policy. Among the latter cases, Feinberg (1974) has distinguished paternalistic criminalization and paternalistic non-criminal regulations, as fiscal policy (e.g. when employed as disincentive against dangerous consumptions). These distinctions are obviously important in the normative discussion: paternalism can be a recommendable sign of friendship in inter-personal relationships while being an intolerable violation of personal integrity if it originates from public authorities. This is because the aims and appropriate limits of actions in inter-personal relationships and public policy are, in general, different. For instance, among public policies, some instruments can be employed only for very specific purposes, e.g. the criminal law, thus being unsuitable for paternalistic intervention. In this chapter on public health and nutrition, all relevant cases fall in the category of non-criminal public regulations: bans, taxes, perhaps certain form of aggressive health campaigns⁵⁶ are non-criminal regulations enacted or implemented by public authorities. We can forget for the purpose of this thesis the other categories.

A distinction that is thought to make most prescriptive work is that between hard and soft paternalism, which again has been firstly described by Feinberg (1974). In cases of hard paternalism, the action that is prevented for beneficent reasons is a *voluntary* choice that an agent has taken with reference to his desires and a roughly adequate factual knowledge about his surroundings. Soft paternalism is instead interference with actions that should be considered less than voluntary and/or mistakenly taken against a background of major factual ignorance⁵⁷. Feinberg (1974) argues that the second form of paternalism is morally appropriate and perhaps recommendable (though not in the criminal law): this is because non voluntary choices are regarded as *improper* expressions of personal autonomy. The verdict depends on extrapolations from cases that count intuitively as acceptable paternalistic interferences: beneficent guidance in the case of parental upbringing or interference in cases of temporary (e.g. drugs) or permanent deliberative deficits. In both cases, choices lack the appropriate voluntaristic dimension that

⁵⁶ See *infra* section 2.1.2

⁵⁷ The *proviso* regarding factual knowledge is necessary to account for cases of choices that are voluntary but nonetheless grossly inadequate: if a friend picks up for eating a poisonous berry while thinking it is edible, the interference has a very different nature of cases as the rescue of a suicide who deliberated at length about his choice.

connects one's choice with one's personal individuality and therefore paternalism is allegedly admissible.

In section 2.2.1, I will argue that the Feinbergian assessment of the two cases does not depend on voluntariness or lack thereof as such. Rather, it depends on considerations about personal well being and the ways in which what he calls "voluntary" choices are associated with the pursuit of personal interests and plans. For the moment, I sketch an argument against the usefulness of this famous distinction in the cases that we are dealing with. Indeed, the distinction between voluntary and non-voluntary actions, and hence that between hard and soft paternalism, cannot make here - as in the case of certain attributions of responsibility⁵⁸ - any important normative work. It is metaphysically weak and too disputable to be convincing in moral reasoning regarding lifestyle choices.

The distinction between hard and soft paternalism depends conceptually on the notions of "will", "choice" and "autonomy". While the meaning of the three concepts is reasonably clear in several cases, the boundaries of their application pose important philosophical challenges. To take the cases above: how much impaired should my cognitive abilities be in order to fail a test of voluntariness? How old should a small child be in order to count as a proper deliberator? Is an impulsive decision non-autonomous in an otherwise reflective person and autonomous in someone who tends to bravery? I do not deny that for practical purposes these distinctions should be made (e.g. in legal contexts), yet any choice will be philosophically contentious. Continuous philosophical disagreement might be due to errors, prejudices or epistemic failures, yet we cannot deny that perhaps there is no fact of the matter that might decide the issue: in border cases, whether something is an act of will or properly autonomous might be simply underdetermined by *reality*.

Scheffler (2005) has argued that compatibilist metaphysics proves exactly the latter point: autonomous free choices are just a segment in the continuous line connecting relatively free and relatively constrained choices, rather than metaphysically *sui generis* phenomena. Compatibilism is a metaphysical theory about free-will that preserves the notion of free choices⁵⁹ while denying that choices are an independent category of causal forces (Dennett 1984). In any single instance of

⁵⁸ See *infra* section 3.2, especially 3.2.3.

⁵⁹ In other words: it is non-eliminativist about free-will within a naturalistic world-view.

choice, there will be some factors that determined its occurrence. These factors will be more or less related with personal plans and aims and this is relevant for deciding whether they are free. For instance, perhaps we should not call autonomous decisions that are taken without long deliberation because they cannot be sufficiently linked with individual arrangements and plans. Yet distinctions between free autonomous and constrained non-autonomous choices are not nearly as metaphysically fundamental as we thought – at least if compatibilism is correct, as we have all reasons to believe if we embrace a naturalistic worldview. While Scheffler’s further observation against basing a fundamental prescriptive distinction on shaky metaphysical foundations is disputable (e.g. it seems a sort of naturalistic fallacy), I will make a simpler point regarding moral theory, the following.

I argued that in some cases there might be no independent and conclusive *descriptive* standards to assess whether one choice is autonomous or not. At any rate, we expect that there are such problematic cases if we are compatibilists: after all there is no *sui generis* causal power of the will that labels them as “free and autonomous” choices. This means also that distinctions will be possibly made for prescriptive reasons: partly on the bases of general *moral* standards, partly on the bases of relevant descriptive facts, partly on the bases of crude intuitions about the case at stake. This is not a case where *via* reflective equilibrium⁶⁰ we can reach a stable standard that can be applied neatly to new cases depending on whether they are cases of voluntary choices or not. Perhaps this is possible where cases are clear (e.g. infants), but it is not a viable strategy for dubious cases: the distinction between hard and soft paternalism is prescriptively *void* in a very large grey area encompassing most decisions of (adult) cognitively normal human beings, simply because these cases lie along a continuum. These are however exactly the cases that we are dealing with here, and so the distinction soft-hard paternalism cannot make any substantial work in this context.

The take-home message so far is the following: there is no particular reason to approach the prescriptive problems of paternalism by casuistry and complex taxonomies because controversial

⁶⁰ The “methodology” of reflective equilibrium is typical of certain moral thought: moral “intuitions” are simultaneously used as data and revised in light of moral theory. The aim is the achievement of coherence between moral data and theories that reconstruct our moral life – see also Rawls (1971) for a famous description of the method.

cases will remain controversial within that framework. This (tentative) conclusion suggests approaching the debate on paternalism from another perspective, that of the general political and moral motivations underlying antipaternalism. Why are philosophers concerned with paternalism in the first place? An answer to these questions will permit to assess whether their moral worries are pertinent to the case of food policy. Before going into that, we should however answer a preliminary question: do public health measures against nutrition-related diseases count as paternalistic policy in the Dworkinian sense? This is the topic of the next section.

2.1.2 What is a paternalist policy?

The three conditions of paternalism according to Dworkin are: (1) interference with liberty and autonomy, (2) lack of consent, (3) welfarist intention. Let us look for each of them whether they are satisfied in public health policy in general and food policy in particular.

Interference with liberty and autonomy

The first condition is relatively uncontroversial in the case of health prevention. Some public health measures count as interference with liberty straightforwardly: bans are a paradigmatic case and taxes are also leverages that aim at modifying choices, which counts as interference by any definition of interference. The case of informational campaign is more complicated: apparently, more information cannot count as interference, and in fact could promote autonomy. Indeed, people can construe their actions more coherently with their interests if they possess the kind of information that is necessary to connect different alternative choices with the pursuit of their aims. In this case, if people knew how risky certain behaviors were, they would adapt their lifestyles more effectively to their preferred level of risk. In other words, more information must be at least

loosely good for people: if they use it, their welfare will increase, if they do not, nothing will change.

Yet some health campaigns are more than a simple delivery of neutral information (under any definition of neutrality). For instance, gruesome depictions of the consequences of smoking for lungs exploit common psychological mechanisms to make a certain choice more costly from the psychological standpoint. A picture of a lung cancer is much less informative and hence less autonomy-promoting than epidemiological data, yet it can be more effective as disincentive. This is very close to fiscal measures that make a product more costly in monetary terms, if we compare the degree of interference involved in the measure. So we can conclude that many policies, included policies that apparently do not interfere with liberty, meet the first Dworkinian criterion.

Welfarist aims

The third Dworkinian condition is puzzling if we try to evaluate its application in cases of public policy. To begin with, the idea of a beneficent *intention*, aim, or objective is clear in cases of inter-personal relationships but is much less so in public actions. In inter-personal cases, the mental states of the beneficent are the place where to look for intentions and purposes: I am behaving paternalistically if I interfere with the choice of somebody with specific beneficent aims *in mind*. Whose mental states should be looked at in cases of publicly enacted regulations? Those of each participant to the political body that approves a ban on trans-fats? Those of the members of the technical committee who proposed the measure? Those of the public who authorized some legislators to make public health laws? All of them? None?

The issue may be not as complicated as it seems. Since every public decision is normally accompanied by a thorough body of justifications, for instance in the proceedings of the legislature that approved a law or in the papers and reports that are attached to the history of a piece of policy, we may try to look into that material. There is however a major obstacle to that strategy: for each

policy there can be *several* justifications and *rationales*, and indeed it is ordinarily positive when this is so.

For instance, taxes on sugary drinks can be introduced to fight obesity, to decrease health costs, to collect revenues, etc.: do sugar taxes still count as paternalistic if the good of the would-be drinkers was mentioned among other powerful arguments? If paternalism is inappropriate, does this count *against* sugar taxes and should be weighed *against* the implementation of the policy? The latter question certainly goes too far, for it would be amusing to argue that a well-motivated non-paternalist policy should not be implemented because it has the *drawback* of preventing self-harm as a side-effect. Yet it is at this point mysterious why this is puzzling: if antipaternalism is correct, this strong intuition must be retained.

A proposal to address this riddle that we can easily dismiss is the following: the intended aim of a policy is the objective that is supported by *the best argument* in its favor. This proposition has an unintended consequence: nothing counts as paternalist if antipaternalism turns out to be correct (i.e. if paternalistic intentions never count as justification for actions), for there could not be any good paternalist argument as a consequence and - *a fortiori* - there could not be paternalist arguments that were better than other arguments, except perhaps in cases of *purely* paternalist policy. In brief, this approach would be clearly analytically useless in discussions about paternalism: if accepted, there would not be any paternalistic policies in case antipaternalism turns is the correct view. This is as close to a contradiction as it can go in moral philosophy.

Grill (2012) has proposed an answer to this puzzle that is clearly superior to previous strategies: antipaternalism is just the prohibition of employing paternalistic arguments in favor of a policy, not a ban on paternalist policies *as such*. He argues that antipaternalism is a *constraint on reasons*, rather than a ban on certain activities and policies. From this proposition follows that every policy that has paternalistic effects is still recommendable if there are independent moral arguments (i.e. non-paternalist arguments) in its favor. Preventing self-harm is certainly not problematic *as such*, but becomes so when it is the only reason for implementing a liberty-limiting policy. This principle is after all *literally* the harm principle in Mill (1991 [1859]), which set the foundations for the contemporary discussion on paternalism: the famous principle speaks about acceptable *reasons* for

interference rather than about acceptable *interferences*. In this reading, paternalism is thus *a kind of moral and political justification* rather than a form of action. This seems to me entirely satisfactory and many public policies are paternalistically justified in this sense.

A further objection against the application of the third Dworkinian condition (beneficent intent) is related to the identity of the beneficiary: paternalism is interference with *x for his own benefit*, but in case of public health, *x*'s benefits might occur so far in the future that perhaps *x*'s future self can be reasonably considered a different person⁶¹. If future selves are indeed different selves, public health interferences cannot be considered any longer paternalistic: they are simple cases of prevention of harm to others. Even assuming that the revisionary theory of inter-temporal personal identity that underlies the objection is correct, the objection simply moves the normative friction between respect for autonomy and beneficence to the clashing interests of different people: current selves have interests in not being interfered, while future selves have (future) interests (in the case of food choice) in not being at higher risks of chronic disease. As such, the existence of a clash of interests between parties does not show that harm is done by one of the party (*a fortiori*, wrongful harm): hence the objection rephrases the core normative issue of paternalism in different terms with no *prima-facie* theoretical gains, e.g. in terms of clarity. I conclude that we ought to reject the objection: it does not add anything to the resolution of the debate while paying the high price of committing to an unorthodox view of personal identity.

Lack of consent

The condition regarding lack of consent poses further difficulties. Again, inter-personal consent is *relatively* straightforward⁶² and at least there are cases in which it is reasonable to describe interference as consensual, for instance in the relationship between surgeons and conscious patients undergoing surgery. Yet the case of public policy is more complicated: if there is consent on the

⁶¹ Giovanni Boniolo (personal communication).

⁶² More precisely: there are clear-cut cases of consent or lack thereof in the inter-personal case. There are of course hard boundary cases even in inter-personal situations.

part of the public to a policy *p*, either it must be assumed counterfactually (i.e. *x would* have consented to *p* upon explicit request), or it is implicit in some procedure of political authorization that connects *each* member of the public with the policy in question. Both horns of the dilemma are problematic and I will argue that *therefore* public policy is generally non-consensual in the sense required by the condition (2) of Dworkinian paternalism.

Counterfactual consent is not alien to political theory⁶³ but, whatever the general merits of this delicate notion, it does not fit the case at stake. To assume that *x* would have consented to a specific policy, we should at least claim that there are good reasons to implement that policy and that *x* would agree that they are good reasons. It is obvious that this notion of consent cannot play any role in discussions about the soundness of policy justification, for it would be question-begging. This is the same kind of problem that was posed by the “best argument view” of the objectives of policy *vis-à-vis* antipaternalism. Here, if paternalist considerations are viable justifications for public actions, then we should assume consent: therefore, under the Dworkinian definition, nothing counts as paternalism since condition (2) cannot possibly be met. From this I conclude that either we should not employ the counterfactual consent interpretation when trying to apply Dworkinian paternalism to public policy or we should suspend the judgment on whether paternalism is appropriate and assume that condition (2) is not met in cases of liberty-limiting beneficent actions against self-harm, for the sake of discussion. In short, the counterfactual interpretation of consent might be coherent but it is analytically useless for the current debate.

The alternative proposal was the idea that political authorization entails some form of consent to political decisions. We cannot obviously enter the debate for the purposes of this section: for each form of political authorization relevant to public health, we would have to assess whether or not it entails consent. Prevention against nutrition-related disease has been implemented by governmental acts, legislatures, *referenda*, etc. and for each of these institutions we would have to assess whether they transmit the relevant form of consent from the citizenship to the policy output in the light of theories of political representation and democracy.

⁶³ Typically in liberal contractualism, where contracting parties do not express explicitly their consent - for obvious reasons.

Yet we can analyze here for the sake of completeness a specific case that might arise in discussion about paternalism: a majority that want to bind *itself* to a self-constraining measure. This is also useful to highlight the obstacles that anybody supporting the “consent from political authorization” view would face⁶⁴.

Consider a population in which a majority of people is in favor of regulations that prevent self-harms. The members of the majority want to bind themselves because they are aware of their weaknesses, as Ulysses approaching the land of the sirens: the binding policy is a consensual pre-commitment against the dangers that could ensue from their own free choices. The intent is beneficent but self-directed, hence it is not paternalistic because the condition (2) about lack of consent is not met: they are rationally endorsing a self-limiting measure. Yet the policy would apply to a minority that dislikes any form of binding and is not ready to consent, hence the policy is paternalistic because condition (2) *is* met for the member of the minority, but of course the policy cannot be both paternalist and not paternalist. What is the correct interpretation of this predicament in terms of satisfaction of condition (2) about lack of consent?

I argue that the condition (2) must be met in this case: the policy lacks the appropriate form of consent and therefore counts as paternalist. In fact, to claim the contrary, we would have to recur to a group-level version of consent, in which majoritarian forms of political authorization extend to the whole group the consent actually given by the majority of individuals only.

This is however a far-fetched conception of what political authorization can do: it interprets the very *participation* to the process of authorization as a transfer to the group of the individual capacity to consent. This is implausible: the whole point of consent is *individual* authorization, my consent transforms the nature of acts that are done *upon me*. Granted, some acts that are done upon me without my consent are *legitimate*, perhaps because they descend from an appropriate form of collective political authorization on the part of the public or perhaps for other reasons, yet it would be misleading to claim that I am *actually* consenting, as if the group-level consent overrode my own judgment. Legitimacy, in general, is not consent: I do not consent to be put in jail simply because public authority has legitimately condemned me to a prison-term after burglary. The

⁶⁴ A similar case is discussed in Grill (2009).

Hobbesian alternative maintains that political authorization in the form of participation to the political processes equates to giving up the capacity (not) to consent. Notice that this claim is also poorly suitable in discussions about paternalism. If Hobbesianism (so to say) is correct, liberty-limiting beneficent policies are not a *sui generis* category of action that requires justification, but simply a measure that must be evaluated from the point of view of the purely procedural legitimacy of its enactment. I conclude that public health policy meet the condition (2), lack of consent, at least whenever it is less than unanimously accepted. After all, these are also the cases that deserve attention.

In this section, I argued that preventive health policy in general can meet the three conditions that were fleshed out by Dworkin (1974) to describe paternalism: interference with liberty is quite uncontroversial and is met even in cases of aggressive informational campaigns, the beneficent intention is to be identified among the several justifications for public health policy (and expunged if antipaternalism is sound), and lack of consent is instantiated whenever a policy is not accepted truly unanimously in the target population. In the next section, I will discuss what is wrong with paternalism in general and how these worries apply to the case of public health.

2.1.3 Two kinds of liberal antipaternalism

There are two different, distinctly liberal, concerns about paternalism, one is welfarist and consequentialist, the other is deontological and pertains to the intrinsic (i.e. welfare-independent) value of personal liberty. Welfare consequentialist antipaternalism is associated with the name of Mill (1991 [1859]) and it is a widespread working assumption of welfare economists. Deontological antipaternalism has been defended by libertarian authors in the Lockean tradition (e.g. Nozick 1974) and by Feinberg (1974). Authors that are not explicitly antipaternalist also signal the essential tension between the protection of liberty/autonomy and beneficence, especially in medical ethics (Beauchamp and Childress 2001).

The consequentialist critique of paternalism is that paternalism is self-defeating or potentially self-defeating. The deontological critique of paternalism is that paternalism amounts to a violation of the personal sphere of liberty for reasons that are not serious enough to justify such a *vulnus*. The crucial premise of the consequentialist critique is that people are for the most part the best arbiters of their own interests, a descriptive claim. The crucial premise of the deontological critique is that interference is a bad as such and that only extremely serious reasons (e.g. harm to others) might override the prohibition of interference, a normative claim. Let us consider the two families of antipaternalism in turn: while in this section I will describe the overall philosophical inspiration of the two traditions, in the next two chapters I will be more analytic and comment their theoretical merits and their application to public health.

Deontology and the sphere of personal liberty

The concern with the protection of an inviolable sphere of personal liberty characterizes most liberal thought: liberal negative *rights*, those that protect negative freedom of individuals, are inviolable protection of individuals that trump other considerations for interference (Dworkin 1977). In particular, the protection of the personal sphere *from the power of public authority* is a central tenet of liberalism and therefore involves the case of public health policies quite straightforwardly. Extreme versions of liberalism (i.e. libertarianism) limit the appropriate role of public authority to the mere protection of individual negative rights and deny that beneficence is a proper aim of *any* legitimate political action. The problem of paternalism is no less that it exemplifies the kind of political action that is foremost prohibited by these theories: interference with liberty for beneficent purposes. Interference with liberty is allowed only to protect third parties, that is, third parties' rights. The case of avoiding self-harm is not contemplated and hence

the possibility of self-harming belongs to a truly inviolable sphere of personal sovereignty (Feinberg 1974)⁶⁵: it is a right whose violation is *unjust*.

A striking feature of this version of antipaternalism is its extreme *non-consequentialism*: perhaps everybody is extremely worse off as a consequence of the prohibition to interference, but this simply does not count as a reason for violating personal rights. I call this family of antipaternalism “deontological” because it relies on liberty-protecting principles and disregards welfare-affecting consequences. The moral foundation of deontological antipaternalism is a disputed topic: it broadly descends from a suspicious attitude toward public powers and an enormous weight given to rights and the value of individual self-ownership, especially in libertarianism (Nozick 1974). This is explicitly the foundation provided by Feinberg for its brand of antipaternalism:

The life that a person threatens by his own rashness is after all his life; *it belongs to him and to no one else*. For that reason alone, he must be the one to decide—for better or worse—what is to be done with it in that private realm where the interests of others are not directly involved” (Feinberg 1974, pg. 59 - italics mine).

Starting from self-ownership, any interference with the personal sphere of sovereignty is bad and only seldom these bads could be legitimately done, namely when other rights are at stake and certainly not in cases of self-harm.

Given its rather abstract nature, it is not common to encounter the deontological form of antipaternalism in public debates about specific public health policy, if not in the rough form “my health choices are none of your business”. Yet the deontological argument is the backbone of broader conceptions of the role of the state that aim at reducing it to a minimum, included public health⁶⁶. While it is unclear what would be left of public health in a truly minimal state - some

⁶⁵ The case of Feinberg poses some interpretative issues. Since his analysis of paternalism is conducted in the context of the normative limit of the criminal law, the intended scope of some of his concerns does not cover policies as mere fiscal disincentives. Indeed, he explicitly mentions tax on cigarettes among legitimate forms of paternalism. Yet the arguments for this restriction – to my knowledge – cannot be found in his work so we could use his considerations wherever they seem to work.

⁶⁶ See *infra* subchapters 4.3, where I discuss distributive theories that are historically associated with libertarianism.

justifications for prevention that I will discuss in the next chapters⁶⁷ could be endorsed by some moderate libertarians - still *beneficent* public health that tackles self-harming lifestyles would not be accepted. Here the punctual discussion of specific policy loses ground if it is not carried out in the broader context of political theory: the moral discussion is not so much on specific pieces of policy, but rather on their role in broader conceptions of what the health system and public authorities is doing and should do.

Welfarism and epistemic quandaries of personal well being

There are several versions of the consequentialist welfarist critique to paternalism, and they are all based on the idea that paternalism might harm its intended beneficiaries. In this sense, it is consequentialist and welfarist: it assesses the appropriateness of a policy from the point of view of its consequences and the latter in term of human well being (Sen 1979).

The simpler case is that of *self-defeating prohibitionism*: forbidden options are alluring *as such* (i.e. as forbidden) and therefore the consumption of the proscribed items will increase despite the opposite intention. This possibility must of course be monitored, and it is a very strong critique of any policy if it is correct: there is no point in implementing measures that do not work or indeed worsen the consumption habits. To my knowledge, however, there has never been a record of self-defeating prohibitionism-like effects of food policy, so we will ignore the issue for the rest of the work.

Another worry is related with unintended non-health related consequences: in the case of prevention against unhealthy lifestyle, a candidate could be *stigmatization*. That is, if a behavior is targeted for intervention, people might start attaching a negative connotation to that habit. The negative judgment might transfer from the behavior to the people entertaining it and perhaps the latter will start being considered unworthy, unreliable or in any other way defective: this is

⁶⁷ See *infra* especially chapter 3, where the arguments in favor of intervention from efficiency can be accepted by some liberals - see Anomaly (2011) for an approach of that kind and the idea that public health must limit its actions to the provision of “public goods” that cannot be provided by markets.

stigmatization. These mechanisms that sustain the formation of social habits can be in some cases advantageous for policy makers. For instance, stigma against people who do not pay public transportation tickets will be in some cases an effective incentive for compliance. Yet if stigma gets attached to *innocent* habits, such as those that are targeted by paternalist policy, the damage might be quite substantial. Stigma is not simply psychologically damaging, but might have broader consequences, for instance leading to decreased chances of being hired, which is even more serious in socially disadvantaged people who start from an already poorer baseline. The case of food policy does pose similar concerns, because the effects of unhealthy diets and eating habits as such are often visible, so they can be targeted by stigmatization. In most societies, overweight is not considered esthetically ideal and there is indeed an income-premium to people closer to the esthetic ideal (section 1.2.2). A thorough consideration of costs and benefits of potentially stigmatizing policies is therefore necessary: paternalism can indeed be self-defective when the damage of stigmatization outweighs the gains in health.

For some welfarist, *autonomy as such* is an important piece of what make life worthy: it is part of personal well being, i.e. the unconstrained exercise of autonomy makes human beings better-off *as such*⁶⁸. This idea is very different from the deontological claim, which singles out autonomous choices as an independent object of moral concern that cannot be traded-off with gains in other dimensions, e.g. well being. Here, violation of liberty and autonomy are costs among the others, which ought to be taken into account in welfarist computations. The question here - that we will take up later on in section 2.2.4 - is how much *food agency* matters to agents.

However, the main form of the consequentialist critique to paternalism is fully general and depends on an *epistemic* concern. On the one hand, third parties as public authorities cannot make reliable judgments regarding interests, good, well being, etc. of beneficiaries (I will call this thesis: “*ignorance of third parties*”). On the other hand, individuals make these judgments very reliably and act consequentially most of the times (I will call this: “*wisdom of individuals*”). Given this epistemic asymmetry, non intervention is the best policy for pursuing a maximum level of well being for individuals. In the case of self-harming activities and unhealthy choices, self-harm might

⁶⁸ See Sen (1999) and more generally his approach centered on capabilities, which includes in welfarist normative exercises considerations about autonomy.

be only apparent and reflect instead a personal ranking of preferences that assigns a much higher value to hedonistic enjoyment in comparison to life-expectancy.

Epistemic antipaternalism is a very natural way of thinking if we abandon the idea that it is possible and/or simple to flesh out a unique theory of what makes a life valuable, for a mix of descriptive and normative reasons. This skepticism is the ultimate motivation of the ignorance of third parties thesis and takes the name of “anti-perfectionism”. There are several versions of anti-perfectionism⁶⁹, which is another recurrent topic of liberal thought. Liberals uphold individual subjectivism, rejecting any suggestion that one true self might be hidden behind contingent personal preferences (Waldron 1987). The epistemic virtues of individual choices and their aggregate results when left unfettered, in particular their sensitivity to *real* needs and wants of individuals, is instead a key theme of liberal economists and is well-entrenched in contemporary economic thinking, included models of food purchasing behavior. Agents make decision rationally in the sense that they choose so as to maximize the chance of satisfying their own personal set of preferences and interests⁷⁰. The asymmetry thesis is also the source of another strand of libertarianism, which blends welfarist themes about the epistemic superiority of individual agents and a deep-seated suspicion against the power of the state (von Hayek 1944). In this version, the epistemic asymmetry is mainly a source of inefficiency for authorities implementing paternalist policies, which are taken to be in a predicament - that of the central planner - where it is impossible to make any good.

Notice that the key premise of the consequentialist welfarist critique is descriptive. The thesis of epistemic asymmetry contains two propositions, ignorance of third parties and wisdom of the individual, which *describe* what certain agents can and cannot do and know. This is important to understand for part 2.3.2, when I will mobilize descriptive results in cognitive psychology and other sciences to claim that the idea of wisdom of the individual fails very often in the case of food choices. Also, the descriptive assumption of this form of antipaternalism exemplifies the logic of any consequentialist concerns: *given what we know (in this case, the asymmetry thesis)*, the action

⁶⁹ See *infra* section 2.3.1 on a systematic analysis of anti-perfectionism.

⁷⁰ See *infra* 2.3.2 for a description of what is meant by “rationality” in these contexts.

x will result in bad consequences, and therefore ought not to be carried out. If empirical knowledge evolves, our moral verdict might change as a consequence⁷¹.

The consequentialist critique seems to be more common in specific discussions about health related lifestyles and prevention, especially in the form of its characteristic antiperfectionistic and individualistic assumptions about the subjective nature of the good life. People do gain pleasure from unhealthy activities, and while the risk of falling prey of serious diseases that nobody desires increases, the risk might be sufficiently small to be outweighed by the pleasure of a life of excesses. After all small increases in risk that can be noticed by epidemiologists working with big numbers can be rather unimportant for individuals, no matter if for some of them the risk will be at the end fatal. Also, people have different attitudes toward risks: some accept higher risks and indeed enjoy it, while others are by nature more precautionary. Under the antiperfectionist assumption, preventive campaigns against unhealthy lifestyles are experienced as unduly *moralistic* rather than beneficent – and indeed harmful.

The common critiques against the *medicalization* of healthy life (Verweij 1999) depend in turn on similar assumptions, in particular the idea that health is just one among the several goods that make life valuable rather than its chief purpose. There are of course other drawbacks of medicalization, e.g. critical theorists might stress the issue of undue *control* on personal conduct, but the perfectionistic assumption that health is an overarching value that underlies medicalization is another obvious concern. Health is uncontroversially important for all, but this does not tell us much about the kind of trade-offs that people might be ready to make for their own good. I do not give space to the issue of medicalization here because it can be entirely reduced to the epistemic critique to paternalism: nothing is lost when treated so.

In this section, I told apart two families of antipaternalism, the consequentialist and the deontological, and I explained their normative sources in liberal thought, respectively antiperfectionism and the epistemic virtues of free choices, and the protection of a sphere of personal sovereignty. Before discussing their strengths, their flaws and their application to the prevention of

⁷¹ See *supra* in the methodological introduction.

nutrition related-diseases⁷², I will discuss previous attempts to reply to the challenges of the antipaternalists on behalf of beneficent public-health.

2.1.4 Stewardship, libertarian paternalism, and non liberal public health

The incompatibility between some key liberal values and paternalistic public policy has been at the centre of the debate on the ethics of public health in the last decades (Jennings 2009). This reflects in part some peculiarities of the normative debate that have been translated from medical ethics, in particular the inappropriateness of paternalism in the contexts of care and the doctor-patient relationship⁷³, and in part the widespread societal concerns regarding medicalization that I mentioned above.

To rescue from the antipaternalist challenge those actions that are perceived by public health officials as reasonable and good policies, several authors have set out on constructing frameworks and guidelines for a liberal public health ethics. The most discussed proposals are the *stewardship model* of public health developed by the Nuffield Council on Bioethics (NCB 2007, Dawson and Verweij 2008) and the *libertarian paternalism* framework of Thaler and Sunstein (2003, 2008). Both models have opened up important avenues for the discussion of the purposes and limits of public health. In this section, I will describe their fundamental features and argue that the stewardship model sheds bad light on deontological antipaternalism without defeating its main tenets, while libertarian paternalism addresses and solves important questions raised by the consequentialist objections to paternalism but perhaps does not take into adequate account the other form of antipaternalism, being at the end less than literally “libertarian”. Together, the two frameworks provide valuable guidelines for public health policy: my further discussion below should be considered a particular development of some topics touched by the two models. As I said in the introduction, the main difference is one of *focus*: here I try to take all the various brands of antipaternalism very seriously and provide the best argument that I know against them.

⁷² Respectively in section 2.2 and in section 2.3.

⁷³ But see Wilson (2011) on the translation of this concern in cases of public policy.

Stewardship model

In the stewardship model, the basic contention against deontological liberals who insist on the value of personal liberty is one of *abstractness*. Deontological liberals (and indeed quite explicitly in the case of libertarians) imagine a world of individuals making unconstrained free choices and a potentially oppressive state intervening by setting limits and prohibitions. The flaw of this picture according to the stewardship model is that *real* people make choices that are much constrained by their specific contexts: ethnic background, gender, social class, asymmetric relations of powers. Leftist thought has often insisted on the point that the idea of free choice employed by liberals is too coarse-grained and does not distinguish morally relevant difference: e.g. accepting a low-paid job out of need or poor bargaining power vs. accepting a low-paid job as a mean to pursue particular plans. The socialist focus on the behavior of members of social classes and on their relations of power – alternative to the focus of liberals on rational, isolated and socio-economically uncharacterized individuals - is also motivated by these considerations (Brancaccio 2010). The stewardship model employs this very same leftist point to mount an accusation of unfairness against *neutral* antipaternalist non-intervention: without active paternalist policies, those who make bad choices because of their poor background and options will continue to do so, while advantaged people will continue to drift upward while gathering the fruit of their skills of good deliberators. Antipaternalist non-intervention is not neutral as its alleged neutrality amounts at the end to full protection of good deliberators and harm to weaker individuals⁷⁴. The correct understanding of the role of a liberal state in public health, given the constrained conditions of choice of real human beings, is thus *stewardship*:

The concept of stewardship means that liberal states have responsibilities to look after important needs of people both individually and collectively. Therefore, they are stewards both to individual people, taking account of different needs arising from factors such as age, gender, ethnic background or socio-economic status, and to the population as whole [...]. In our view, the notion of stewardship gives expression to the

⁷⁴ Arneson (2005) – whose position is discussed below in section 2.2.1 - puts forward similar concerns.

obligation on states to seek to provide conditions that allow people to be healthy, especially in relation to reducing health inequalities. (NCB 2007, pg. 25)

Stewardship may require interference with liberty and/or autonomy, yet this is justified because the deontological insistence on the value of liberty and autonomy is *unfair* according to the supporter of the stewardship model. At the same times, the worries of liberals are not denied, but rather subsumed under the principle of the “least intrusive mean”, which recommends making use of the least liberty-limiting tools to pursue the objectives of stewardship. The principle of least intrusive means can be also justified on broader utilitarian bases, especially if we take into account that intrusion as such can be reason of discomfort and diminished well being⁷⁵.

Radoilska (2012) has accused the stewardship model of falling short of liberal standards, despite the *proviso* about the least intrusive means. She insists on the moral superiority of the traditional liberal public health centered on non interference:

It is unclear as to how the state’s actively tracking citizens’ avowable interests can be prevented from forcefully redefining what is avowable by them. In contrast, interference based on the harm principle is free from self-defeating consequences. It focuses on sustaining the conditions for autonomous agency rather than trying to make people autonomous. Only in extreme circumstances is one’s authority in implementing one’s interests questioned. (Radoilska 2012, pg. 142)

However, it is unclear to me whether the two proposals are practically different, in the light of the endorsement of the “least intrusive measure” principle in the stewardship model and the rather broad notion of harm that Radoilska is employing:

⁷⁵ See *supra* section 2.1.3

Epidemiological evidence can be helpfully integrated in a valid argument for governmental initiatives provided that it identifies genuinely *harmful* social arrangements. The defining feature of such arrangements is that they affect non-consenting parties and pre-empt their prospects of retaining or gaining control over relevant aspects of their lives, one of which is caring for one's health. This plausible notion of *harm* avoids a common misconception, according to which harming somebody necessarily involves making them worse off than they have been beforehand. However, *one can also harm another by denying them what is due to them* or preventing them from improving their own condition (Radoilska 2012, pg. 141, italics mine).

The focus on harms to people due to third parties “gaining control over relevant aspects of their lives” and “preventing them from improving their condition” shows that Radoilska shares with the Nuffield Council the worries about real individual choices being constrained by external factors, explicitly attributed to “social arrangements” that are suitable to epidemiological inquiry. Also, if harms due to injustices broadly conceived (e.g. “denying them what is due to them”) are the intended target of the harm principle, some overly demanding theory of justice will certainly betray the minimalist spirit of the harm principle. The harm principle is about violation of integrity in a quite physical sense (i.e. frustration of explicit interests), otherwise it would be equal to the simple requirement of respecting any duties of justice that are owed to people.

In short, it is unclear that there could be measures that would be recommended by the stewardship model and rejected by the broad version of the harm principle that is employed by Radoilska. She mentions tax and bans as policy that would be rejected under her approach, which favors upstream interventions on social arrangements. Yet the stewardship model does recommend a similar priority-setting, and could even be more restrictive in case upstream policy turns out to be very intrusive.

On the other hand, none of the two approaches have nailed down the question whether neutrality is really unfair to *bad* deliberators: neutrality as such cannot be morally worrisome. Respecting the autonomy of bad deliberators is only problematic if that prohibits *giving them what is due to them*. In chapter 4 I will extensively address this issue while dealing with the moral significance of health inequalities - where the topic will reappear. For the moment, the stewardship model has raised

reasons of suspicion toward liberal non-intervention, rather than signaling a fundamental unfairness that must be compensated: not all inequalities as such are morally worrisome. It is, so to say, a deconstructive argument that shows what can lie beyond apparently neutral political principles. However, the flight from negative freedom is a very common and contentious strategy of progressive thought and here, as in other cases, must be substantiated with a thorough discussion of what is really at stake insisting on one or the other forms of liberty.

Libertarian paternalism

Libertarian paternalists make a similar move against the fascination with free choices that is typical of antipaternalists but they employ very different materials for the same purpose, chiefly the work of experimental psychologists and economists on weakness and biases of the human capabilities of decision making (Thaler and Sunstein 2008)⁷⁶.

In several empirically substantiated models, the relevant variables that describe human choices are preferences, options, and *contexts*. While traditional paternalists either try to modify preferences relying on suspicious perfectionistic benchmarks or aim at limiting options in intrusive ways, Sunstein and Thaler propose to tinker with the context of choice for improving human decision making. Their suggestive term for this approach to policy making is “*architecture of choice*”. The job of the architect of choice is nothing new: it is normally employed by marketing experts that are trying to induce consumers to particular purchasing routes. Yet Sunstein and Thaler propose to extend the same approach to policy making. In their famous book “Nudge”, their introductory example deals with food, in particular the effect of its visual display in a canteen on the behaviors of consumers. According to the authors, healthy choices can be induced without costly constraints simply re-shuffling the position of the various servings.

⁷⁶ See *supra* in the introduction for a description of the intellectual milieu of their proposal.

They employ also a moral argument on behalf of the idea of architecture of choice: public policy and regulations mold the environment of choice of human beings whether or not this is sought explicitly. Therefore, it would be unwise and perhaps harmful not to take into account the effects of environments on human decision making. It is not that the choice is between interference and non-interference: it is between mindless interference and potentially beneficent interference. It is clear that we should go for the latter whenever possible – at least *ceteris paribus*.

Although architects of choice must anyway refer to a benchmark of goods that they want to achieve when designing environments for *better* choices, Thaler and Sunstein address welfarist epistemic objections requiring very low or zero prices for opting out the path that is being recommended or induced. This feature of their proposal is a direct reply to the critiques that are pointed out by the antipaternalists that are concerned with the potential self-defective consequences of paternalism. Recall that, given the epistemic asymmetry between individuals and third parties regarding the good and the interests of the former, paternalism enacted by the latter can be harmful because it increases the costs of (or makes utterly impossible) some options that would augment the well being of the former. Intervening on the context of choice rather than on the available options allows rational choosers to opt out without difficulties (or with small difficulties) from the program and therefore minimizes one of the potential harms that the consequentialist objection has delineated.

In conclusion, to the deontological objection that beneficence is not an appropriate reason for interference, libertarian paternalists reply that interference is often unavoidable. To the consequentialist objection that paternalism is self-defeating, the libertarian paternalists reply that there is none or little cost for non-compliers in the kind of measures that they are proposing. For these reasons, they propose the label “libertarian paternalism” for their framework: it retains the beneficent purposes of paternalism while avoiding its main limitations highlighted by liberals and, paradigmatically, by libertarians.

In one sense, the label “libertarian” is however an overstatement: libertarian paternalist did not take care of rebutting systematically the allegations that are put forward by liberty based antipaternalists. Before that is done, libertarian paternalism is still unacceptable under strict liberal standards.

Non-liberal proposals

While the stewardship model, Radoilska's (2011) extension of the harm principle and libertarian paternalism are explicitly presented as forms of *liberal* public health, other authors have tried to address the incompatibility between certain liberal values and paternalist public health by abandoning these liberal values or weighing them against principles that are untypical of mainstream liberalism. The strategy is ambitious: it is not enough to show that public health can be embedded in non liberal political theories. Since the purpose of the inquiry is justification rather than mere rational reconstruction, one has furthermore to argue that those political theories are superior to liberalism (Nielsen 2011). Although one might be overall sympathetic or enthusiastic with that effort, it remains important to show how alternative frameworks can address the objections raised by liberals. After all, the antipaternalist objections are important because they are sound, not because they belong to the mainstream liberal tradition.

With this *proviso* in mind, let us consider the main contender in the field, *republican public health*. The case is interesting because, while the relation between liberalism and republicanism are a disputed topic, there has been an extensive effort in recent years to explain how republicans in general can address some key liberal concerns: not surprisingly this tendency has leaked into public health ethics as well.

Republicanism

The main reconstruction of public health in republican terms is Jennings's (2009), who has recommended embedding public health within the neo-republican tradition as it is fleshed in a famous contribution of Philip Pettit (1997)⁷⁷. Republicans argue that several political values are

⁷⁷ The republican nature of Pettit's political theory is contentious: he explicitly distinguishes himself from previous "communitarian" versions of Rousseauian republicanism while being accused by neo-Roman or neo-Florentine thinkers of misinterpreting that diverse tradition, which has both elitist and democratic strands that ought not to be conflated (McCormick 2003).

best reconstructed if we shift away from the liberal insistence on freedom as non-interference and we consider instead the ancient idea of liberty as non-domination as the chief normative foundation of political action. What makes liberty valuable is not being wholly unfettered by the actions of other individuals - an ideal that is anyway unattainable - but rather being protected from *arbitrary* interference, interference which is not authorized, endorsed, accepted. Individuals live in political community where reciprocal interference is the norm: republican freedom protects citizens from those actual and potential interferences that are *arbitrary*, interferences that do not make sense at the eyes of the interfered parties. Even though republicanism relaxes the demand of deontological antipaternalism shifting the focus from interferences to their justification, it is utterly unclear whether it replaces it with constraints that are more sympathetic with paternalism, as argued by Jennings (2009) and strongly disputed by Nielsen (2011):

Those who enthusiastically embrace the idea that republicanism should be adopted as a basis (wholly or partially) for public health ethics on the ground that this will create a larger scope for public health interventions should remind themselves that freedom as non-dominance might, at the end of the day, justify the complete opposite: being the subject of potentially intrusive and interfering health policies is indeed a form of domination, and hence at odds with the intention to secure freedom as non-domination (Nielsen 2011, pg.49).

The ideal of non-domination fits quite naturally the attitude of suspicion toward the power of public authorities that we have singled out as an important source of the deontological critique of paternalism. Although liberals are often single-minded about the state being the worse source of domination, as epitomized in the Hayekian classic “The Road to Serfdom” (1944), the main difference with republicans seems to be that the latter do not shy away in saying that even the civil society or “the market” can arbitrarily interfere with personal liberty. Non-domination is one of the many common topics of two overlapping traditions (Nielsen 2011): republicans simply look for domination where liberals would not expect to find it.

This different emphasis does not create as such a broader scope for public health, quite the contrary. It might extend liberal worries about paternalism from public authorities to every kind of actor that might implement population health campaigns, e.g. advocacy groups. Powerful private institutions - e.g. hospitals, foundations, etc. - might be able to mount effective public health campaigns: they might for instance deliver health related information, even in the forms that we have deemed to count as intrusive. The natural liberal reaction consists in highlighting that these institutions cannot enact - let alone enforce - laws and regulations: the Weberian “monopoly of the force” (1972 [1919]) explains why liberals are ultimately concerned with public institutions and un-impressed by private powers. Yet there are several kinds of policy and regulations, and some need not traditional power to be enforced: in our case, powerful institution might set exemplary lifestyles that later spread to society at large and get enforced as any other social habit, by conformism and stigmatization of defeaters. Informal rules can be as influential as *bona-fide* laws indeed. Republicans cast their theoretical nets onto society at large when looking for sources of domination: this cannot possibly be friendlier with paternalism and indeed it suggests a natural extension of the traditional antipaternalist focus on public measures to every kind of action.

There is however another way to rescue the paternalism of public authorities in food policy within a republican framework, which is indeed very different from that suggested by Jennings (2009)⁷⁸ and starts with the observation that food companies are a very powerful actor and, as such, might threaten individual freedoms. The budget of major food retailers for advertising is indeed a powerful force in contemporary societies, a force that might be incompatible with republican ideals. Let us see an example. In 2013, McDonald’s Italy was able to mount a campaign that resonated nation-wide, by recruiting the famous movie-director Gabriele Salvatores for a TV-spot. In the midst of the Italian economic recession, the advertising notably focused on McDonald’s plan to expand activity in the country and create 3.000 jobs rather than on the quality of the products. The management of the company was able to advocate for “structural reforms” and labor-market flexibility in public debates. No advocacy group, not to speak of private citizens, can challenge such powerful public relations departments and indeed in this specific case only the biggest Italian trade union – the *Confederazione Generale del Lavoro* (ca. 5.5 million members), was able to

⁷⁸ I elaborate here an idea which is due to James Wilson (personal communication).

mount some kind of response. The mobilization against *food* advertisement is obviously weaker and the asymmetry in power between different voices is thus huge: there is no syndicate for healthy food, as it were. Perhaps this is worrisome for republicans who are striving for liberty from disproportionate *means* of interference. Since republicans would typically advocate appropriate *check-and-balances* against the potential mis-use of massive capacity to spend, the public health sector could be conceived as an appropriate counter-balance against the power of huge companies. The spread of adequate health information and even the enforcement of limitations on advertisements and selling practices can perhaps be justified on the ground that these companies are too powerful and – *as such* – they are a threat to republican liberty.

In conclusion, the liberal objections to paternalism must be addressed as such in every single case, rather than watered down in broader theories or replaced with suitable different values and views. Perhaps these values and views are superior to the non-interference paradigm, but they certainly must prove their superiority in any single case - as I sketched above discussing the power of food companies. The mere substitution of Republican liberty to liberty as non-interference in the focus of moral discussion is clearly a weak *ad-hoc* solution.

After the chart of previous proposals regarding how paternalistic policy can be rescued from the antipaternalists, let us move to the specific approach that is advocated here. In the next chapter I debunk liberty based antipaternalism and especially its application to food policy, while I later move to the discussion of welfare based antipaternalism in food policy.

2.2 Against liberty based antipaternalism in public health

In this section I criticize liberty based antipaternalism. My contention is not so much that this version of antipaternalism is unsound. Rather, I will argue that it is overstated and the same important worries can be reconstructed differently, namely from the point of view of the welfarist version of antipaternalism. I argue that the deontological argument against paternalism is not entirely independent from welfarist concerns in 2.2.1, that it does not apply neatly to the case of public health policy in 2.2.2 and that it is disputable in the case of food choices because of their particular socio-economic stratification (2.2.3) and their debatable significance for liberty (2.2.4). The relation of these four points with previous scholarly contributions is the following. 2.2.1 takes up some topics from Arneson's critique (2005) to Feinberg's deontological version of antipaternalism. 2.2.2 strengthens and extends Wilson's (2011) observation about the endemic nature of interference in public policy. 2.2.3 translates the critique to antipaternalism that has been presented by defenders of the stewardship model into the case of food-policy. 2.2.4 is a reply to a paper by Resnik (2010) that defends liberty based antipaternalism with a "slippery-slope" argument. What I achieve in this chapter is a general assessment of the relative importance of liberty based and welfare based antipaternalism in public health. I argue that the latter but not the former is the real important concern in most cases, and specifically so in the case of food policy.

2.2.1 Antipaternalist deontology explained

Arneson (2005) has proposed an argument against the "absolute and doctrinaire" antipaternalism that accuses paternalists to "subordinate the right to the good" (i.e. deontological antipaternalism) and in favor of the "broadly utilitarian"⁷⁹ liberalism of John Stuart Mill". His general tenets will be the point of departure for the next chapter, dedicated to welfarist antipaternalism: in his words, "the

⁷⁹ I will call "welfarist" what Arneson calls "utilitarianism", without any significant difference.

conclusion we should reach is not that the welfarist consequentialist should find paternalism a generally desirable policy, but that it can be morally acceptable and even required”.

The deontological antipaternalist must rely on the distinction between soft and hard paternalism to account for cases in which there is overt agreement that liberty-limiting non-consensual interference for avoiding self-harm is acceptable or even *required*. These are most typically cases regarding the relationship between parents and children or the care of persons with acute or chronic cognitive impairments. Since the deontological antipaternalist cannot say that in those cases welfare interests override autonomy – that is by definition what deontological antipaternalism cannot do – they must point out to the defective nature of autonomy in these cases to argue that it does not deserve protection in these circumstances. This is where the necessity of the distinction between hard and soft paternalism comes from: choices deserve protection when they are voluntary, otherwise liberty can be infringed for beneficent reasons. Why does the distinction between voluntary rational agency and “defective” agency bear such an important moral weight? Arneson observes that the reason must be, at least partially, welfarist:

Our reverence for rational agency capacity is to a large degree reverence for the potential that rational agency capacity gives the bearer in most normal circumstances of human life. This is potential to develop one’s individuality in particular ways, to make something worthwhile of one’s life for oneself and others, to achieve any of an enormously wide range of great goods according to our choices and the luck of circumstances (Arneson 2005, pg. 14)

That is, even for the deontologist, the moral distinction between autonomous and non-autonomous choices must be informed by considerations based on interests and human welfare. Arneson explains that this is the case even in the case of Feinberg, which is the paradigmatic defender of liberty based antipaternalism:

Feinberg's incorporation of a voluntariness standard into the ideal of personal sovereignty goes some way toward acceptance of an informed desire conception of personal good. Feinberg allows that a gross mistake of fact that is material to a decision one takes automatically renders the decision substantially non-voluntary" (Arneson 2005, pg. 9).

This move however proves the point that Arneson wanted to make: deontological antipaternalists denies that the rights of x can be violated in the name of his good, yet they are forced to admit that interference is permissible and even required if x is cognitive impaired or when the decision is based on gross factual mistakes. They would argue that the right that protects the sphere of personal sovereignty does not cover cases of deficient autonomy such as these. Yet it is unclear why this should be the case if what matters is autonomy *as such* rather than its instrumental relationship with well being. Arneson argues that the suspension of the protection over autonomous choices in cases where they are defective makes no sense whatsoever if one does not start from reasons that are welfarist. More specifically, these reasons must be ultimately due to the instrumental value of autonomous choices for the pursuit of personal interests and goods. Though *bad* voluntary choices are not a conceptual or empirical impossibility, autonomy is overall reliable: this explains why the distinction between hard and soft paternalism is morally relevant.

In other words, one cannot simultaneously support *pure* liberty based antipaternalism and accept "soft" interferences. This would require projecting an enormous weight onto the distinction between choices where autonomy is fully exercised and choices that are less than perfectly autonomous. We argued before in section 2.1.2 that the distinction is less than clear in many cases. Arneson argues further that the only plausible ground for its moral weight is welfarist. Whether a choice is perfectly autonomous matters since when it is so, it most likely pursues the agent good. Yet this admission brings the liberty based antipaternalist a long way down the road toward welfarism: he must admit that our "reverence" for autonomy is not libertarianly pure but due to utilitarian concerns.

Notice what this argument does not do: it does not *exclude* that there is a residual non-instrumental value to autonomy. Luckily, welfarism is able to explain even this residuum: the residual non-

welfarist value could be a *welfarist* residual non-consequentialist value, as suggested in section 2.1.3. Intrusion is *intrinsically* bad simply because the capacity of making independent decisions is part of what makes a good life welfare-wise. Liberty and autonomy are not a *sui generis* phenomenon that characterizes particular beings that are for some mysterious reasons worth of our moral attention: they are a natural feature of human beings. Any further insistence on the foundational role in moral theory of those two concepts seems at this point unnecessary. If Arneson is right, the protection of liberty is not a different value from the pursuit of an agent good but rather a substantial part of the latter. If one works with a complex conception of welfare – that which is typical of the Millian tradition – there is no need of assuming that beneficence and the protection of liberty are incommensurable⁸⁰.

2.2.2 Interference is endemic and unavoidable

Wilson (2011) has argued that interference with liberty without consent cannot be the moral problem *as such* of paternalist *policy*, since by its nature public authority acts non-consensually and coercively, two features of public policy that I have analyzed in section 2.1.2.

Given that non-paternalistic policies may be coercive and infringe liberty to exactly the same extent as paternalistic policies, it follows that those who want to defend the wrongness of justifying policies paternalistically need to show that there is something wrong about the paternalistically justified policy over and above its infringement of liberty (Wilson 2011, pg. 4).

This is compatible with the claim that coercion and the infringement of liberty are so severe injustices that only non-paternalist policies are appropriate, i.e. with deontological antipaternalism. However, Wilson's observation invites us to pay closer attention to the paternalist aim: the

⁸⁰ This is one of the arguments where the overall utilitarian bending of this work is explicit (see *infra* the methodological introduction). For a discussion of the liberal nature of this particular conclusion, see Gray (1998), who harshly rejects any such commensurability thesis.

beneficent intention. What is so wrong with aiming at the good of people who would potentially harm themselves? Either it is the danger of unintended consequences, as in the consequentialist welfare based critique, or something else. But what can it be this something else if it is not a welfarist concern? To repeat that beneficence is not a pertinent reason to interfere with liberty – at this point – does not succeed: public authority interferes with our lives for several reasons all the time, why is beneficence *in particular* morally inappropriate?

Perhaps in paternalist interventions there is an implicit denial of the quality of a person as deliberator: public authorities are treating target populations as if they were composed of defective deliberators. Yet what could possibly be the problem *if this were true*? The worry must be again due to a mixture of epistemic skepticism - i.e. public authorities might mistake good deliberators for bad deliberators, and concerns for the welfarist interest of not being considered incapable of adult choices.

Wilson's argument can be strengthened by the typical observation of libertarian paternalists that interference is unavoidable. Unavoidability and endemism are two different concepts: if public policy in general is coercive, perhaps this is always very problematic and – implausible as it is – this cannot count as a justification of a paternalist policy or in favor of relaxation of the burden of justification. Yet public regulation is not only endemically coercive, it is unavoidably so: without the layer of restrictions, bans, taxes, etc. the very choices that the antipaternalist would like to protect would not be possible. The picture of individual agents making unfettered choice *upon which* public authorities put restrictions is descriptively naïve. Food choices in urban settings are in this sense paradigmatic. The price, availability and nature of the options displayed in supermarkets are not simply the outset of a gigantic set of private exchanges between unfettered producers and consumers, but depends for its smooth functioning on restrictions and regulations enforced by public authorities that make the whole system viable, from agricultural policy to safety standards⁸¹. Any change in the latter variables results in modification of prices, sometimes in the disappearance of certain products: why is this less worrisome than bans or taxes introduced for paternalist

⁸¹ See for instance the observation of Popkin (2008) on the subtle influences of agricultural policies on diets, which illustrates the point I make here. For quite different purposes, I develop extensively this topic in section 4.1.2, where I argue that there is no point in distinguishing areas of free economic exchanges from authoritative decisions and interventions of public authorities.

purposes? Again, it is not that since interference is widespread then the burden of justification becomes lighter. Rather, since interference is unavoidable, antipaternalist must explain why it is so worrisome in the case of paternalism. The benchmark of free choice that is sought by deontological antipaternalism is very elusive: this brings again to welfarist antipaternalism, at least if antipaternalism can be rescued at all.

Notice indeed that even private organizations and actors in the food system can bring about the very same interferences that public authorities may want to enact (e.g. modification of prices, unavoidability of certain products). The only reason to draw a line between the two cases must at the end depend on the epistemic thesis that the welfarist antipaternalist advocates. We can thus repeat the point of Wilson even starting from a different premise: we do interfere privately with other individuals so it must be interference *with good intentions* rather than interference as such that is particularly worrisome.

2.2.3 The ideology of good deliberators

The dependency of health lifestyle on social structure, especially socio-economic status, will be discussed at length in chapter 4. Here my aim is to discuss whether evidence of social determination of unhealthy choices is relevant for the debunking of that variety of antipaternalism that is based on the value of personal liberty. I show that this social dependency casts important doubts on the deontological critique while letting untouched and perhaps strengthened the welfarist argument. The backbone of this thread of thought has been already presented while discussing the stewardship model of public health: single-minded insistence on non-interference is at least suspicious because it favors from the welfare point of view good deliberators. As Arneson (2005) puts it – as he says -“aggressively”:

Antipaternalism, most especially hard antipaternalism but definitely Feinberg’s soft paternalist compromise variety [i.e. deontological antipaternalism], looks to be an ideology of the good choosers, a doctrine that

would operate to the advantage of the already better off at the expense of the worse off, the needy and vulnerable (Arneson 2005, pg. 12, text within brackets mine).

This will not convince as such the deontologist for which freedom is valuable whatever people make out of it. A deontologist will point out that a right is not suspended if it does not get used for the best (welfare enhancing) purposes. Although this may be correct, if bad and good deliberators are not a random sample in the population but disproportionately represents, respectively, disadvantaged and advantaged people, non-intervention might prohibit measures that could potentially address important social issues, included perhaps remedying some injustices. This is the point that was raised by Radoilska (2011) and commented above. While this is not as yet conclusive and must be strengthened by a full-blown moral assessment of health inequalities, it already counts as a counter-argument against deontological antipaternalism. For the moment, deontological paternalism applied to food choices appears, in light of social epidemiology, an “ideology of the good deliberators” that may prevent the fight of some injustices.

It is very suggestive that the same critique does not apply to the welfarist critique: quite the contrary indeed. Remember that paternalism might be self-defeating, among other things, because it could damage the allegedly bad deliberators that it purports to protect. From this standpoint, if bad deliberators are more common among disadvantaged people, interference is suspicious because it might damage disproportionately these worse-off groups. The verdict is turned upside down here: *paternalism* rather than antipaternalism looks like an ideology of the “good deliberators” here. Alas, this is more than a theoretical possibility. Consider a situation in which there is no perspective of ameliorating the condition of a group of people who is taking up unhealthy lifestyles to cope with their poor predicament: any interference will simply result in worsened well being, since the choice was not irrational in the first place⁸². We have thus a further reason – though not conclusive alone – to opt for the welfarist version of antipaternalism: it survives untouched the “ideology of good deliberators” objection.

⁸² See *infra* section 1.3.2

2.2.4 Liberties that are not worth protecting

A very natural reaction to the employment of the deontological argument against paternalism pertaining food choices is to deny that food choices rank very high among the spheres of action that the liberal right based protection of autonomy is supposed to cover. In Arneson's words:

Moral rights protect important human interests. But for any right, upholding it can affect the protected interest to a larger or smaller degree [...]. Even if a right is deemed important, given that infringements of it vary by degree, and the interests that are counterposed to the right in particular circumstances can vary enormously in their moral weight, it is implausible to uphold the absolutist insistence that any right must be respected whatever the consequences (Arneson 2005, pg. 4)⁸³.

Arneson is saying two things: (1) sometimes those interests that are protected by infringing liberty have an enormous moral weight; (2) sometimes those liberties that are infringed by pursuing some important moral interest are scarcely significant. Measuring the importance of different kinds of interests and liberties is obviously complicated, if not forbidden by the kind of antiperfectionistic arguments that we will study in the next subchapter. Nevertheless it appears a gross exaggeration to extend this prohibition to every kind of ranking among values and simply suspend the judgment: public health ethics in particular is concerned with cases where pursuit of the most urgent moral weight (e.g. fighting deadly epidemics) may trump individual rights. This is of course what right-based theories would forbid, but here we may want to illustrate with the case of food choices why this is so implausible. The conclusion of this section will be the following: it is in general complicated to make universal judgments about which liberties are valuable and worth protecting, but this is due to the reasons that are highlighted by welfarist antipaternalists rather than to the value of the personal sphere of liberty. At the end, the objection against liberty based antipaternalism that we are dealing with here fails, yet this failure ultimately vindicates welfare

⁸³ The "interest-right" view of rights is not the only one available, see Gosseries 2008 for a discussion (in a different context) – yet it is the most pertinent in our discussion.

based antipaternalism: the difficulty of ranking different liberties is actually a difficulty about ranking goods, the very same difficulty that welfarist antiperfectionists are highlighting.

Let us however unfold the objection from the beginning. How could we defend the idea that food liberty is unimportant or less important than others? Here is a first proposal: dietary choices concern a central physiologic need of our species, and as such does not seem to represent a feature of *individual* persons that characterizes their personality too centrally, hence interference is not a serious violation of liberty here. The hidden assumption of this argument is that the protection of liberty makes sense in light of the value of *personal* features, especially those that are unique, i.e. those that are not shared with wider communities, humankind at large and perhaps other beings as well. This assumption does not survive a closer scrutiny. First: although the protection of the personal sphere might protect those features of individuals that distinguish them from others, its objective is hardly *exhausted* with that. Individual rights erect a series of powerful barriers against physical assault in the first place. Now, either this protection is only instrumentally valuable and serves the further objective of protecting individuality, or it protects physical integrity *as such*. If the latter, the point is proved because physical integrity is all but a unique feature of any single individual. If the former, we may want to ask why exactly the features that are “uniquely individual” are so important. How shall we proceed in the evaluation of the relative importance of unique, socialized, species-specific, etc. interests and features of human beings?

Let us make this exercise briefly for nutrition. Food choices are highly constrained by our specific biological needs and limitations. We cannot digest cellulose so we cannot survive just on leaves. We need ca. 2000 calories per day if we are adult males so we cannot go on with much less for several days. And so on. Furthermore, the intake of food means much more to humans than other metabolic needs, like respiration or excretion: human groups have highly ritualized ways of preparing and serving edible material, complicated taboos and odd preferences. Moreover, individuals have idiosyncratic habits, and food preferences could be sometimes very central to their personality, as in the case of some vegans. How do we decide which preferences deserve special protection? At the end, individual interests and wants stem from a unique ontogenesis that encompasses species-specific, social and individual processes: their origin, even if it could be

clearly tracked, does not seem to impinge on their value for persons. The opposite view over-values originality and diminishes highly socialized forms of life, when it does not entirely mistake *reflectivity* with originality: perhaps there are good reasons to give more weight to rationally endorsed behaviors, but there is no reason to exclude that socially dependent or biologically determined behaviors can be reflectively endorsed.

On the other hand, the deontological antipaternalist wins this small battle only to lose the war. The chief argument to exclude that only those features of personality that are unique are worth protecting is antiperfectionist, and the rescue of the importance of social and biological interests is based on welfarist considerations. So, we should indeed be agnostic about whether food liberty is important, but the main reason for this conclusion is not based on the value of personal liberty in general, but it is rather based on the suspicion that food liberty can indeed be an important part of personal well being.

The last defense of deontological antipaternalism that I would like to debunk has been proposed by Resnik (2010) for the specific case of food and anti-obesity campaigns. It refines the idea that liberties are worth protecting no matter how much they seem to matter - and so I treat it here. In brief, Resnik argues that although interventions on the “menu” as they are currently proposed would not infringe important liberties as such, minor infringements may pave the way to more robust and intolerable interventions of public authorities in our lives, both in menus and other dimensions of life. Though important, diets are hardly the only feature of our behavior that is relevant for health: perhaps after the menu the state will try to intrude in our sexual life, or control the degree of stress that we allow to ourselves. These serious intrusions, according to Resnik, will not be opposed because people will have gotten used to infringements thanks to the precedence of state intrusions on food choices.

This pattern of argumentation is very common in moral thought and indeed it is so common that it deserves a name: “slippery slope”. The idea is simple: a morally insignificant action that facilitates further actions that are instead unacceptable is indirectly morally proscribed. Slippery slopes are generally considered unsound, either because their dreaded conclusion does not follow from the premises, or because the consequences are too vaguely depicted to be morally interesting. I

disagree with both critiques. First, slippery slopes normally employ empirical premises about human beings getting used to bads as soon as they become common. This hidden premise might be false in any single application of the argument, however this does not show that the slippery slope has formal flaws, i.e. that it is “unsound”. Also, even if the dreaded consequences are poorly depicted, sometimes precautionary conservatism gives reasons to resist whatever change, at least if the *status quo* is decent enough or worthy as such (Cohen 2004). The problem with Resnik’s objection to paternalism is that none of these two defenses of slippery slopes are convincing in the case of food. First - as noted above - interference is already widespread in public policy and it is unclear why it should become more acceptable to people upon introduction of paternalist food restrictions. Paternalistic restrictions did not become acceptable so far even though they are very common (e.g. compulsory seat-belts), why should the next step change our attitudes so abruptly? Second, although the scenario of an intrusive state depicted by Resnik is truly worrisome, the *status quo* pertaining food choices has several drawbacks, indeed those that occupied us for the whole chapter 1: the conservative rescue of the slippery slope is therefore not viable here.

In this section, I attacked deontological antipaternalism both generally and specifically for the case of public health and food choices. There is a common pattern in at least three of the four arguments: the claim was again and again that antipaternalism must ultimately be about welfare. This is explicitly the proposition defended in the first section, which was inspired by Arneson’s paper: the reverence toward autonomy is explained by its instrumental value in the pursuit of well being. Also, if interference is widespread and unavoidable in public policy, it is the beneficent intention of paternalism that is under moral scrutiny. Finally, we cannot decide whether food liberty deserves protection without reference to the interests that are thus protected.

Powers, Faden and Shagai (2012) have argued that a proper understanding of the relevance of the Millian tradition in public health would focus much less on the harm principle and much more on the skeptic utilitarianism that characterizes Mill’s broader contributions. Liberty is honored by Mill because of the “essential role that the value of self-determination plays in human well being”. The next section is dedicated to this tradition of antipaternalism and to its consequence for the public

health fight against diet associated diseases. There I will argue that a welfarist understanding of antipaternalism is more appropriate for the context of public health. Moreover, I will show that the very same reasons that justify precaution against interference might in very specific cases even *recommend* intervention, as it was anticipated above by Arneson.

2.3 The Very Idea of Bad Food Choices

In this subchapter, I explain why welfare based antipaternalism remains worrisome in public health ethics and why evidence regarding how food choices are actually made could override even this robust version of antipaternalism - and indeed call for intervention. I show that the normative assumptions that I make do not violate the antiperfectionistic concerns of liberals by fleshing out a distinction between *thin* and *thick* theories of well being: antiperfectionists should be worried about the latter but not about the former. The purpose of this conclusive section about paternalism is thus two-fold: on one hand, I will describe and discuss a version of antipaternalism which I think is the most stable and relevant for public health. On the other hand, I will show that even this version does not exclude intervention in the case of food policy.

2.3.1 Bad choices: thin vs. thick theories of well being

While in the last subchapter I presented critically some previous contributions to the literature on paternalism, in this chapter I would like to discuss how a particular strand of antipaternalism – the skeptic welfarism that highlights the instrumental welfare goods attached to the exercise of personal autonomy – should be understood in the context of food policy. The particular view that I reconstruct here is particularly suitable to our discussion - or so I will argue - because it shows how the make use of the wealth of empirical material that is being collected about food-choice in various empirical sciences.

In section 2.1.3, I argued that welfarist antipaternalism stems from the epistemic asymmetry theses. Third parties and paradigmatically the public authority are ignorant about personal interests and so cannot pursue efficiently the good of individuals by interfering with their choices (*ignorance of third parties*), while the latter know reasonably well the nature of their wants and needs so they can more easily maximize their welfare (*wisdom of the individual*). That is why paternalist interference ought to be avoided. In this section, I will carefully analyze this argument in order to apply it to the

case of food in the next section: the analysis will suggest some important modifications to the original theses, modifications that open up a broader space to paternalist interventions. More specifically, I will replace the asymmetry theses with the rejection of what I will call *thick theory of well being*, i.e. full-fledged description of the good life. This rejection - I will argue - is the core tenet of the liberal epistemic antipaternalism attributed before to John Stuart Mill.

What can be the justification of the asymmetry theses? The ignorance of third parties and the wisdom of individuals are clearly *epistemic* theses: regarding x's well being, they say respectively that third parties will generally *describe unreliably* x's interests and that x's conception of good is an *accurate representation* of his own interests. Presumably, this must be due to the particular nature of welfare and the specific epistemic position of, respectively, third parties and x in relation to x's welfare. Hence, the asymmetry theses must depend on *the nature* of welfare and some facts regarding x's epistemic powers. Let us start with the first aspect and assess, under different understandings of the nature of welfare, what can justify the asymmetry theses.

Theories of welfare can be grouped in three sets (Parfit 1984, Keller 2010): objective list theories, experientialist theories and desires satisfaction theories: let us have a look to each of them.

Objective list theories

Objective list theories of welfare name a series of goods that would make anybody *better off*, independently of his actual wants and desires. Goods as the satisfaction of basic needs, rich personal relationships, an interesting job, etc. are obvious candidates for any objective list. The list includes basic human interests that allegedly characterize individual welfare quite independently from his actual desires.

An argument that was employed by Sen (1979) against welfarism but it is best considered as targeting a particular theory of welfare – desire satisfaction theory - is the best argument in favor of objective lists. Consider a person who grew up in dire conditions and whose desires and

preferences adapted to his unfortunate surrounding: it could be somebody living in abject poverty or somebody that has been systematically dominated and enslaved. The satisfaction of his desires and preferences is really a small thing, but hardly anybody would argue that his own conception of well being is all there is to his welfare: if all his desires were satisfied, he would still be very bad-off. However, in order to make this latter claim, there must be an external benchmark (e.g. a list) of goods for the sake of comparison.

Notice that each *particular* objective list can be challenged by means of counterexamples showing either that the list does not contain very important human goods, or that some interests that the list contains are less than universal. It can also be accused of partiality, e.g. ethnocentrism, a-historicism, etc. Notice however that seldom objective list theories have been proposed as full-fledged depictions of a good life: they are instead a reaction to the excesses of more subjectivist theories, which might miss important moral objectives while striving for neutrality. In this modest form, they signal important goods and possible *loci* of failure of personal judgment about personal interests: if people do not seek the satisfaction of basic needs, at least in some cases they could be *mistaken*. Objective lists are also employed by sufficientarians that strive to establish a “decent minimum” list of human interests that must be satisfied in every case *as a matter of justice*, things that are often characterized as “needs”⁸⁴: this is also compatible with less than complete theories of welfare.

Health is a good that figures - to my knowledge - in all objective list theories of welfare. Health is indeed also employed as a chief variable in welfarist metrics of countries’ performances, as the Human Development Index (e.g. UNDP 2013). Gostin (2007) has argued on this ground that the health of populations is as uncontroversial as any good could ever be, and that so the beneficent aim of public health policy cannot be challenged by the antiperfectionistic version of antipaternalism. This particular claim seems however too strong a conclusion, since the fact that health is an uncontroversial good does not show its relative importance in comparison with other kinds of goods. In other words, that being in good health is universally considered valuable does not show that health is an *overarching value*.

⁸⁴ See Powers and Faden (2006) - discussed *infra* in section 4.2.1- for an application in public health of sufficientarian theories.

Regarding the asymmetry theses of antiperfectionists, the objective list need not being utterly inimical to their main claim: objective list could indeed include items that are more easily accessible for individuals, namely mental states. Furthermore, I will argue below that some form or other of an objective list theory must at the end be adopted even by the antiperfectionist - while retaining his main intuitions about subjectivism.

Experientialism

A subjectivist theory of welfare is *experientialism*: welfare is ultimately about mental states. Hedonism, the thesis that what matter is ultimately experiencing pleasure and avoiding pain, is such a theory. This is a position often attributed to Jeremy Bentham (1996 [1823]), the founding father of utilitarianism. X is better off than y if and only if x's amount of experienced pleasure net of x's experienced pain is greater than y's.

Notice that experientialism, despite its subjectivism, is not an outright vindication of the asymmetry thesis. Take hedonism: in one sense, people are well situated to judge about their welfare, at least because it is contingently true that people are more reliable than any other instrument to judge about *their own* level of pleasure or pain. On the other hand, non-experiential *personal* conceptions of the good are simply false if hedonism is correct: if you think that your welfare is something else from pleasure minus pains, you are simply mistaken.

We can explain the point above distinguishing two senses of objectivity and subjectivity. On the one hand, we use objectivity₁ to speak of theories, propositions, opinions, etc. if their standard of correctness (truth-makers, etc.) is independent from the perspective of the theorist, speaker, opinion-holder and we have reliable ways of accessing to these facts to achieve certainty in judgment. We speak in this sense of the objectivity of the natural sciences. Subjectivity₁ is just the opposite: there is no independent standard, truth-maker, etc. and/or methods of access to these standards are very unreliable: a better word for subjectivity₁ is *non-objectivity*₁. On the other hand, objectivity₂ is a metaphysical notion and refers to things and properties belonging to the objective

realm in contrast to the realm of “subjects”, e.g. mental states of human (and other) beings. The latter form the set of subjective₂ entities and properties⁸⁵.

Given these distinction, we can say that the objective list theory is objective₁ and possibly subjective₂, objective₂, or both, depending on whether mental states feature in the list. Instead, experientialist theories are objective₁ and definitely subjective₂. The asymmetry thesis is thus only partially vindicated by experientialism, because it does not attribute to subjects the ultimate judgment on their welfare, given its objectivity₁.

Interest satisfaction

The theory that seems to explain better the *rationale* of the asymmetry theses is interest satisfaction⁸⁶. This theory tries to exclude individual mistakes about personal welfare simply *equating* the satisfaction of one’s conception of well being - e.g. actual desires and wants - with one’s well being. Welfare is all about the satisfaction of *actual* wants (i.e. desires) and wishes. Different individuals have different beliefs about their interests and their ranking: these are the only benchmarks for the evaluation of their welfare in each case.

This theory seems superior from the point of view of the vindication of the epistemic theses. Notice that there is a tension between searching for a theory of welfare that applies onto everybody (that is, an objective₁ theory - as the last two proposals) and a theory that entails that each individual is best situated to judge about his own welfare (the epistemic theses). To do both things, a theory should exclude that there are *bona-fide* conceptions of personal welfare that deny the truth of that theory. This seems *prima facie* impossible but actually the interest satisfaction theory does brilliantly in this respect: it distinguishes the general theory that describes the abstract features of welfare (its “nature”) and personal conceptions regarding the full specification of welfare (its

⁸⁵ See Searle (1995) for a similar couple of distinctions.

⁸⁶ I speak of interests, which is a generic term for desires and preferences: while I do not need to give an analysis of the first concept, we may want to state that preferences are just ranked desires. These subtleties are largely unimportant here – though of course are foundational for several other normative exercises.

“content”). The *nature* of welfare is interest satisfaction, while its *content* in each case is specified by personal desires and wants. So interest satisfaction theory is a fully objective₁ theory that anyway gives the maximum possible space to personal conceptions of well being and minimizes the possibility that individuals might be mistaken about their own welfare.

While the latter theory looks like the most promising approach to the asymmetry theses, I would like to argue that the interest satisfaction theory vindicates those theses paying a price that is ultimately too high: the equation between personal *actual* conceptions of welfare and personal *real* interests is not defensible and does not make sense of antiperfectionism. This is because the thesis of the wisdom of individuals is only acceptable as an *empirical* thesis: given that welfare, among other things, is about mental states (desires, perhaps pleasure), then for what we know about accessing these states, people have some epistemic advantages in comparison to others when judging about their own welfare. Yet in the interest satisfaction theory the wisdom of individuals becomes *definitional*: mistakes about personal welfare are a *conceptual* impossibility. There are at least two problems with this. First, as conceptual thesis, the equation “conception of well being = well being” is challengeable by the kind of argument employed by Sen (1979), e.g. there are clear counterexamples where the better description of the case seems to be that individual might be mistaken about their interests. Second, from the point of view of our discussion, it is critical that an overall skeptical theory as welfare antipaternalism would be compelled to attribute so powerful epistemic powers individuals. This seems an implausible reconstruction of the Millian motivations, which are ultimately gnoseologically skeptical. While it is better *practically* speaking to let people judge about their own interests, this does not entail that people cannot be mistaken about their nature: certainly this is not a conceptual impossibility.

Starting from the latter result, I propose a different view altogether to reconstruct the approach inspired to the Millian tradition. The asymmetry thesis must take the form of the following idea: general theories of welfare are often unreliable and individual are *roughly* good in describing their own interests. This is because they are in a favorable epistemic position to judge about some

aspects of their own welfare: nobody denies (or could plausibly deny) that, among other things, the satisfaction of desires makes life better and that desires are most easily accessible by individuals. This explains welfare antipaternalism. Alas, people are not infallible: they might ignore facts about the world and about themselves or have sub-optimal preferences, as in the cases that Sen describes. This is why we need an objective benchmark of the kind proposed by the objectivists.

Skeptical antiperfectionists are not advocating metaphysical subjectivism₂, nor denying that welfare theories cannot be objective₁. They rather stress those reasonable differences between individual conceptions of welfare that speak against those who try to flesh out full-fledged theories of the good life: i.e. *thick* theories of well being. Their worries relate with the oppressive nature of these theories, which exclude originality and the relevance of personal judgments in the name of *conformity*. Antiperfectionists do not need to deny that *thin* theories of well being are instead possible and indeed important. Thin theories will contain general propositions about the nature of welfare (e.g. “the satisfaction of their desires makes people better-off”), a list of clear goods (e.g. health) or at least a list of clear bads (e.g. diseases), and some other abstract constraints (e.g. coherence).

Thin theories are the antiperfectionist benchmark for judging personal choices: antipaternalists need not worry about paternalism when choices are deemed to be poor from the point of view of *thin* benchmarks. The development of the thin theory – respecting the anti-theoretical impulse that initiated it – will be necessarily a sort of casuistry. The theory will analyze the welfare optimality of specific behaviors starting from expressed preferences, empirical studies and theoretical considerations. That is what I will try to do in the next section for the case of food: I hope to have convinced the antiperfectionist that this does not need to offend his most deep-seated concerns about the risks of conformity and the value of diversity in desires and preferences.

2.3.2 Bad food choices

Dietary choices are influenced by cognitive biases, poor environments and lack of information. Soft paternalists would argue in a deontological spirit that interference is admissible because

cognitive biases, poor environments and lack of information subtract to the autonomous character of choices. In reply to Resnik's (2010) observation that in the case of public health restrictions on diet "at stake is a freedom that most of us exercise every day but often take for granted: the freedom to choose what we eat", Boddington (2010) writes that "it is quite right that we should not take this for granted: this is because many of us are not in fact straightforwardly free to choose our diets" and that environmental, social and cognitive factors are "curtailing our autonomy". Skipper (2013, pg. 182), endorsing libertarian paternalist strategies to tackle the obesity epidemic, has argued that "anthropologists, evolutionary biologists, neuroscientists, psychologists, sociologists and others have provided considerable empirical evidence that our capacity to choose and maintain a healthy diet is severely limited". I explained why this is morally irrelevant for the assessment of paternalist public health policies and I sketched a preliminary argument as for why this is cannot be true under any plausible conceptions of liberty and autonomy (section 2.1.1). The real moral problem is that such dietary choices - because they are so constrained - are *bad* in the sense of the thin theory of welfare above: they are very poor means for pursuing sensitive personal interests.

Behavioral psychologists and empirical economists have provided extensive evidence that real human behavior is poorly modeled by the assumptions of rationality of traditional economic models: this is the point of departure of libertarian paternalists (Thaler and Sunstein 2003). The idea of rationality here is very simple. Agents are endowed with a set of coherent and complete preferences over certain states, i.e. they assign to each state an ordinal utility. This is a comparative judgment about how much utility they expect to gain from each state. Completeness requires that agents are always able to tell if a state A is superior, inferior, or equal to the state A in term of expected utility. Coherence requires transitivity, e.g. if A is superior (equal) to B, and B superior (equal) to C, then A is superior (equal) to C. Also, agents are endowed with the relevant information that permits connecting decision and states, e.g. "if you do g, then A will ensue with probability p". That is, they have a roughly reliable picture of the causal structure of the world.

Given these assumptions, behavior is modeled as if it was a systematic effort to maximize expected utilities: rational agents are trying⁸⁷ to gain as much welfare as possible.

In the case of food choices as in other fields, a more realistic depiction of the working cognitive machinery underlying decision making highlights its potential dependency on factors that seem irrelevant from the point of view of rationality. For instance, if an agent makes two different choices depending on whether his blood sugar level is above or under a certain threshold, this must be rationally irrelevant⁸⁸. Assume that preferences are complete and coherent, than at least in one case the agent is behaving irrationally. Plus, in both cases he is acting on the basis of a factor that he cannot know in ordinary circumstances, blood glucose level: obviously there cannot be any explicit rule he is following, and any implicit welfare maximizing rule is even hard to imagine. If instead preferences are volatile from one case to the next, then they are not inter-temporally complete and coherent. The information that we gain from this kind of evidence is morally important because they are cases in which the agent autonomy is not instrumentally effective in the pursuit of well being. In other words, the agent is not being *wise*, i.e. there is no way to interpret his behavior as if he was rational. The worries of epistemic antipaternalists should be smoothed by this kind of evidence, whose normative evaluations are based on very thin consideration about well being (in this case: coherence) that even an antiperfectionist could accept.

In the rest of this section, I will review several cases of *failure* of the wisdom of the agent in dietary choices. In some cases, I will however argue that there is no failure: I analyze those instances only because they have been discussed in the literature. At the end, it should be clear how empirical evidence could be used - and how it cannot - to strengthen the case for action *despite* welfarist antipaternalism.

⁸⁷ They also *should* try to do so according to the theory, which is indeed an analysis of an intrinsically normative concept: rationality.

⁸⁸ A popular introduction to these topics is Kahneman (2011).

In the last decade, there has been an extensive attention to the notion of “*obesogenic environment*” (White 2006). The details of urban planning are thought to influence food choices and patterns of physical activity. Absence of cycle lanes and pedestrian areas, high prevalence of car use and the presence of retailers of cheap high-calories low-nutrients food are recognized risk-factors for obesity. Let us focus for illustration on the latter: the geography of retailers. This is not as such an irrelevant factor for rational agency: driving one hour to the next fresh vegetables market because only fast-food is available at the back door can substantially decrease welfare. In this case, if there is a problem with the geography of food shops is not one of *unwise personal behavior* that might be addressed with paternalist restrictions, indeed restrictions could even damage the purported beneficiaries, as it is warned by the welfarist antipaternalist. The real issue concerns the geography of retailers as such, not the resulting individual decisions about food.

In the context of paternalism, the relevant question about the obesogenic environment is whether the geography of food retailers can be considered rationally irrelevant, perhaps because it underlies a gross “framing effect” not dissimilar to the case of the display of food in canteens that we discussed in section 2.1.4. Notice however that the case of food canteen functions for the purposes of libertarian paternalists because switching from one to the other menu (e.g. from vegetables to fatty foods) is costless, so the framing-dependent choice cannot have any rational explanation. In large scale contexts as those pertaining urban geography it is hard to imagine fully costless alternatives. Scarcity of healthy food (i.e. “food deserts”) is a rationally relevant factor of choice because transportation is expensive. Abundance of fast-foods is a rationally relevant factor because it is less time-consuming to get in there rather than looking for the sparse vegetarian restaurants. And so on. Despite their relevance for policy making, these factors are not reasons as such to drop the epistemic antipaternalist veto to interference: behaviors that are dependent on obesogenic environments can be rational. Here our verdict is sharply different from the liberty based approach of Skipper (2013): he would have rather argued that obesogenic environments are limiting liberty and thus that interference is at the end unproblematic.

Anand and Gray (2009) have constructed a more complex model to explain what can be suboptimal in terms of welfare in the case of environments. They start by observing that the relative abundance of ready-to-eat unhealthy foods might be sometimes optimal for the reasons depicted above, i.e. time sparing and cost. Then they argue that the evolution of the “opportunity set” guided by demand, i.e. the evolution of market offer of food, can be nonetheless suboptimal because individuals have second order preferences about opportunity sets in addition to punctual preferences about consumption. For instance, I might be delighted by the discovery that I can eat a sandwich at the bar because I have a meeting in ten minutes and yet regret the fact that sandwiches are always available because of my gluttony that I would prefer to keep at bay. In this case, the environment (e.g. opportunity set) might indeed be a factor that renders unwise the choice of food: this allows for paternalist intervention, as recommended by the two authors.

Before discussing other cases, notice that the distinction between first and second order preferences is also the kind of content that I was promising for a thin theory of well being. The distinction is a very abstract proposition that does not exclude that individuals might have hugely different conceptions of well being. In other words, the distinction has nothing to do with a perfectionistic full-fledged description of welfare, and yet it is a potentially universal feature of personal welfare that we ought to take into account in policy making.

The next four cases of determinants of diets are taken from Skipper (2013), who discusses them from reasons that are similar to mine but within a deontological framework. He points out the morally irrelevant fact that these factors are *determinants* of food choices, while I will claim (when possible) that they are *rationally* irrelevant. That choices are constrained and determined by some external *factors* cannot be morally interesting, the alternative is too metaphysically odd. Yet that determinant factors are irrelevant for welfare can be very important for policy makers.

Neural correlates of feeding behavior

Skipper (2013) reports the behavioral and neurological studies conducted by Page et al. (2011), which show impaired inhibition of the desire of food after lunch in obese people. The level of blood sugar regulates appetite through a stress response mechanism that is repressed when sugar level is normal and it is instead triggered by hypoglycemia. Page and colleagues manipulated sugar levels and evaluated the appetite in obese and normal BMI subjects, screening their pattern of neuronal activation. They discovered that the repression of appetite seems to depend on the pre-frontal cortex, which is - in independent studies - associated with the repression of impulses. The key result of their study is the observation of a poor activation of the pre-frontal cortex in obese subjects with normal blood sugar levels and their increased appetite (as evaluated by personal rating) in comparison with healthy subjects. It is obviously not surprising that sugar level influences food choices with the mediation of appetite response, yet it is surprising that the mechanism is impaired in obese subjects. This however cannot be morally relevant because it shows *determination*: in this respect healthy and obese subject do not differ at all (how can they if compatibilism about free will is true?). Instead, the crucial fact is that the impairment of the appetite-regulation pathway is an irrelevant factor for the decision on whether or not consuming fat and sugary foods. Moreover, it is associated with obesity, a condition that would require even higher restraints on diet: as a consequence, the food choices of obese subjects are very likely to be *bad*, indeed very bad. This is perhaps the best illustration of my approach: it is obvious that ultimately every choice depends on mechanistic pathways in the brain. Yet we have reasons to intervene only when we can show that these pathways will reliably lead to bad outcomes.

Mindless eating

In the same piece, Skipper describes Wansink's (2007) studies about framing effects on the evaluation of the size of portions and consumption. In a series of experiments, Wansink has shown

that visual clues as the tidiness of dining tables and the size of serving plates influence the quantity of ingested food. Tidy tables and bigger serving plates determine significant increases of consumption, especially among men. Skipper argues that “what is important here is not so much the explanation of how the cues influenced the subjects, but rather that the cues had influence at all [...] managing our consumption of food is not firmly in our control (pg. 184)”. Although in this case it is indeed surprising that visual clues modify the amount of food intake, the problem again is that “we are not *good* at judging portion sizes or tracking our consumption in distracting environments” rather than an issue of poor *control*. What would count as *full* control? Perhaps ignoring visual clues will improve control because the size of the serving plate and the tidiness of the tables are obviously irrelevant as for whether the next piece of sandwich will be good for me health-wise, but again this is a case where “our reverence” for control is instrumental and related with the role of control in personal well being.

Obesity is contagious

A study by Christakis and Fowler (2007) about obesity and social relationships has explored whether being related biologically (e.g. siblings) or socially (e.g. friendship) with obese people increases the chance of obesity. The answer seems to be positive. These correlations are difficult to interpret. Biological correlation can be due to factors that do not act at social level, e.g. genetics. In case of social groups, the effects can go from obesity to social ties as well, since people might select for peers with similar body mass index. However, even if causation runs from social ties with obese people to obesity, we ought to discard the hypothesis that food choices are bad *simply* as a result of this contagion. Perhaps there are habits regarding foods that are specific to certain groups such that individuals are adapting their behaviors to join the advantages of membership. This is not irrational if indeed adaptation is a condition of membership and ensuing advantages are big enough. The evidence that would prove irrationality must consist in showing that living in a group of obese people renders obesity unwisely *acceptable*, i.e. by masking the information about the

adverse effects of unhealthy diets. This however would count as lack of information rather than poor control, an issue that I discuss below.

The evolution of obesity

As a final example, Skipper presents the theory of the mismatch between our evolutionary wired eating habits and the food plentitude of modern society. Let us explain his point with an analogy from zoology. When a carnivore (e.g. the wolf) enters a fenced pasture or farm where domesticated animals are collected for the night, it faces a highly unusual environment: an endless amount of easily reachable food. After all wolves are hunting in the wild since half million years, whereas domesticated animals and their crowded human-made shelters are at most ten thousand years old: some animals might not have adapted to the new circumstances so rapidly. The consequences are often dire: over-killing and waste of prey. The mismatch theory of obesity maintains that something similar applies to human beings quite as well: our “pleistocenic” mind of hunter-gatherers is not able to limit properly food intake in sedentary conditions where food is ready available and physical exercise scarce. It is interesting that in this case even Skipper must present his point in a welfarist form: given the evolutionary mismatch, food choices are very likely to be *bad*. It would be indeed amusing to argue differently: any capability of decision making ultimately relies on cognitive machineries that have been molded by our evolution, but that cannot detract from their autonomous nature, if not to argue that compatibilism is false and that autonomy cannot exist, hardly an attractive option from the point of view of the deontologist and his passion for autonomy. Again: yes, antipaternalism is overstated if the mismatch theory is correct; and no, the mismatch theory does not show that human being are “simply without the sort of decision making autonomy that advocates of paternalism are accused of violating”. Human are simply very bad choosers since human techno-sociological developments have outstripped the process of adaptation of human capability of decision making to the environment.

Skipper's treatment of the factors that explain (bad) food choices is incomplete. Experimental economists have elaborated models of decision making in case of addiction and poor investment that might be applied to the case of food as well (e.g. O'Donoghue and Rabin 1999). The idea is to put at test different heuristics of decision making that can explain phenomena that are puzzling in the standard rationalist models. These heuristics – in some cases – can be easily described as “bad” pieces of reasoning.

In general, addictions might be modeled as clashes between short term rewards (costs) and long term costs (benefits). Individuals are often faced with the option of forgoing an immediate benefit for the sake of a future (bigger) reward or with the option of gathering a present benefit by risking future losses. For instance, I might decide to work for a paper this week-end instead of going to the mountains: despite the painful consequences of my decision for the week-end, the investment might contribute to an important achievement of mine in the long term. In the case of reckless health behaviors, I may decide to drink another glass of beer because it tastes great despite it is recommended to avoid drinking more than a unit of alcohol a day to avoid some chronic diseases.

An important feature of these *inter-temporal* choices is that it is generally rational to discount future benefits and losses, and the more they are distant in time, the more it is rational to discount their value. The idea is simply that the chance of gathering (paying for) future benefits (losses) grows smaller and smaller as benefits are more distant in time. If not for anything else, the probability of death is always greater than zero and sums up as time passes. More generally, uncertainty increases with time for epistemic reasons, i.e. more variables will influence later outcomes. It is however experimentally demonstrated that several people do not discount future utilities in a coherent manner (i.e. exponential discounting): they rather discount future benefits more heavily the closer they are in time. In other words, they prefer to wait for one day in one month than in one week (i.e. hyperbolic discounting). This present biased discount accounts for addiction and procrastination because immediate rewards are given a very high value in hyperbolic models.

Hyperbolic discounting is considered irrational because it is dynamically inconsistent. Take the decision of indulging in wine-drinking instead of jogging at time T . Now consider two earlier time points, T_1 and T_2 , respectively farther and closer in time with T . In exponential discounting, it does not matter whether I am at T_1 or at T_2 : I will always discount the benefits of jogging with a fixed rate. Instead, in hyperbolic models, I will discount at T_2 with a rate r greater of the rate q at which I would discount at T_1 . In general, the closer to T , the more I would discount. These differences might give inconsistent instructions as for how I should maximize my well being: perhaps from the perspective of T_1 I should go jogging whilst from the perspective of T_2 I should drink wine, hence the inconsistency. The instruction that is held at the point of decision will win, but that will be wrong from the point of view of an earlier (and future) self. Again, this is a reason to drop the antipaternalist worry and favor one solution over the other. In particular, there is at least one reason to favor the verdict of the selves that are farther away in time: their verdict is temporally prevalent. That is, more often than not, and indeed always if not in the time immediately surrounding the decision, the alternative that is actually chosen is considered inferior by the agent. The underlying normative judgment might be less than universal in application, but still it is reliable enough to be included in the thin theory of welfare that is recommended by the antiperfectionist antipaternalist.

Poor information

Food choices depend on a balancing between immediate pleasures and ensuing risks of cardiovascular diseases and cancer. Depending on risk aversion, two individuals might make opposite choices: this is unproblematic. Yet they might make opposite choices even because one of them lack relevant information, e.g. underestimate risks. For instance, a UCL study (Sanderson 2009) has shown good awareness in a sample of UK population of the links between obesity and cardiovascular conditions, yet the more recent evidence that some kinds of cancer are associated to diet was ignored: this leads to substantial underestimation of risks. In the case of lack of knowledge, individuals might make bad choices simply because they cannot connect appropriately their actions with the expected outcomes. These cases suggest intervening by means of

informational campaign, yet if these were to fail or to be too expensive, policy makers should be unimpressed by epistemic antipaternalism: the general assumption that equates free choices with good choices must be rejected if the relevant causal information is not complete. The data about awareness suggest furthermore caution on the rhetoric of “health education”: while perhaps educational campaigns are intrinsically worthy (e.g. because it is good for people to know more), their effect on behaviors will not necessarily be important.

Bad preferences

As explained in section 2.3.1, Sen (1979) discussed cases where preferences and their ranking are suboptimal, for instance in the case of an individual who has adapted to dire circumstances and is content with very poor options. Here, his behavior is not optimal not so much because it is irrational in the sense defined above, but because it is very implausible to accept that his preferences are correct. This shows the need of at least a clear list of bads in the thin theory. However, this is not going to be decisive in cases of food choices: assume that chronic diseases belong to the list of uncontroversial bads. Still the link between food choices and the outset of chronic disease is too tenuous to justify interventions on this basis. Although the aggregate effect of unhealthy diets is vast in terms of incidence of disease and although the risk is substantially augmented by unhealthy lifestyles, the individual risk due to these lifestyles is too low to be *uncontroversially* considered an irrational pursuit of a clear bad. That is, these considerations do not suit the general inspiration of an antiperfectionist thin theory of well being.

Socio-economic determination

A well-know determinant of unhealthy food consumption is ability to pay: unhealthy food is generally cheaper and people mastering less economic resources will opt for it. Individuals

purchasing behavior is dependent on price: people look at their budgets when deliberating about their food choices. Also, this is an important factor underlying socio-economic differences in healthy behaviors (Pampel 2009). It would be however wrong to argue that choices are *bad* as a consequence of this kind of determination. The comparative and absolute prices of healthy and unhealthy foods are obviously worrisome. However, selecting cheaper foods when the personal budget is limited is as rational as a choice could be: with restricted budgets, opting for unhealthy cheap items is more rational than doing the same with a stronger ability to pay. This is a just consequence of the empirical generalization of diminishing returns of income on welfare. For people with smaller budgets, sparing on food is more important because the alternative utilization of money is in general more useful than in the case of richer people. I hasten to notice that this does not show that there is no problem with economic determination of food behaviors: perhaps the underlying income and wealth distribution is independently bad, maybe because - among other things - it does not allow some individuals to purchase healthy items. Yet it will be wrong to argue that the moral problem of economic determination is that choices are constrained or even rationally bad as a result of differential in budgets: they are neither.

Notice that in this case, the welfarist and the deontological approach have very different consequences: if the problem of food choices is determination *as such*, there is really no difference between economic determination and - say, mindless eating. Yet if the problem of determination is that sometimes it leads to bad choices, we are able to discriminate between cases that are morally interesting for the antipaternalist and cases that are not - as the latter.

In this section, I listed and discussed several cases for suspending the otherwise sensitive welfarist antipaternalism that I described in section 2.3.1. For each case, I have shown that the problem is not so much that people are not autonomous: rather, the problem is that constrained choices are very likely to be poor. These are all cases where the optimism on individual behaviors that ultimately motivates epistemic antipaternalism is not convincing. On the other hand, I also highlighted how the kind of considerations that underlies these normative judgments (i.e. *bad* choices) is very *thin*, and ought to be accepted even if we believe that antiperfectionism is an important and prudent

political principle. Overall, I have so far explained which varieties of antipaternalism are meaningful and which are not and why in the case of public health and nutrition even the best antipaternalist arguments do not forbid intervention.

Next sections will be dedicated to two issues that are somehow orthogonal to this conclusion but must be addressed in every complete treatment of the topic: (1) whether paternalism can be acceptable if populations are stratified in bad and good deliberators and (2) whether there are specific problems with restrictions imposed on children from the point of view of the liberty of their parents. In both cases, the solution is inspired by the kind of utilitarian antipaternalism that was unfolded and qualified in the chapter.

2.3.4 One size fits all?

The last section has provided some evidence as for why individuals behave as bad deliberators in dietary choices. Paternalist measures that can address this problem include *population-wide* disincentives in the form of taxation, bans and other form of restrictions (i.e. on ingredients composition and proportion, and/or size of servings). Yet population-wide policy overshoots: for certainly along bad deliberators there will be good deliberators who will be equally restricted by these measures and indeed harmed by them. The harm will not be in general very serious and perhaps it will be as little as the necessity to order two portions instead of one to get sated after a long fasting. Nevertheless, good deliberators have reasons to complain, since paternalism seems an “ideology of bad deliberators” that put them at disadvantage. Can the paternalist reply to this challenge?

To begin with, notice that heterogeneous population composed by both bad and good deliberators will in general exist. Some but not all will have second order preferences on restricted opportunity sets, for instance those who acknowledge their gluttony and would like to self-constrain themselves. Some but not all will have a dysfunctional appetite regulation pathway: this is after all the other side of the study by Page (2009). Individuals might belong to groups of

contagious overweight people, but equally they might not. Somebody will be disturbed by informational noise when evaluating portion size, whereas other will be responsive to internal clues only. The evolutionary argument applies equally to each human being, but certainly some will be able to overcome their eating impulses. As for contradictory time discount, experimental evidence shows that some people do discount exponentially. For each of the factors of bad choice presented above, it is logically possible, intuitively plausible and/or empirically demonstrated that it does not apply universally.

There are three general responses to this hurdle: (1) there are positive externalities of restriction and they affect good deliberators as well; (2) good deliberators can get direct compensation for their losses; (3) good deliberators might undergo some sacrifices if the gain of bad deliberators is great. I argue that the first argument is perhaps sound and that the second argument suggests an interesting practical solution based on voting. However, it is the third strategy that ultimately will decide on the acceptability of paternalistic restrictions.

(1) The next chapter will be dedicated to the social goods attached to population health, i.e. decreased health expenses and increased productivity. For the moment, the argument is only conditional: if there are substantial gains for society that can be achieved only with some limited restrictions that harm good deliberators, the latter should perhaps undergo some losses for the sake of higher gains. Notice that, in general, these cost-benefit analyses should not be applied so simplistically onto the aggregate population: they hide distributive concerns and might recommend inflicting intolerable losses onto few people. This strategy is only viable if societal gains are so elevated that they might roughly compensate good deliberators: in these cases, they could undergo losses for selfish reasons.

(2) Some welfare economists have proposed to compensate *literally* the good deliberators: this should be feasible for restrictions as taxations, which provide public revenues, and if bad deliberators are sufficiently many (or equally, if good deliberators are few). The idea is that the gain in welfare of bad deliberators that is ensuing from taxation will sum up to tax revenues that can be used to compensate good deliberators (O'Donoghue & Rabin 2006). The result is

distributively neutral: nobody is worse off for the sake of somebody else and welfare is overall increased because bad deliberators are rescued from their own choices.

The proposal as such is perhaps unfeasible, at least because we ought not to administer tests of deliberative capabilities to check for compensation eligibility. It is more likely that revenues will be channeled for other worth social purposes, thus reinforcing the argument above about social gains. This is not distributively neutral - as required by welfare economists⁸⁹ - yet the basic idea can be saved if we allow people to deliberate and vote on the destination of revenues. In this case, both good and bad deliberators will decide how to use public money, but at least good deliberators will obtain a partial *Ersatz*-compensation: partial deliberation on the use of revenues. This has been done in California, Richmond, through a referendum deciding for taxation policy on unhealthy food and public deliberation about the employment of revenues. The only possible *rationale* for this method is indeed compensation to good deliberators: otherwise normal institutions for deciding upon public expenses (i.e. city council administration) would have been sufficient, provided that they are so for other budgetary decisions.

(3) Buyx and Prainsack (2007) claim that the notion of solidarity should be put back in the political discussion about health policy. This is important here because, among other things, a focus on solidarity would be capable of taking into account the fact that people might sometimes act selflessly and support at their expenses institutions that do not provide any benefit to them. In this case, good deliberators could accept selflessly minor harms for the sake of benefiting bad deliberators. There are perhaps other cases in which this actually happens: public institutions do not simply re-address gross injustice or provide public goods, they are sometimes thoroughly beneficent. Solidarity based considerations are in one sense very weak: there will certainly be objectors that do not want to act selflessly and complain *rightly* about forced beneficence. Yet sometimes *forced* beneficence is only efficient⁹⁰ and this seems to be the case even in our small example: anything short of universal application of taxation is unfeasible.

⁸⁹ See *infra* section 3.2.4

⁹⁰ See Waldron (1986) for an application of the idea of legitimate coerced beneficence to social policy in general.

On the other hand, the idea of solidarity clarifies that the complaints of the selfish or the right-based complaints of the libertarian on his behalf are not trumps to beneficent policy: at least not always and everywhere. Political principles are not free-standing constraints on the political life, but they are propositions that motivate political action, ground political objections, and vivify political discussion: in societies that have internalized the duty of beneficence (or solidarity) and even lack narrative resources to insist on the liberal right-talk, *forced beneficence* is perhaps politically objectionable but hardly illegitimate. This idea threatens a fundamental motivation of political liberalism regarding the protection of minorities (in this case, the libertarian and the selfish) and obviously needs more extensive attention, which I cannot give properly in this context. Yet I wanted at least to signal that it seems implausible to maintain that the weight of different considerations about political justice are utterly independent from the actual conception of justices that are upheld by the members of one community, at least because living in a society which fits one's conception of justice is a very serious interest of everybody. Policies that command selfless behavior are not utterly inappropriate in every circumstance: sometimes forced beneficence can be legitimately implemented.

2.4 Appendix: indirect paternalism and parental autonomy

In chapter 1, I presented data about the epidemic of overweight and obesity in children and their consequences for adult and earlier health conditions. Population health policy has often targeted children and adolescents, given the clinical significance of diet at young age and the relevance of early imprinting for later food behaviors. There might be stricter regulations on ingredients specifically designed for children, restrictions on advertisements targeting the young and even bans on certain foods in vending machines and school canteens. The latter measures may be contested by parents claiming that they are a threat for their freedom to choose and cook what they prefer *via* the conditioning of their children. In the spirit of the chapter, I will argue that we should address this issue dropping principled concerns about the sphere of parental liberty or the lack of autonomy of children and focusing instead on the welfarist reasons that we have to favor parental freedom of choice.

The political status of children is complex (Archard and MacLeod 2002): they are independent persons holding some individual rights (e.g. negative rights) but not others (e.g. some political rights), they are subject to parental authority (that is, parents can decide *on their behalf* in a series of cases) and they are societal goods as future citizens (i.e. future productive taxpayers and future citizens entitled to welfare compensation). Those who complain about food policy targeted at children normally argue that there are neither violations of children rights nor serious societal bads to be avoided that justify overriding parental autonomy in the case of food choices. Replies consist in pointing out either negative rights that are allegedly violated in the case of children eating inadequate food or serious societal harms that can be prevented by health policy.

Rights of children can be violated in two ways: either they are straightforwardly harmed, for instance if their physical integrity is threatened, or their condition is such that some requirements of justice toward them cannot be fulfilled *in the future*, included the violation of further negative rights. In general, this is because they have – as anybody else – present and future interests: the latter are just more obvious in the case of children.

For the moment, I start by noticing that it would be far-fetched to argue that negative rights are *systematically* violated in standard cases of unhealthy diet in children: overweight and obese children and worse off than others, both physically and psychologically, yet they are not threatened by abuse or abandonment. Different parental styles might lead to dietary problems: parental absenteeism is associated with longer TV-watching, which is a determinant of obesity (Blacksher 2008). Yet these parental styles are not considered right-violating and parents *de facto* do not forgo their authority adopting them. While this is not yet a normative argument, it suggests that we ought to balance with accuracy harms and benefits of both parental autonomy and the intrusion of public authorities in the life of families, rather than speaking of rights of the ones against the others. That is, instead of starting with parental sovereignty (or even property rights on children - see Nozick 1974), we should look for some broadly welfarist justification of the protection of the private sphere of the family and discuss whether this justification is convincing in the case of food.

One solution comes – not surprisingly – from Mill (1991 [1859]). Millian “experiments in living” argument for toleration suggests a prudent antipaternalist attitude toward intrusions of public authorities into parental styles. In general, Mill claims that toleration of different forms of human life (i.e. religions, sexual orientation, etc.) is recommendable because of the epistemic value of these *experiments*. Perhaps some ways of life are indeed inferior for those who are living them, but figuring out how a good life should be is a hard task - the skeptic antiperfectionist says – and having different people simply trying their way will be overall better than prohibiting activities that might be beneficial and/or recommending habits that can be harmful. This deduction of toleration extends to that subsection of conduct that is one’s parenting style. Third parties (i.e. children) are indeed involved in one’s parenting style, but until the rights of children are grossly violated, the Millian argument suggests caution and protection onto families.

Public health policy is a long-standing battlefield for the potential clash between parental decisions and the recommendation and/or compulsion of public officials, from vaccines to dietary guidelines. The nurture of children is indeed a traditional target of hygiene campaigns (Porter 1999), given the special effectiveness of early interventions for life-long health outcomes. The campaign against *medicalization* has been also fought on this terrain, and yet debate has seldom been lead on the

ground of political principles protecting autonomy. The worry is that public health officials might be mistaken when recommending certain practices, rather than specific concerns about the violation of parental rights. Risks can offset benefits in the case of vaccines; particular guidelines, e.g. avoiding certain foods, might turn out to be useless or harmful. The precautionary skepticism that characterizes utilitarian antipaternalism urges to consider accurately whether uniformity in parental styles is really needed.

This does not prohibit intervention – only caution. I have argued in section 2.3.2 that human food choices are often quite poor, and there is no reason to believe that they are substantially better when individuals act or cook on behalf of their children. Indeed, there is evidence of the contrary: obesity runs in family and although this is partially due to biological inheritance, it is familiar habits that make for most of the correlation. Also, there are no known risks of the familiar guidelines for healthy diets: if children eat more vegetables and less red meat, this is hardly risky (compare the case of vaccine for contrast).

Caution is however recommended for further reasons. Unhealthy familiar choices might be due to budget or time constraints rather than failures in decision making: perhaps overworked poor parents cannot cook time-consuming healthy dishes starting from raw vegetables and must go for the ready-made foods. Perhaps they are fetching cheaper products because the priority is using a restricted budget for educational investments, etc. In these cases, unhealthy food choices are not suboptimal but fully rational, and the problem cannot be addressed by paternalist policy but rather tackling the underlying social determinants. In general, the protection of parental autonomy does not give sufficient reasons to avoid restrictions in schools, etc. However, the antipaternalist critique shows that regulators should pay attention on whether familiar food choices are really bad (i.e. irrational) or they are rational adaptation to circumstances that are independently problematic.

2.5 When we should worry about paternalism in public health

In this chapter, I reconstructed and defended the morality of the traditional beneficent model of public health from the allegations of paternalism. I analyzed antipaternalism and rejected its deontological version with its single-minded attention to the sphere of personal liberty. I argued that a philosophically superior form of antipaternalism is welfarist, skeptic, and antiperfectionist. This version of antipaternalism suggests caution in public health (as in other beneficent sectors of public policy) because personal interests are very diverse, sometimes unusual, and people are roughly good most of the times in judging about their own. For the case of food, I have shown that also this particular worry is overstated: food choices depend on biases, wrong judgments, and poor information. I argued that determination of choices as such cannot be problematic within a naturalistic conception of choice and autonomy. The evidence provided by empirical economists, psychologists and sociologists suggest however an interventionist attitude. Policies must be always carried out with particular attention to unintended effects on good deliberators and people who are indirectly targeted. This form of welfarist and antiperfectionist *rationale* for public health intervention is the first piece of my reconstruction of the aims of preventive medicine that I offer in the thesis.

3. Responsibility for Personal Health.

Between justice and efficiency

The antipaternalist harm principle bans only intrusions with personal choices that do not affect the interests of others. Hence, non-paternalist arguments in favor of nutritional prevention can be perhaps constructed pointing out the various ways in which the health consequences of personal unhealthy lifestyles *matter to others*. Personal health is valuable for society at large insofar healthy people are productive and can participate fruitfully to social cooperation and, in countries where health care is publicly funded, healthy people cost less to other citizens, who can employ resources in other morally recommendable ways⁹¹. Yet the social value of health does not show as such that public authorities *must* promote health by interfering with people's lives or that persons have special responsibility for their own health: only choices that affect others *unrightfully* must be prevented under the harm principle. That is, only choices that *harm others* are a legitimate target of public intervention. This chapter is dedicated to this topic: whether there is any *harm to others* involved in unhealthy lifestyles and whether there are other reasons for interference, weaker than harm, based on the interest of third parties on personal choices for health.

The answer to the former question will be sharply negative. Persons do not harm others by being less productive than they can be (section 3.1). Also, they do not harm others by being more costly to social welfare services (section from 3.2). In the first case, the argument is based on a distinction between legitimate and illegitimate ways to promote productivity (i.e. increase human capital). In the second case, the argument rejects responsibility based theories of distributive justice that deny compensation to those whose lesser welfare is due to their choices. Remember that people can be harmed if they are not given *what is due to them* (section 2.1.4): in responsibility based theories, people are harmed if they are forced to pay (e.g. through the fiscal system) for welfare compensations to other people who caused (i.e. are responsible for) their own diseases. I show why we ought to reject these theories, at least in the case of food and perhaps more generally.

Although I argue that unhealthy lifestyles are not harmful to others, such habits might anyway be targeted by public policy whenever they render welfare services grossly inefficient, e.g. if the presence of welfare services is among the reasons that explain the existence of bad choices (i.e. moral hazard). As in the last chapter, intervention under this brand would be justified by

⁹¹ See below in section 3.2.1 for important restrictions on this claim.

thoroughly beneficent purposes. This non-justice based welfarist *rationale* for intervention is discussed in section 3.2.4: despite its moral soundness, it does not fit too well the case of food choices for contingent (i.e. factual) reasons. In particular, it is debatable that people eat unhealthy foods because health costs will not be entirely born by them in case of onset of a nutrition-related disease. It seems there are neither moral hazards nor negative externalities associated with food choices - or anyway evidence to that effect is scarce.

The conclusion of this chapter will be the following: while inefficiencies due to externalities and moral hazard are legitimate targets for public authorities reinforcing the viability of health systems, public health policies cannot be based on allocations of responsibility and responsibility-sensitive prescriptive theories of just distributions.

Before discussing the effects of unhealthy food choices on productivity and health costs, I will reject – in guise of appendix - a possible claim of *direct* harm to others of unhealthy behaviors. According to the literature on “contagious obesity” that we already encountered in section 2.3.2 (esp. Christakis and Fowler 2007), unhealthy habits might spread in ways that are similar to infective diseases: by direct contagion. In this case, unhealthy habits would be a direct threat to other people and, since these habits are avoidable, there should be a direct duty not to engage in unhealthy habits stemming from the general principle of avoiding harms to others (Harris and Holm 1995)⁹². However, there is a crucial difference between infective diseases and unhealthy habits. Although unhealthy habits might indeed spread across populations in ways that can be modeled similarly to infective diseases, picking up an unhealthy habit involves a step of individual decision making which is entirely absent in the case of infection. I have argued at length in section 2.3.2 that the tendency of human beings to imitate others does not subtract from their autonomy: full control on individual choices is a chimera and countervailing impulses (or failing to) is a crucial part of what autonomy amounts to. So - for example - while there is a duty not to cross roads while the traffic light is red if children are nearby, there is no comparable duty in case only adults are present, even if adults would tend to cross with the red more often when others did. In case these adults crossed the road - no matter how strongly they are influenced by others - *they*

⁹² See also chapter 7 in Holland (2008), discussing a similar issue in the case of the ethics of immunization.

would put their life at risk. Claiming otherwise would be far too demanding: there is no duty of avoiding extreme sports on the ground that somebody else might be tempted to start those activities too. This can be easily translated in the case of unhealthy habits.

3.1 Is there a duty to be productive?

The health consequences of unhealthy diets, e.g. obesity or cardiovascular conditions, cause early retirement, absenteeism and smaller lifetime incomes⁹³. Each of these effects affects social productivity, broadly understood. In general, productivity measures the societal efficiency of employing resources: productivity in this sense increases as the amount of resources that is needed to produce the same outcome decreases (Buchanan 2011).

In this section, I will explain in which sense health economists speak of the effects of lifestyle diseases on productivity (Sassi 2010) and assess (1) if there is any *harm to others* in being less productive than possible and (2) if there is any reason *different from harm* to intervene against unhealthy lifestyles on the basis of productivity considerations. My answers are, respectively, negative and positive, in line with the overall thesis of the chapter and indeed the whole thesis. There is no duty to be healthy (nor *a fortiori* legitimate enforcement of this duty) on the basis that productivity associated with personal health is socially beneficial. Yet since the personal cost of disease is lower than its social cost, interventions may result in increased welfare because they *may* remedy to certain inefficiencies.

3.1.1 The goods of productivity

Increases in efficiency are social goods under some particular conditions: resources thus liberated can be employed for alternative morally recommendable purposes and/or potential losses are more

⁹³ See *infra* section 1.2.2.

than compensated by gains. Notice in fact that even gains in productivity could be detrimental, as in the case of detrimental decreases in expenses. Obvious cases that come to mind regard the employment of resources generated by gains in productivity in morally objectionable manners: we would not say that gains in productivity as such are good in - say, aggressive military regimes. In brief, productivity is only instrumentally good (Buchanan 2011). Assuming that the conditions above are met in the society that we are studying, let us look whether there is any particular duty emerging from the goodness of productivity and whom they may fall upon.

3.1.2 Unlashing human potentials vs. conscription

To anticipate the conclusion: there is no personal duty to be as productive as possible, at least in normal circumstances. The argument develops the following intuition: while it is a legitimate aim of public authorities to invest in human capital (i.e. productivity), it is illegitimate to constrain people's life in order to approximate their productive *optimum*. In totalitarian regimes, human beings were molded for the sake of the productive necessities of society: this is illegitimate conscription. Non-totalitarian societies must strive to increase their human capital by unlashng unexpressed human potentials while respecting the differences among individual life-plans. The only legitimate ways of increasing productivity in these societies is thus the removal of constraints on personal freedom that impede personal flourishing. Public schooling, for instance, allows the development of productive potentials of individuals who otherwise would not have access to education, yet the effect on productivity is just a side-effect of a liberating policy, rather than an explicit effort to produce individuals who fit the productive expectations of society⁹⁴.

The attention to physical appearance and bodily strength in past totalitarian regimes is no surprising in this light: totalitarian regimes submit individuals to allegedly higher needs of society and stigmatize those who do not comply with the collective efforts toward betterment. My argument makes explicit one kind of objection that we could use against totalitarian propaganda about perfect

⁹⁴ Notice that market-friendly views are utterly extraneous to this specific idea as well – contrary to what one might *prima-facie* believe. Market friendly theorists expect central planners (i.e. in the case of education) to be very inefficient in the provision of adequate offer of manpower.

bodies: it is not simply racist and/or sexist, i.e. discriminatory toward certain groups, but it also restricts personal opportunities for the sake of a societal *rationale* that could be extraneous to personal life plans. This is – in brief – the liberal argument against constraining lives for the sake of investments in human capital. While we may take the distinction between legitimate and illegitimate ways of investing in human capital to be a self-standing political principle, the values of personal autonomy and the role of “leading a life of your own” in human well being underpin its moral significance.

To discuss the issue of duties regarding personal productivity, we may note that although liberal philosophers often describe general requirements of distributive justice, they seldom tackle the issue of justice *in production*. This shyness depends partly on the normative consideration that I sketched above against illiberal conscription, partly on empirical assumptions about the efficiency of free markets (i.e. unconstrained market-allocation of jobs) in the production of a sufficient economic output. Duties of distributive justice, in this picture, would always start downstream of the efficient unconstrained production of wealth: justice would be always *re-distributive*. Hsieh (2008), however, pointed out that there might be *personal* duties of contribution to the productive enterprise, in particular when the contribution *can make a substantial difference* and *there are no available alternatives*.

For instance, in very poor societies afflicted by a high burden of disease, it is at least conceivable that a young brilliant doctor who can intervene ought to do so, and *for reasons of justice* rather than beneficence. That is, if he spends his days sipping gin-tonics in a hotel lobby, he is not simply avoiding a supererogatory duty, but committing injustice: after all his working time would rescue other people from extremely harmful conditions and there are no reasonable alternatives to his contribution. Notably, this is more than a theoretical possibility in countries where there are serious geographical inequalities and lack of skilled workers in poorer areas. For instance, recent health reforms in Turkey include a compulsory period of practice in the east or rural areas (where poverty is endemic) for all neo-physician (Guarducci 2013). This is indeed quite restrictive, but societies may want to claim some returns from their investments in physicians’ talents and their guarantee of the medical profession.

Let us assume for the sake of discussion that the latter verdict is morally correct. Can we repeat a similar point for the duty to be healthy and productive in societies where lifestyle diseases are prevalent? I believe that the answer is negative: in general, it is not true that individuals can make a substantial difference by making healthy choices, nor that there are no available alternative. Hence, there is no personal duty to be fulfilled. Let us see why.

First, although several requirements of justice are yet to be met, in richer society where lifestyle diseases are widespread the cost of any further improvement is generally higher than in the dire situation described above: no single person is likely to be able to improve its society alone *justice-wise*. The idea is simply that of a diminishing return of the use of resources on social results: perhaps in very dire conditions (e.g. a war) any investment will be wasted like water down a drain, but as soon as resources can be used for the good, it will in general less costly to do good where conditions are poorer than in richer societies, since simple ameliorations will make for large improvements in efficiency and larger goods. Consider the case of health: simple ameliorations in sanitation make for big differences in poorer countries, while each advance in life expectancy in richer society will cost a lot of resources as long as it may require broader change or technological breakthroughs. It is implausible that the gain in productivity due to better health ensuing from healthy *individual* choices will generate enough resources to address issues of justice in richer societies - at most they will benefit marginally some individuals.

If one is utilitarian through and through, he may want to *recommend* the pursuit of these lesser gains as well. However, utilitarians need not endorse the further claim that we should – as a matter of public policy – coerce people into benefiting others as much as it is possible. There is a fully utilitarian explanation of this distinction between personal duties and enforceable duties: as for how human beings are made (e.g. their motivational structure), it would be utterly counterproductive to try the enforcement of over-demanding duties. As a rule of thumb when reasoning about enforceable duties, there are only two kinds of them: the duty to benefit others when gains are substantial and costs are not individually excessive and the duty not to harm others.

As a further complication, if the adverse social effect is due to the *aggregation* of the choices of several individuals, no particular person seems to bear a personal duty to change his behavior, for

his effort will not suffice and somebody else's change would have the same effect. The duty does not fall upon anybody *in particular*. There are of course several normative disagreements regarding the allocation of responsibility in these cases of collective action. I believe that the philosophical research has not provided a satisfactory answer as yet to this problem (Glover and Scott-Taggart 1975) and the utilitarian will anyway be content with whatever solution addresses effectively the problem, aside from allocations of duties and responsibility. *In dubious circumstances* we should however decide for restrictions only if there is clear evidence that consequences could be *vastly* harmful, as it is the case for certain environmental issues: this is not the case here. I conclude that, unless the decrease of productivity due to lifestyle diseases is substantial and threatens some basic requirements of justice, there is no *personal* duty to care for personal health, nor (*a fortiori*) public authorities might enforce *restrictive* regulations on these bases.

3.1.3 The burden of care and lifetime incomes

The precocious outset of a chronic disease might force patients out of their jobs and/or other productive contributions to the social fabric, temporarily (absence) or forever (retirement). Is there any personal duty to protect one's own health as a consequence of this socially-relevant effect? Could this duty be enforced by public authorities by means of public health policy? I argued above that the answer can be positive only in very limited circumstances, for instance to insure the fulfillment of minimal requirements of justice. Instead, the simple fact that a higher ratio of active to inactive people is socially *favorable*, does not ground any duty for protection of personal health.

When the demographic pattern of a society is skewed toward children or the elderly, the productive segments of the population must carry a higher burden of care: the larger these segments, the lower the burden. Increased ratio active to inactive is thus positive both for productive individuals, who might enjoy shorter working times and/or a higher share of the total production, and/or for those who mainly receive resources, e.g. in term of quality of services (if more resources are channeled toward the care of the inactive).

There are some *provisos* to be made here. (1) The distinction productive/unproductive is not simple to make and the distinction working/non-working is just a rough approximation thereof. Retired individuals do contribute – sometimes substantially – to societal production, e.g. with volunteer work and family care. Also, people with chronic conditions can continue to function quite normally for a long time even beyond the formal working places, for instance in intellectual pursuits. So, the ratio active to inactive should be employed with caution, because early retirement due to health conditions is not as such a *social* loss. We do measure active contribution to the social fabric with incomes, yet this is a convenient operational shortcut rather than an interesting moral fact.

(2) Sometimes the claim that the ratio of active to inactive people constitutes a social preoccupation depends again on assumption regarding the sustainability of public sector spending, i.e. pensions. The *ratio* is however one of the many variables that influence sustainability and it is not in general true that its improvement is good, not even *pro tanto*: after all working is by definition a cost to individuals and the shorter they work, the better for their well being (keeping fix their incomes).

Furthermore, there might be a personal loss of income due to nutrition related diseases that is due to three effects: (1) discrimination against the obese; (2) absenteeism and early retirement, (3) lesser productivity due to negative feedbacks of disease with education and/or physical strength.

Higher incomes are social goods as well as personal goods, both in term of tax revenues and increased capacity to purchase products. Notice however that income levels is again a zero-sum game for societies (at least generally): if lean a is chosen for a high-paid job rather than overweight b, the effect for society of a's higher income levels is null. If a and b belong to two different countries, there is indeed an advantage to a's country, but again the aggregate international effect might be neutral or positive depending on distributive effects, which here I simply assume are neutral.

The issue of lifetime earnings will be tackled again in chapter 5 dedicated to social health inequalities: smaller earnings in disadvantaged people are indeed morally significant. Yet there is no personal duty to earn as much as possible: earning more is often associated with somebody else's earning less and, if not in conditions of extreme necessity as depicted before, by earning less no injustice is made.

3.1.4 There is no duty to be as productive as possible

In the last two sections, I have shown that there are no duties to be healthy on the base of productivity considerations, *a fortiori* public authorities cannot intervene on these bases. Having discarded these forms of “conscription”, let us have a look on whether public authorities can improve productivity for different reasons that have nothing to do with duties.

A non-intrusive campaign – for instance the delivery of reliable nutritional guidelines to the population, might have the effect of increasing personal and aggregate productivity: this counts *in favor* of the policy. The direct objective of the measure is beneficent and removes a cause of socially inefficient choices: lack of awareness⁹⁵. Yet the policy is recommendable also because the impact on GDP of chronic disease due to loss of productivity is high (estimates range from 1% to 8% in different countries, according to Sassi 2010): notice that no restrictive policy can be based on this argument, but yet the result cannot be plausibly considered a *drawback* of any food policy. In general, these policies do not count as enforcement of a duty but as improvement of personal condition, as in the case of schooling and the social investments in human capital.

Even stronger measures can be justifiable on grounds of efficiency: when the individual effect of an action is small (indeed, negligible) but the aggregate result at the population level is harmful, incentives to change behavior can be morally appropriate. If aggregate societal losses are high, than it might be reasonable to channel some resources to introduce positive incentives (e.g. reduction of taxes on certain healthy products), i.e. if the expected return is higher. Again, simple utilitarian considerations recommend these policies.

Although individual contribution is small, if the aggregate effect is socially harmful, public authorities may want to introduce incentives for behavior-change. The efficiency reasoning belong to two categories: they are dependent either by the mismatch between individual and social costs of unhealthy eating (e.g. moral hazards) or by the kind of coordination required in collective-action problems, where nobody alone could make a difference and somebody else could always substitute

⁹⁵ See *infra* section 2.3.2

every individual action. I discuss more at length the second idea in section 3.2 since it is formally identical in the case of health expenses. The pragmatic solution to the puzzle of collective action deserves instead a brief comment.

Although the fact that personal choices alone cannot make any difference excludes that there are personal duties attached to productivity-affecting behaviors, public authorities are legitimate to act on the bases of beneficent purposes if the stakes are very high. They would not be enforcing a duty but, rather, promoting social goods. What this argument can justify is however little: if the purpose is generally beneficent, mandatory programs are not justified. Notice that this is more than a thought experiment. China capital city Beijing re-introduced compulsory calisthenics for workers in 2010: at 10 am and 3 pm radios are transmitting exercise music as a measure of public health due to the growing costs of loss of productivity associated with obesity (according to Sassi (2010), China is the most affected country in this respect). This measure is however quite intrusive and the beneficent argument cannot go thus far.

3.2 The cost of diseases and the varieties of appeals to personal responsibility for health

Albert Hirschmann (1991), in his contribution on the rhetoric of reaction, has singled out a dialectic pattern that emerges here and there in the conservative arguments against universal welfare regimes: by providing public resources to the needy, the result will simply be their increase in number. According to this conservative argument, welfare services disincentive *personal responsibility*, pushing the worse-off in poverty traps and attracting newcomers to the welfare “rents” paid by the conscientious efforts of the others. In the words of Hirschmann, welfare regimes are thought to be *self-defeating* by the conservatives. This argument dates back to Ricardo’s discussion of the English poor laws, and re-surface from time to time against the modern welfare state (Barry 1997), notably in Murray (1984).

The debunking of this argument in the case of nutrition requires three steps: the distinction between a right-based and a broadly utilitarian version of the argument (in this section), the philosophical critique of the right-based version (section 3.2.2 and 3.2.3) and the empirical analysis of whether or not the utilitarian version of self-defection applies to our case (3.2.4).

The structure of this chapter mirrors my previous treatment of antipaternalism: this is not surprising because I already observed that an underlying theme of this work is the preferential treatment of philosophical issues in term of good and bads. As in the previous case, the *pars destruens* (3.2.2 and 3.2.3) will be conducted at a general level against theories of justice that may seem relevant for these issues whereas the *pars construens* (3.2.4) is more specific to food policy and concentrates on goods and bads of health policies against food lifestyles.

There are two readings of the argument from self-defection and indeed two main divergent understandings of what “responsibility for personal health” entails⁹⁶. The first reading is based on distributive theories centered on the moral importance of efforts, deserts and/or personal responsibility: people that do not take care of their health forgo existing welfare entitlements or anyway cannot be treated equally to those who instead look after their well being more accurately.

⁹⁶ There are indeed other readings of responsibility for health, yet I will show in section 3.2.5 that they can be reduced to these main kinds.

The second reading is instead a pure consideration regarding efficiency: given human psychological tendencies, providing health care to everybody independently from efforts to be healthy might be unsustainably costly because some or most people will exploit the opportunity to externalize costs and behave irresponsibly.

If I am correct, there is no defensible understanding of the first reading (I discuss two version of this argument, respectively in the next section and in the following), while the second reading is based on uncontroversial moral principles but do not apply to the case of nutrition. Remember what will be the result of this line of thought: I will have proved that there is no harm to others in being more expensive to public services, i.e. the harm generated by *unduly* drawing their resources because of unhealthy personal choices. Still public authorities can improve the design of the structure of incentives and disincentives to avoid societal losses: the foundation of the policy will be outright welfarist rather than justice-based.

The latter thesis has practical importance, since it suggests how to approach the design of appropriate disincentives on the bases of the cost of lifestyle diseases. The purpose of incentives cannot be to make unhealthy eaters pay what they *owe* to the public services and to their fellow citizens. Rather, the purpose of disincentives will be to avoid that the number of unhealthy eaters increases as a result of the existence of public health services. While the argument for intervention is morally appropriate in this form, I put forward some cautionary remarks as for whether it applies to food policy: evidence of effects on the prevalence of unhealthy lifestyles of public health services is scant.

3.2.1 What (if anything) can justify cutting in expenses

Before starting the philosophical discussion, I hasten to present a cautionary remark regarding costs. A common refrain of the chapter will be the social goodness of decreases in health costs. This seems uncontroversial but in fact the uncontroversial version of the thesis is the following disputable and arguably false common-place: spending less to achieve the same results is *always*

better. That this is disputable is most easily seen from this uncontroversial equation: someone's expense (and *a fortiori* public expenditure) is always somebody else's *income*. By substitution, the common-place becomes: paying somebody less or less people to achieve the same results is *always* better. This is not disputable: it is clearly false.

In the specific case of health, the health system is an important sector of any advanced economy, which contributes to national income and well being *independently* from the provision of health services. For instance, 9.3% of GDP can be attributed to health expenses in Italy according to the figures for 2010 of the Organization for Economic Cooperation and Development. There are people directly employed in the health care and a vast number of industries gravitating around its provision, down to biomedical research and development. Also, the health sector employs highly specialized people, involves the development of high-technology enterprises (i.e. biomedical industries) and includes services that are not easily de-localizable: for all these reasons, the claim that health expenses ought to decrease must be always taken with a grain of salt. Resources are scarce but this does not mean that health care is a bad allocation of those scarce resources.

Decreased expenditures are morally recommendable only under very specific conditions regarding who pays, who gets paid, and the nature of the service or good that is being exchanged. For instance, the same population health outcome can be achieved by the health system with less expenses in case less people get sick (i.e. the burden of disease decreases) and nothing else change (i.e. technology is fixed). Given the human suffering involved in disease, the gain normally offsets most losses of income in these cases. In other words, nobody would argue that it is good to keep a decent level of incidence of disease in order to rescue the health sector.

Also, if income is generated for powerful drug companies and expense is paid by poor tax-payers, distributive considerations might recommend or indeed require decreasing health expenses, although a different fiscal arrangement would achieve the same purpose as well.

Moreover, if there are competing societal goods that could be financed only if health expense decreases and if the gain from these goods is superior then any loss due to lost income in the health sector, then decreasing health expense is a social good: this is required by allocative efficiency alone rather than because shrinking costs as such are morally recommendable.

For the purpose of this thesis, I will simply *assume* that these conditions are met: a decrease in health expenses due to a reduced burden of disease is overall good (net of losses of income), the distributive effect of a decrease in health expenses is either neutral or positive, and there are morally recommendable alternative employments for resources that are spared by preventing lifestyle diseases, included allocations in other programs of the health sector. In this sense - and only in this sense - health costs due to unhealthy behaviors are social *bads*.

It is also important to highlight what instead I am *not* saying. The sustainability of public budgets is sometimes mentioned as a *rationale* for the thesis that health expenses should decrease. Given the epidemiological tendencies toward a higher prevalence of costly chronic diseases due to lifestyles and aging populations and the technology-rich nature of most biomedical innovation, we have spent, we are spending and/or we will spend *too much*. In other words, health expenses – be it public or, in some cases, private - are unsustainable. This is *not* what I am saying by claiming that health costs should be contained and that the cost of lifestyle diseases is one key political justification for preventive measures. Whether or not budgets are sustainable depends again on the structure of incomes and expenses: who gains, who pays (in case of public budgets: how public expense is financed) and the nature of services and goods that are exchanged. It is not in general true that sustainability of budgets requires the containment of expenses. In the case of personal budgets, investments (i.e. increased expenses) might improve sustainability in the long term, i.e. in the case of education and resulting higher incomes associated with better jobs. In the case of public budgets, tax revenues are not independent from public expenditures and indeed there are competing models in political economics about their relationship, ranging from liberal orthodoxy that expects quite generally a negative correlation⁹⁷ to post-Keynesianism that predicts positive correlation, and uncontroversially so in case of economic recession and for certain sectors of public spending⁹⁸. Certainly, the effect of decreasing public expenses on sustainability of public budgets is a debated topic in contemporary political economics, with on-going revisions of the common wisdom. While

⁹⁷ See Alesina and Ardagna (2010) for a general argument in favor of the liberal orthodoxy regarding the issue. They offer a theoretical model in which by cutting public expenses, tax revenues increases because investments increases under the prediction that tax rates will decrease after cuttings. Their theory is called “expansionary austerity”.

⁹⁸ Stuckler and Basu (2013) develop at length this idea with a focus on health spending, which has – according to their analyses – among the highest return.

the liberal model was common in policy guidelines from international financial institutions, new data following the implementation of austerity policies are forcing to amend previous estimates of the effects of budget cuttings⁹⁹.

What I am saying in this chapter is independent from the solution of this riddle that will turn out to be correct in any single circumstance. When I speak of viability of the health system or the problem of health costs, I will be uncommitted to the particular version of these concerns that stems from contemporary preoccupations with the sustainability of public budgets. I will simply assume that there are overall better ways of using resources, either privately or publicly, than curing lifestyle-dependent chronic disease and/or that the decrease of costs depends on a lesser burden of disease, which I assume to be a so substantial gain in well being to trump the potential negative effects of decreased incomes in the utilitarian calculus. Notice that if the liberal orthodox model relating public spending and their sustainability is correct, there will be a further argument in favor of decreasing expense in countries where health care is public. If not, still there are general conditional reasons to look at efficiency, reasons that are unrelated to financial sustainability strictly conceived. If indeed “efficiency” means simply “better ways of spending resources” (as it should), then efficiency is an entirely uncontroversial value. Still we ought not to smuggle into the concept of efficiency morally disputable claims about the sustainability of public budgets.

3.2.2 Responsibility and justice: desert based theories

Desert based distributive theories generally include the claim that people should be rewarded for their efforts, i.e. that their resources and/or well being should match how much they are talented and/or work hard (Daniels 1978). The argument in the case of lifestyle and health goes in this way: it is unjust that those who take care of their health and those who instead conduct unhealthy habits pay (and receive) the same to (from) the health system. The reasons why this is unjust depends on whether the theory is *resourcist*, i.e. personal resources for welfare should match personal efforts,

⁹⁹ Blanchard (2013) on the International Monetary Fund calculations regarding the “fiscal multipliers” and their recent revisions. In chapter 4 of Stuckler and Basu (2013) there is a general introductory discussion of the issue.

or *welfarist*, i.e. personal well being should match personal efforts¹⁰⁰. In the first case, resources are not allocated according to efforts because they are given equally to those who take care of themselves and those who do not, while in the second case, the resources that are provided interfere with inequalities in well being that tend to be morally appropriate if left alone (e.g. unhealthy-living people would pay for their care thus decreasing their welfare).

Notice that the welfarist version of the theory is not as harsh as it may seem: it does not entail that people *deserve* to get a severe disease if they are reckless, only that they should pay for their care and forgo other opportunities for well being if they do. If they cannot pay, there could be non desert-based reasons to provide health care, e.g. compassionate reasons, or even desert-based reasons, if we maintain - as we should - that nobody deserves to be sick. For the purposes of this chapter, I will keep the two versions together and criticize them independently from the “harshness critique”: the main objection centers on the very notion of effort and its application to unhealthy behaviors, which appears in both versions. The objection shows that efforts and desert cannot make the moral work they are supposed to do in desert based theories, at least in the case of health behaviors.

Consider the well-known empirical correlation between early child-bearing and incidence of breast cancer¹⁰¹: women who conceive earlier in their life have significantly reduced chances of getting breast-cancer (Kobayashi et al. 2012). Yet we would not say that early child-bearing is an appropriate effort that ought to be rewarded. Moreover, we would not say that, by postponing pregnancies, women are behaving recklessly and should pay if a breast cancer occurs: women do not forgo their welfare entitlements if they decide to post-pone pregnancies or not to give birth at all. Yet why should this be so in desert based theories? After all these women are not acting as they should in order to prevent a serious disease, and those instead who carefully got pregnant earlier on might have forgone other valuable life opportunities doing so. If the desertist finds this conclusion implausible – as indeed he should - he must explain why it is so. Which is the relevant difference, in their theory, between postponing pregnancies and eating too much fat?

¹⁰⁰ Here as in the following I will not enter in the debate regarding the *appropriate* focus of distributive justice (Sen 1979, Cohen 1989, Daniels 1990). In particular, I will not distinguish between a focus on resources and a focus on well being: as far as I can see, that distinction is not crucial for the purposes of this work.

¹⁰¹ I elaborate an argument described in Wilkinson (1999) for the case of tobacco prevention.

The difference-makers must be something different from “efforts” to be healthy, i.e. acting according to health guidelines even at some cost. It seems that there is some moralizing judgment that falls upon unhealthy eating but not upon avoiding or postponing pregnancies that is doing some work beyond the stage of the desertist verdict. For instance, the social perceptions of the two activities might be such that the first is considered inappropriate while the second is deemed to be respectable¹⁰². Is there any reason to believe that the social perceptions are morally appropriate? After all, the most common complaint about unhealthy eaters is that they are costly: but this applies to postponing pregnancy as well, so it cannot count as vindication of the asymmetric social perception. Healthy nutrition as appropriate effort that deserves rewards seems to depend on moralizing relics of a worldview that condemn *gluttony*: rather than a desert-based theory, the targeting of unhealthy eating seems to rely on a sin-based conception of personal duties.

A possible reply of the desertist is the following: while there are indeed *pro tanto* reasons to claim that by postponing pregnancy, women act recklessly and so they forgo some entitlements to resources for care, there are independent reasons to protect women reproductive choices, e.g. on the bases of the centrality of reproductive choices for personal liberty. So, an all-considered judgment can rescue desertism from its implausible consequence, since it gives only a weak *pro-tanto* weight to recklessness. While perhaps this strategy works to rescue the claim that desert-based theory do capture some moral relevant facts, the price is at the end that desert-based considerations are always revisable taking into account broader issues, which at the end is what we were claiming: desertism is not an appropriate theory to discuss personal distributive *entitlements*. The pretense of the desertist was to extract a theory starting from morally relevant *facts* regarding deserts: yet to make it plausible it must either to take on board several other facts unrelated to efforts (e.g. facts regarding the social desirability of certain activities), or put theoretical restrictions on the concept of desert making the theory less than intuitively appealing.

This is also what is shown by the famous “fireman” counter-example: what is the difference between a fireman who do not protect adequately his life to save somebody’s life and a rock-climber that puts his life at risk to challenge previous achievements of his fellows? The response

¹⁰² Also, it is richer women that gives birth later – and people may tend to judge differently (arbitrarily so) risks that are taken by rich and poorer people.

that some higher compensation in case of accident is due to the first is morally correct – I think nobody disagrees - but it does not depend on efforts at all. Rather, it depends on considerations regarding appropriate ways to create certain social goods, e.g. incentivizing dangerous but useful jobs like firemen. What is good, praiseworthy, etc. does not depend on independent facts about *desert* but on reasons regarding the social goods that we want to achieve by praising something as good, deserved, etc. Perhaps we can decide that unhealthy eating should be targeted by disincentives, but this cannot be due to considerations based on desert-based allocations, since there is no fact of the matter that explains the latter notion.

Eventually, one might reply that there is a similar theory which entails the same consequences but does not mention efforts, only *costs*. Acting to be healthy (e.g. jogging) is a cost to many individuals, and if this is not taken into account in payments for health services, some healthy-living people will simply pay *twice* for the same service while there is no morally relevant difference to justify different costs. This is unfair.

The objection to this version of the theory is that it seems to depend on disputable personal conceptions of well being that keep in high esteem binge-drinking and/or sedentary activities: only this assumption justifies the claim that healthy activities are always a considerable cost to individuals. Yet there are many people who enjoy being abstemious and being physically active: for those, the double-counting objection does not seem to work. Perhaps, it works only for healthy-living people who actually enjoy unhealthy activities, yet it is unclear why in this case their behavior cannot be taken at face value as genuine expression of their preferences.

The issue of double cost is however serious, but its moral relevance does not depend on considerations regarding fairness. The idea is that tax-payers contributing to health care systems are participating to an insurance schema that will cover unexpected catastrophic costs. Yet there is an asymmetry of information here, unhealthy living people do know that their chance to get sick are higher, and yet pay the same: this might render the system unsustainable in some particular

cases¹⁰³. This is again a consideration regarding efficiency however, according to my general thesis.

3.2.3 Responsibility and justice: luck-egalitarianism

Historically, luck-egalitarianism is a theory of distributive justice that unfolds a small comment of Rawls in *A Theory of Justice* (1971): any inequality which is due to external circumstances rather than personal choices is morally *arbitrary*. That is, *if* we assume that inequalities require justifications, un-chosen circumstances cannot provide any. Notice the key difference with desert-based theorists: luck-egalitarians do not focus on proportionality between personal choices and outcomes, either in resources or wellbeing. Cases where two people are equally well-off, one because made good choices, the other for pure fortune, are beyond the scope of the theory: i.e. the difference is not morally relevant for luck-egalitarians. Luck-egalitarianism is an egalitarian theory in a strict sense: it assumes equality as the benchmark and maintains that any other distributive patterns require moral justification.

Also luck-egalitarians debate on whether the appropriate focus of distributive justice should be on resources, welfare or opportunities for welfare (Dworkin 1981, Arneson 1989, Cohen 1989). However, they all agree at least on the following proposition:

(LE) if somebody is worse-off (or master less resources, etc.) than others *for reasons that are unrelated to his own choices*, then he must be compensated on grounds of justice (Barry 2001).

There could be cases in which people ought to be compensated for their condition even if a personal choice explains it, but *at least* inequalities due to un-chosen circumstances are

¹⁰³ See *supra* section 3.2

unacceptable for luck-egalitarians, because un-chosen circumstances, background conditions, natural differences, etc. are *morally arbitrary*.

The family of luck-egalitarian theories collects a basic intuition of desert-based theory of distributive justice, namely that personal responsibility, efforts, desert, etc. weigh morally, and apply a quasi-corollary, namely that bad luck does not weigh morally (since it excludes personal responsibility), to a broad class of inequalities, encompassing even “natural” misfortunes that were previously expunged from distributive considerations.

Although the talents that are endowed upon people are sometimes pure natural phenomena, i.e. nobody is causally involved in their outset, still injustice can occur in these cases for luck-egalitarians if ensuing inequalities are not remedied, i.e. by denying misfortunate individuals *what is due to them*. This is not the position of other theorists of justice (e.g. Rawls 1971): differences in natural talents are perhaps bad but never unjust, only differences that are under social control can ground duties of justice because duties of justice rule the structure of social cooperation and nothing else.

The distinction that was made by Parfit (1984) between *telic* and *deontic* egalitarianism is quite helpful in tracking the latter divergence. Telic egalitarians focus on inequalities whatever their origin, and indeed even in cases of inequalities of people belonging to different societies, countries and even ages. Deontic egalitarians are instead interested in the ways in which inequalities are brought about in the societal intercourses between persons, i.e. whether inequalities are unjust depends on whether there were unrightfully determined. Luck-egalitarianism belongs to telic theories since luck-egalitarianism does not put any restriction on the scope of the theory, i.e. the causal relationships occurring between the subjects whose inequalities are under discussion does not matter. A moderate version that we can keep in mind is that of Dworkin (2011): natural inequalities can be unjust, namely when they could be remedied and they are not. This is deontic and avoids unpalatable claims about individuals that are causally independent; still it retains the rejection of the natural vs. social distinction which is typical of other luck-egalitarian theories.

The moral recommendations of luck-egalitarianism are generally thought to be politically progressive: Dworkin (2011) argues that the theory was explicitly designed to employ a basic

conservative intuition about responsibility to claim for vast re-distributive programs and foster social and economic equality. Yet some features of the theory can be employed in rather different way by denying compensation to those who have been imprudent or put at risk their well being: this is because bad choices in a vast number of fields are more frequent among the socially disadvantaged. This is also why the theory is relevant for discussing lifestyle diseases and public health policy.

For instance, it has been argued that luck-egalitarianism singles out at least a *pro-tanto* reason to de-prioritize patients in transplant waiting list if their condition is due to their lifestyle (Segall 2009). More generally, luck-egalitarianism has been proposed as the foundation of a “liberal egalitarian” approach to public health (Cappelen and Norrheim 2005, Buyx 2007), i.e. public health systems should take into account personal responsibility for health in the allocation of resources *for reasons of justice*. While the second claim is the proposition that I will attack in this section, it is worthy to spend some words on the first issue, transplants, to understand what is at stake here (and for completeness, since the issue is indeed frequently addressed discussing the ethics of health policy and lifestyle diseases).

3.2.3a Luck, choice and scarce vital resources

Transplantations are very scarce resources: demand far outweighs the raw material which is available. Which factors are morally relevant for setting up a transplantation waiting list? This question is as difficult as any other moral question can be: it involves dramatic consequences and requires subtle reasoning regarding which lives are worth-saving. If the question is put in this form, it should be clear why *any* criterion which takes into account responsibility is very problematic: nobody after all would say that people who willingly damaged their health are not worth-saving. Yet this is exactly what luck-egalitarians, if pressed, must admit: this would require ample revisions of common medical practices because – things standing - the majority of waiting lists are responsibility-independent. It does not matter if you are the responsible of the accident that nearly killed a passerby: both you and the passerby will receive the same amount of care. This is wise for

a series of reasons, not the last because hospitals are not courts and they should not be for reasons of efficiency (i.e. speed in intervention).

The case of lifestyle diseases in transplant are in one sense more complicated: people with a health condition due to unhealthy habits might have a lessened life-expectancy than homologous patient whose condition is due to chance for clinical reasons, e.g. their overall clinical condition is worse because they have multiple damages to different organs. In this case, the first might be de-prioritized in waiting lists on utilitarian grounds (e.g. maximizing aggregate utility) under the common assumptions that years of life, or quality-adjusted years of life (QALY), are a good proxy of utility and that the latter approximate crucial social goals. Though this does not regard directly the argument that I am making here, I mention that this is not as nearly as unproblematic as it may seem: it involves controversial judgments on which life are worth saving, for instance those that are longer and with less suffering overall. It also depends on the claim that people would prefer a shorter but healthy life then a longer but disease-burdened life and permits inter-personal trade-offs between persons. This might be correct in some cases but it is not necessarily so always, and so it is disputable as an allocative criterion which should capture what is best for society (Harris 1987). Responsibility-sensitive list would by-pass entirely these quandaries and just de-prioritize patients with unhealthy lifestyles.

3.2.3b The anti-egalitarianism of luck-egalitarianism

Although responsibility-sensitive public health is explicitly associated with luck-egalitarianism in the literature, there is a logical step from that theory to the practical principles of making people pay for their self-inflicted health condition and/or de-prioritize them in the use of scarce resources. The theory simply states that un-chosen circumstances do not justify inequalities, yet it is silent on the fate of inequalities which instead are due to personal choices. It is thus incorrect to argue that:

As for inequalities resulting from freely chosen behavior, such as lifestyle choices or risky behavior (so-called “option luck”), these do not warrant compensation and individuals should have to buy private insurance against possible resulting negative consequences [under LE, *mine*]. In this theory, personal responsibility is one of the most important criteria for allocation in medicine. A public healthcare system need compensate only for treatment of conditions that do not result from chosen behavior. (Buyx 2008, p.872)

The logical step to Buyx’s conclusion depends on the claim that the distributive criterion LE of luck-egalitarianism is a self-standing political principle that exhausts the scope of distributive justice – a further axiom that many luck-egalitarians would indeed introduce. Now, consider the consequence of the conjunction of the latter assumption with LE in the case of lifestyle diseases: perhaps there are beneficent reasons to help those who fall prey of some health condition because of their choices, yet welfare compensation is not *due* to them as a matter of justice. Yet duties of beneficence are generally supererogatory, they are not enforceable through fiscal systems and the power of state.

The application of LE to our case study is thus the following: nobody ought to be forced to pay for welfare compensations to somebody whose welfare losses are attributable to bad choices. It is a duty to pay for fulfilling requirements of justice, yet forced beneficence is illegitimate¹⁰⁴. To correct this distortion to luck-egalitarian justice where there is a public health system in place, we may want to increase costs of unhealthy activities so individuals who are responsible of their disease will not extract illegitimately resources from others. Notice that if there is a non subsidized health system (e.g. all services are paid by consumers and their private insurances), there is no distortion of this kind. The luck-egalitarian would however hasten to notice that a non subsidized health system is highly unjust: people will face alone the consequences of pure luck within that system. Luck-egalitarianism will thus recommend a subsidized health system with responsibility-corrections as a general philosophy of just health systems.

¹⁰⁴ Though see *infra* section 3.2.

The main problem for luck *egalitarians* that would like to apply their theory to health issues are the embarrassing anti-egalitarian consequences of their principle of distribution: those who are denied services under LE belong disproportionately to socially disadvantaged groups. This is exactly what the literature of social inequalities in health behaviors shows. Bad and outright reckless choices are systematically more common among the poor, in health as in other fields (Anandi et al. 2013). Luck-egalitarian theorists might bite the bullet and accept this consequence, thus jeopardizing the egalitarian credentials of their theory. A more common move will be to deny that lifestyles are *really* due to choice in case of social determination: disadvantaged people are not responsible for their unhealthy choices (e.g. Roemer 1993, Brown 2013).

This should be a familiar move by now: it mirrors the deontological antipaternalist retreat to soft-paternalism in cases where choices are clearly bad for personal welfare. There is a conceptual kinship between the distinction soft-hard paternalism and the distinction that grounds luck-egalitarianism, i.e. choice vs. circumstances. In both cases, it matters morally whether a certain act is a genuine autonomous choice or whether it is somehow defectively so. In the first case, the antipaternalist argues for inviolability and the luck-egalitarians attributes responsibility, while in the second case the antipaternalist retreats protection whilst the luck-egalitarian attributes consequences to luck.

In this section, I will argue against the luck-egalitarians on the bases of this fundamental thesis that he shares with deontologist: that autonomy is a morally important *phenomenon* that makes weighty moral difference respectively, in distributive justice as much as in legitimacy of interference. Autonomy is indeed very important, but there are no simple facts out there that we can use for moral judgments: these facts are generally not independent from our underlying normative assessment of the situation.

In particular, I attack the move of denying autonomy in cases of (social) determination of health behaviors. In most cases, this thesis is incomprehensible or plainly wrong: it relies on a theory of what autonomy is which is incompatible with the laws of nature or, when it is not - it does not entail that people are less than autonomous in the case of bad health choices due to social structure. Luck-egalitarians must accept the embarrassing consequence of their theory in case of social

inequalities in health behaviors, thus giving up the egalitarian nature of their theory. A better option would be doing away with the theory altogether - as I will argue in the next chapter.

In the following, I move a series of objection to luck-egalitarianism, starting from some general problems down to the issue of social inequalities in health behaviors. Toward the end, I will argue that whatever its merits, luck-egalitarianism cannot be a reconstruction of the purposes of egalitarian policies (Anderson 1999, Scheffler 2005) and *a fortiori* luck-egalitarianism cannot be the correct reconstruction of liberal-egalitarian health systems, as proposed by Buyx (2008).

Imprudent fireman

The argument that I employed above (section 3.2.2) to show that desert-based theories must resort to external standards of social goodness to suspend responsibility for welfare in cases like the dangerous but socially beneficent behavior of firemen shows even in the case of luck-egalitarianism that the *autonomous nature* of choice cannot be all that matter to their distributive proposal (LE).

Segall (2009) has proposed to substitute “reasonable avoidability” to “autonomous choice” as analysis of responsibility to save the *phenomena* within luck-egalitarianism. For instance, it is not reasonably avoidable to be fireman, since it is highly undesirable that nobody does it. Even if it works, this is mere re-labeling, and do not disprove our point: the luck-egalitarians cannot look out there and decide about distributive just patterns simply looking at the autonomous nature of personal choices. Reasonableness, in “reasonable avoidability”, includes considerations regarding facts that are unrelated to the distinction choice-circumstance. For instance, it includes judgments about the social desirability of there being firemen. This is of course *compatible* with luck-egalitarianism, since the latter is just a theory about the moral irrelevance of external circumstance, but yet the theory becomes much more complex than previously imagined and cannot claim intuitive appeal, let alone “collecting the intuition of the conservatives for progressive purposes” (Scheffler 2005).

Abandonment of the imprudent

Luck-egalitarianism seems to entail that people who are reckless or imprudent should not be compensated for their lesser welfare, yet this is harsh in cases where the suffering is severe, as in the case of diseases. In this case, the objection is more convincing than in the case of desert-based theories: the luck-egalitarian is not interested in matching well being and responsibility, so he cannot argue that it is morally relevant for his theory that nobody deserves to get sick.

Rather, he must employ non luck-egalitarian considerations to grant care to the imprudent. This however shows that luck-egalitarianism, if it is relevant at all, is just one of the many distributive principles that ought to be taken into account when deciding allocations. Also, luck-egalitarian recommendations can be turned down whenever other principles command differently (Scheffler 2005). Whether or not bad health is due to choices (i.e. voluntary autonomous acts) is perhaps one among other considerations that we may want to employ in distributive discussions, but the moral weight of these facts is hardly unique. Certainly, it is not the case that individuals forgo their welfare entitlements *simply* because their choices were bad: a *purely* luck-egalitarian allocative theory has little to recommend in its favor, so it is a weak base to ground a “liberal egalitarian” public health.

Socially-determined autonomous choice is not an oxymoron

So far I have argued that the autonomous nature of a choice is hardly a morally *unique* fact as far as allocative decisions are concerned. Here I will argue that this alleged fact is not nearly as uncontroversial as it is imagined.

The distinction between autonomous and non-autonomous choices is itself drawn, where the drawing is possible at all, starting from further prescriptive considerations. The question “is x responsible for its choice y?” is not conceptually independent from the question “is y an

autonomous choice of x?” This was explained in section 2.1.1 starting from compatibilism: there is no *sui generis* phenomenon as x’s choices that can serve as a benchmark for judgments of autonomy. First, dependency on external factors or determination does not exclude autonomy. Second, the distinction between autonomous and non-autonomous choices is *de facto* made resorting to moral considerations. Let us study these point is turn.

Consider the case of social inequalities in unhealthy behaviors. Which mechanisms do explain the recurrent pattern of increased incidence among poorer people? The question is surprisingly little studied, yet Pampel (2010) in a review has listed self-medication to stress and heavier discount of long term benefits among the most likely reasons why socially disadvantaged people “indulge” in unhealthy behaviors. But do these mechanisms exclude autonomy and thus ground that “flight for autonomy” that would rescue luck-egalitarians from the implausible consequence of their theory applied to health inequalities?

In the case of self-medication, the behavior looks like an appropriate rational response to adverse situations. Levels of stress due to poor working and housing condition and financial strains can be addressed by recurring to short-term reliefs (e.g. alcohol consumption) when better options are not available. This is certainly worrisome but it is as autonomous as it can be. If our intuition in case of disease resulting from this predicament is that the person was not forgoing his entitlements by living unhealthily, this must depend on the moral problems associated with the underlying adverse conditions rather than the fact that the choices were not fully autonomous: indeed, they were.

The same could be repeated for heavy discount of future losses and/or benefits: independently from unhealthy lifestyles, poorer people do expect to live less and their earnings are anyway smaller. Discounting future harms very heavily is fully rational if this is so: unhealthy lifestyle, again, are chosen. More precisely, the bare fact of socio-economic determination is not sufficient to exclude responsibility.

Anandi et al (2013) provided the most recent experimental evidence that poverty impairs cognitive functioning: this might explain why choices are worse among the poor. The underlying model that they propose is utterly simple:

The poor must manage sporadic income, juggle expenses, and make difficult trade-offs. Even when not actually making a financial decision, these preoccupations can be present and distracting. The human cognitive system has limited capacity. Preoccupations with pressing budgetary concerns leave fewer cognitive resources available to guide choice and action (Anandi et al 2013, pg. 976)

What is crucial here is that one cannot conclude from the truth of this model (if it is indeed true) to the non autonomous nature of the poor choices: cognitive impairment due to stress and limited cognitive capacity are a common phenomenon, indeed universal, which is simply more frequent among the poor given their dire circumstances. Nobody would say that my bad financial choices were non-autonomous because I had just finished a demanding chess game: this is a reason why they were bad that does not impinge on their autonomous nature.

More generally, if in cases of social determination we believe that the moral appropriate response is *not* the denial of compensation, this cannot depend on facts about the non-autonomous nature of socially determined choices. Luck-egalitarians must eventually decide either to accept moral consequences that are incompatible with deep-seated egalitarian intuitions (i.e. social determination of health is worrisome) or to distort the concept of autonomy (e.g. in order to deny that social determination is compatible with voluntariness) until it becomes obscure and unrelated with our common judgments about it.

Furthermore, if compatibilism about free will is correct, that obscure notion does not possibly single out any real phenomenon: no choice is autonomous if it requires *sui generis* causal powers of the will (e.g. full control). While some luck-egalitarians may want to accept this conclusion and conclude that no inequality is justified, it remains unclear why a moral theory relying on a distinction which never applies to the world as we know and as it is can be true. This would be the ultimate vindication of the progressive employment of the theory, but the vindication is hardly viable for those who retain intuitions about responsibility since it amounts to argue that the set of autonomous choices is empty.

Naturally, there could be other ways of arguing that the health behaviors of socially disadvantaged people are not appropriately autonomous, for instance recurring to more sophisticated theories of responsibility. This is very natural: once we understand there is no *sui-generis* free-will, we would like to know when we can still apply the concept of autonomy and when we cannot.

Here I mention just the proposal due to Rebecca Brown (2013) that relies on the theory of freedom as “fitness to be held responsible” by Philip Pettit (2001). In Pettit, people are fit to be held responsible only if the circumstances of their choices are compatible with the following aspects of freedom:

1. ‘the freedom of an action performed by an agent on this or that occasion,’
2. ‘the freedom of the self implicit in the agent’s ability to identify with the things thereby done, rather than having to look on them as a bystander,’
3. ‘the freedom of the person involved in enjoying a social status that makes the action truly theirs, not an action produced under pressure from others.’

Brown (2013) argues that the evidence regarding the unconscious nature of most food choices and their dependency on environmental clues is incompatible with the requirement (2) and that social determination of health behaviors is incompatible with requirements (3). Yet this cannot be what Pettit had in mind with his theory, simply because it would entail that people are never fit to be responsible. I already explained above what is the flaw of the horn of Brown’s claim pertaining social determination. Also, in section 2.3.2 I conducted an extensive discussion on why behavioral and psychological evidence regarding food choices does not show that people are not in control of their choices but only that these choices are often very bad. The same discussion proves here that food choices are not, in general, cases where people observe their action “as bystanders”, as in the elegant formulation of Pettit. Even Pettit’s theory cannot be used to rescue luck-egalitarianism from its non-egalitarian consequences. The theory cannot be so rescued simply because disadvantaged people are usually in full control of their life.

Brown's conclusion, however, are entirely compatible with mine:

We might have other reasons for punishing bad behavior, or for introducing more of a role for personal responsibility into healthcare: it may be more economically efficient, or it might help preserve the view of ourselves as autonomous individuals in control of our own lives. However, unless we consider a form of as-if responsibility, and not the more substantive merit-based form, this will require agents to have sufficient freedom in order to be fit to be held responsible. (Brown 2013, pg. 4)

Although in this case the practical consequences of the two approaches (e.g. upholding responsibility-sensitive theories and denying autonomy vs. upholding autonomy and dropping responsibility-sensitive theory) are overlapping, the discussion conducted so far is crucial to the general purpose of this thesis of discussing principles that are *in general* relevant for public health fighting unhealthy behaviors. Responsibility-sensitive theories are a key pillar of an influential approach to public health that I will try to debunk in the next chapter. While in this specific case the practical consequences of the theory may seem overlapping (if Brown's claims were correct), it is crucial at this point to move a full-blown attack to responsibility-sensitive approaches to public health: their significance goes well beyond the detailed discussion of the arguments for intervention in the case of unhealthy behaviors.

Roemer's classes of references

A different approach to the luck-egalitarians "flight from autonomy" is Roemer's (1998). Roemer has proposed to allocate responsibility to individuals to the extent their personal behavior deviates from the norm *of their own group*. For instance, if 60% of people in a certain socio-economic segment smoke, then any individual belonging to that group will be responsible at 40% if he smokes. Similar discounting ought to be made for whatever class of reference is known to have significant correlations to the outcome under discussion. Roemer's proposal should rescue luck-

egalitarianism against the egalitarian objection regarding social stratification of bad choices and improve the sensitivity of the concept of responsibility employed in the theory.

The same approach can be employed to address another limitation of the theory due to the existence of conditions with multiple causes. For instance, lifestyle will never be the only cause of sickness: genetic predispositions are often involved. Assume that two persons, a and b, have respectively an increased 20% and 40% chance of lung cancer if they smoke because of mutation A and, respectively, B. Then, if they both smoke and they get a malignancy, the responsibility for the outcome should be discounted of, respectively 20% and 40%.

Yet the proposal of the class of reference has two problems: (1) in the case of social determination, it confounds correlation with causation; (2) its extension to all kinds of determination (i.e. different from social determination) is utterly implausible and entails that responsibility never exists.

(1) Assume for the sake of the argument that if a habit is *determined* by social status, then it is correct to discount responsibility. Yet the epidemiological evidence does not say anything as such about *determination*: there could be a common cause of both the social status and bad choices (e.g. laziness, as argued by the moralizing conservative) that is relevant for responsibility. Also, the mechanism mediating between social status and health behaviors might be very different in each case, and perhaps only sometimes it will be correct to claim that indeed the choice was not properly autonomous, as discussed above.

Roemer's proposal applies more smoothly to other cases, where indeed we know that the correlation is causal and cannot involve steps that could be attributed to personal choices (e.g. asbestos exposure - cancer), but does not apply to the correlation between social status and health behaviors, so it does not rescue luck-egalitarianism. Notice that if Roemer replies that social determination is special for reasons that have nothing to do with responsibility, then my point would be anyway proven: what matters ultimately is the underlying social disadvantage, rather than the autonomous nature of choices.

(2) How do we decide the appropriate classes of reference for discounting responsibility? A smoker will belong to a certain economic group, will be female or male, young or old, prone to

addiction or not, etc. and for each class there might be a statistically significant effects on the chances of smoking. Why does Roemer focus on social status? It cannot be that *social* determination is particularly relevant for discussing autonomy: indeed in most cases it is not all, if the point (1) is correct. So either we choose *ad hoc* some classes or we consider all relevant classes to discount responsibility. Yet this latter option leads to an implausible result: nobody is ever autonomous. For if compatibilism is true, for each behavior, each individual must belong to some classes of references that *jointly* determine the behavior. This is because there cannot be a residual class of reference dependent on an irreducible factor of “personal choice”: it is most likely that nothing of that kind exists. Again, the coherent extension of the theory entails that nobody ever chooses. While this is an important metaphysical position (e.g. free-will eliminativism), it is at least bizarre to build up a moral theory from a distinction that is never instantiated.

The value of equality

More generally and aside from the particular conceptual problems of luck-egalitarianism, the theory does not seem an appropriate reconstruction of egalitarian policies even if it can be made coherent (Anderson 1999). This is not *as such* a compelling moral argument, but suggests that something has gone wrong in the discussion about the ideal of equality in public policy conducted under luck-egalitarian assumptions. The moral intuitions about socially-determined autonomous choices show that egalitarian concerns typically do not take the form of searching a correct allocation of responsibility and appropriate distributive patterns that reflect the latter.

Egalitarians are chiefly interested in how inequalities, especially socio-economic inequalities and distinctions of status, impair the perspective of the disadvantaged and bring about social bads (O’Neill 2008). This observation is at the end a comment over the labeling of a theory: a dispute over the brand of “egalitarianism”. Yet labeling matters, if not in philosophy, at least in public debate: I hope to have provided some evidence as for why luck-egalitarianism is not egalitarian after all, especially in health policy.

Subsection Conclusions

We may sum up the conclusion of sections 3.2.2 and 3.2.3, the *pars destruens* of this chapter, relying on a distinction that Scanlon (1988) has made between “responsibility as attributability” and “substantive responsibility”. The first sense of responsibility regards “whether some action can be attributed to an agent in the way that is required in order for it to be a basis for moral appraisal” (Scanlon 1988, pg.248), the second sense instead regards outright attributions of duties and depends on moral reasoning. We say that an agent *x* is responsible for a choice in case some conditions about *x*’s agency are satisfied (responsibility as attributability), while we say that a certain choice is *x*’s responsibility if there are moral reasons for *x* to act in that way (substantive responsibility). In the last sections, I argued that people are responsible for their unhealthy lifestyle in the first sense (because the “flight from autonomy” move of luck-egalitarians does not work) but they are not responsible in the substantive sense because there are no moral reasons that generate duties on them to behave differently (i.e. responsibility-sensitive theories are inappropriate in case of social health inequalities).

Although practical guidelines of this conclusion overlap with those of luck-egalitarians who deny the autonomous nature of unhealthy lifestyle, my proposal has a number of features that make it superior. In particular:

- (1) it does not attribute to disadvantaged individuals a defective capacity for autonomous agency. In other words: it does not entail that disadvantaged people are somehow excusable for their weaknesses. Rather, it entails that there is nothing that they should be excused for in the first place.
- (2) it does not distort the concept of autonomy to save the (egalitarian) moral *phenomena*, but instead it is compatible with conceptions of autonomy and responsibility that are fully compatible with naturalistic world-views.

(3) last but not least, it suggests that egalitarian thought might be on a wrong track if it equates – even for progressive purposes – social policy with the allocation of responsibility.

3.2.4 Efficiency: moral hazard and negative externalities

The conclusion of the last sections does not show as such that public authorities cannot intervene on the basis of others-affecting behaviors, only that these interventions cannot be justified on the bases of distributive right-based claims. Indeed there are other arguments, broadly utilitarian, that may justify intervention. In particular, there could be particular losses in aggregate well being when the effects of personal choices affect other people - for a series of theoretical reasons that I explain in the current section. Although this version of the argument from responsibility is the only defensible version of conservative complaints about self-defeating welfare services, it is doubtful whether the theoretical models that ground preoccupations about these inefficiencies apply to the case of unhealthy food choices.

Most personal behaviors affect other people, sometimes negatively. Aside from extreme cases of outright harmful activities where damages cannot be offset by any amount of gain in welfare, interpersonal coordination from the point of view of well being requires that benefits are larger than damages. The obvious limitation of this criterion is that damages and benefits might accrue to different individuals.

To avoid this issue, the adjudication of public interventions in welfare economics adds a neutrality constraint, the Pareto principle, which recommends only those policies that make somebody better-off without damaging anybody. The principle prevents interpersonal trade-offs and is based on the idea that the action of public authorities is at least justifiable, even to its staunchest enemy, if it does not harm anybody while making improvements for at least somebody.

Also, the Paretian principle forbids any kind of redistribution, which must be defended on other grounds and within broader conception of the role of public authorities. Even this very minimal benchmark for justification seems to support intervention against unhealthy lifestyles, e.g. in the form of taxation on unhealthy consumptions in the presence of public health systems.

From the utilitarian standpoint, although the effects of unhealthy eating might be such that taxpayers will have to bear additional costs to provide remedies to diet related diseases, the benefits that people gain through unhealthy diets (e.g. pleasure, social consumptions) might counterbalance this loss of welfare due to augmented costs.

Economics models define the optimal trade-offs as the one where benefits equate losses: any other solution would be less desirable from the standpoint of aggregate welfare. Specifically, the optimal level of consumption of a certain good is defined by the balancing of the strength of the consumer's desire for it and the efforts of society that are needed to produce it. Under standard assumptions of rationality of the actors involved, the balancing is done in practice by markets and the optimal level of welfare should be reached without public intervention. The justification of this claim would require some work, but we may assume it since it is the basic result of microeconomics.

Yet the market price of unhealthy goods in presence of a public health system cannot play its organizing role at its best: the effort of producing unhealthy goods is determined in monetary terms solely by the expenses of private firms producing sugary drinks, butter and chocolate bars. This mechanism does not suffice for optimal balancing: part of the societal efforts consists in the health costs of diet related diseases, and these are not accounted by prices since they do not enter into decisions of firms about production.

Prices and levels of consumption of unhealthy items in presence of public health systems cannot be optimal. Prices do not reflect the encounter of efforts of production and desires for consumption because prices do not account well-enough for health "externalities" that will be paid by society. Crucially, the argument is purely aggregative: there is no issue of fairness related to society paying for personal "vices" due to anomalous personal preferences. Rather, the aggregate welfare is not high as it could be because the pricing mechanism cannot work smoothly: the result is a pure loss in terms of well being. The idea is straightforward: at the optimal level of consumption, the satisfaction of consumers and producers are jointly maximized, while at any other level - included the level reached when health costs are ignored - somebody must be worse-off than it could be.

The argument for taxation of unhealthy behaviors (which is the typical measure defended on these grounds) is thus as follows: taxes are justifiable if they correct the market mechanisms by re-internalizing social costs of unhealthy behaviors. That is, taxes should squeeze into market prices

the health cost of bad diets to move the level of consumption at the optimum. There must be a rate of taxation - the optimal rate - that eliminates aggregate welfare losses without damaging anybody, as required by the Pareto principle. Although consumers will re-arrange their consumption to new levels suffering some frustration, the revenues of the optimal tax must be more than enough to over-compensate the loss: this is the basic result associated with the name of welfare economist Pigou that is sometimes associated with these taxes. The argument depends on very minimal assumptions about the role of public authorities. Taxes on unhealthy consumption are not forms of disincentives against bad habits, but small correctives of market mechanisms.

It has been argued that while several behaviors have health externalities, cherry-picking diets for taxation shows contempt toward habits that are more frequent among the less well-off and seems associated with ancient moralistic attitudes toward vices, i.e. gluttony. While the stigmatizing effects of policy should indeed be considered (see section 2.1.3), the argument is rather weak. In one sense, diet taxes do arbitrary select some behaviors for targeting, but this is hardly unfair: if the Pigovian reasoning is correct, nobody is worse-off as a consequence and this cannot be discriminatory as such. Discrimination is *at least* a morally arbitrary allocation of advantages and burdens: aside from stigmatization, targeting diets instead than other behaviors do not affect allocations in debatable manners.

The trouble of the argument presented above is to be found instead in its empirical details. While the model is based on sound logical reasoning, it remains unclear whether the model applies to any specific case. Let us make this exercise for food.

First of all: how do we measure the social cost of unhealthy eating? The task seems quite straightforward: we figure out the costs of health services that are used to tackle diet related conditions and then we set an appropriate rate of taxation that will render tax revenues equal to health costs.

Aside from the complication with disease causality, this is not sufficient, because some societal costs of lifestyle related diseases are not included in health care costs. For instance, a chronic condition is often disruptive of active contribution to society, and this is also a loss – as it has been discussed above. This objection calls for refinement of the policy, not for its rejection – yet the worse is yet to come.

The crucial objection is different: costs of chronic conditions are associated with public gains if diet related conditions shorten life-expectancy and/or *decrease* lifetime health care and other social expenses, as contributions for pensions. We might discover by empirical analysis that there are *positive* externalities of unhealthy habits: then, Pigovian considerations would recommend their subsidy. Let us see why.

Precocious deaths are a public good in terms of lessened costs and, as public goods, precocious deaths are not provided at the optimal level because prices of unhealthy foods are too high. In fact, prices of unhealthy foods do not account for the relief of social efforts that is due to beneficial early deaths. This is obviously repugnant: we should not subsidize unhealthy habits because they shorten life-expectancy of “costly” people, no matter if there is at least one sense in which early-deaths are indeed a public good.

Repugnancy aside, the argument shows at least that there might be no arguments from negative externalities in favor of sugary drink taxes (and the likes) if costs were thoroughly figured out. The calculations have been done for several countries and the results are somehow ambiguous: while obese people cost more on yearly bases, on average they live less (ca. 8 years on average), and the combined effect is somewhat neutral (Sassi 2010 – discussed in chapter 2). This is why the Pigovian argument is empirical dubious and probably irrelevant: the effects on public budgets of unhealthy lifestyles is, for what we know, small. Hence, there is simply no or little externality to eliminate.

Prices and levels of consumption might be un-optimal from a second standpoint. If health costs are subsidized, people may tend to overeat because they fear less the ensuing consequences: a (minor) form of moral hazard. The idea is that while the background conditions change in terms of health care security, preferences for consumption adapt to the new circumstances. People come to invest less in healthy activities and indulge more in risky behaviors upon introduction of public health insurances because their previous conduct depended, among other things, by the fear of disease cost. This is at least problematic because increasing the incidence of diseases is not the purpose of the health system: that is, resources were not channeled to health care to incentive unhealthy lifestyles.

The problem is not so much that the modified preferences are somehow defective: in this respect the term “moral hazard” is misleading because it seems to entail a moral judgment. Rather, the issue is purely one of sustainability and efficiency: public policy cannot generate the problem that they seek to address. There must be better ways of spending money, so intervention is again granted under simple utilitarian principles. Yet it is unclear if there is ever moral hazard due to the presence of socially funded health systems: let us look at the case of nutrition.

There are three reasons to doubt that bad nutrition is a case of moral hazard. Unhealthy behaviors related to diet are more common among the poor, they appear to be increasingly endemic in emerging countries that lack Europe-style health systems (Popkin 2001), and obesity is equally frequent in two countries with very different health systems (things standing in 2013), the United Kingdom and the United States.

The first observation seems at first sight irrelevant where health-care is publicly subsidized, but in fact health conditions are in any case costly, and indeed they might be financially disastrous, even in countries with robust welfare institutions. Poor should fear more this perspective since they do not have assets of their own to face sudden financial threats, so we would expect that their investment in “good” health behaviors should be higher if the expectation of costs plays any role in the choice. Yet unhealthy behaviors are more common among the poor: this is an anomaly in the theory of moral hazard, since the theory entails at least that choices are determined by expectations regarding costs.

The second case is more straightforward: obesity and overweight are diffuse even in countries where the consequences of health conditions fall entirely on the individuals. The establishment of universal health coverage would be a good natural-experiment to test the hypothesis of moral hazard, if not for the presence of many confounding factors: after all universal coverage for health associates with high GDP pro-capita and hence with all the features of wealth that are associated with increased health problems due to nutrition (e.g. sedentary lifestyle, urbanization, etc.). That is why these empirical observations are obviously inconclusive: the relevant environment of choice, nation-wide arrangements for health provisions, is not amenable to experimental manipulation and anyway a host of confounding factors will taint the results of comparative studies.

More generally, the problem of moral hazard is very unlikely to be ever relevant to health behaviors because the cost of health care is just one of the aspects of the suffering involved with diseases, and perhaps not even the most important. Pain, frustration, sometimes death are consequences of diseases that cannot be – quite obviously – socialized.

So far, I have argued that people are generally responsible for unhealthy lifestyles and that these unhealthy lifestyles may affect other people. I also explained why this is not un-rightful: the socio-economic context of choice makes responsibility-sensitive judgments of responsibility inappropriate. In this section, I explained that there could be other bads associated with the relation between personal choices and health costs, i.e. lesser aggregate well being, and that these are legitimate reasons for intervention. These two theses are the chief result of the chapter. The next section deals with some corollaries pertaining to other forms of the appeal to personal responsibility for health (Voigt 2013): I show that they are either reducible to previous arguments or void.

3.2.5 Appendix: minor arguments for personal responsibility for health

This chapter has been dedicated so far to the societal effects of individual choices and the ethics of holding people responsible for the health consequences that may ensue from them. While I distinguished two main versions of responsibility-based arguments in favor of public health interventions against unhealthy lifestyles (i.e. distributive and economic), I would like to mention two further ideas that are sometimes employed in discussion about responsibility. First, proper respect to persons includes appropriate considerations of personal responsibility (Brown 2013). Second, the participation to institutions that provide services and draw resources to and from everybody must be fair, where fairness is understood in terms of reciprocity and/or solidarity (Buyx 2008). I analyze these two arguments in turn arguing that, if properly understood, they cannot be independent from the main versions above.

Treating persons as responsible. Those who deny autonomy to socially-determined behaviors acknowledge the thorny moral issues involved in these attributions, here is Brown's version of this concern:

I do not seek to argue that all those from deprived backgrounds are incapable of making robust, character-driven decisions about their lifestyles. Nor do I show that all those engaging in unhealthy behavior are not morally responsible for their actions. (Brown 2013, pg. 4)

This thread of reasoning in favor of holding individuals responsible is grounded on the moral claims of the targeted individuals rather than the claims of affected third parties. Sometimes, the responsibility-oriented reforms of traditional tools of health and social policy might be defended on these grounds.

Are they convincing in the case of food choices? That is, does proper respect for agents require that, in case their choices have bad consequences for them, they should be rescued from disastrous consequence but anyway held responsible and participate (e.g. economically) to their remedy?

Starting again from Scanlon's (1998) distinction between "substantive responsibility" and "responsibility as attributability", the misleading nature of the latter question should be clear. On one hand, the answer to that question is positive: people ought to be held responsible (i.e. attributive responsibility) of their unhealthy behaviors and the proper respect for them requires that their capacity for autonomous agency is not questioned. On the other hand, the answer is also negative (i.e. substantive responsibilities") because people do not have particular duties regarding their health - at least if my argument above is correct. Proper respect to persons requires that their character as autonomous agent is not put into question, yet this does not equate the claim that they should bear whatever distributive consequences of their behaviors.

Fair contribution and reciprocity: the communitarian argument. Although there are communitarian arguments in favor of universal welfare regimes (Heath 2011) based on the idea that some goods should be subtracted from the "corruptive" effects of market exchanges (Sandel 2012), the appeal

to fair participation is a common topic for communitarians that characterize welfare systems as “solidaristic” and those who insists on reciprocal duties and rights (Etzioni 1993). Political science has proven that the appeal to solidarity was endemic across diverse political forces while the European welfare services were set up (Sternø 2005). The perception of common risks could indeed guarantee the “sense of community” often invoked by solidaristic rhetoric.

How do we derive a moral argument on personal responsibility for health from these considerations? Reconstructing the communitarian argument, Voigt (2013) mentions the duties of reciprocity that supervenes, in condition of scarcity of resources, on the presence of health systems. To maintain sustainability, everybody must do his *fair* share, both on the contributive side and the side of claiming services. There are indeed two ways of unduly over-using the system (i.e. health services): either claiming services without contributing (e.g. in case of tax evasion) or claiming more services because of personal choices that could be avoided. It should be clear, however, that an appeal to reciprocity is not sufficient, alone, to specify *the content* of contributive duties and provision rights. The idea of reciprocity is void without an underlying distributive ideal, so the communitarian argument reduces to the problem discussed above.

One might reply to the *reductio* at the distributive argument pointing out that public health systems are simply justifiable on efficiency grounds (Heath 2011) and that individual duties and rights depend quite simply on the rules that make the system working. However, the communitarian argument would become undistinguishable from the argument from efficiency in this version.

4. Promoting Equality in Public Health.

The Moral Significance of Social Health Inequalities

Socio-economic egalitarian values permeate public policy: the structure of fiscal contribution, the provision of services for welfare and the regulation of the job market are key leverages that public authorities employ to address societal inequalities in wealth and income. Following the recognition that complex epidemiological patterns are juxtaposed to socio-economic inequalities¹⁰⁵, a strand of egalitarianism has developed from within public health too. Public health officials and decision-makers are embedding the fight against *social* health inequalities in their strategies, programs and interventions under the labels “tackling the determinants” of health inequalities and “closing the gap” between the health of poorer and richer people (Marmot and Wilkinson 2006). Also, they increasingly embed distributive concern in the exercises of economic evaluation of health services, going past a purely “aggregative” approach which ignored the complexities of unequal societies in the utilization and outcomes from services (McIntyre and Mooney 2007).

The fight against social health inequalities is the third broad strand of justifications for public policy against unhealthy nutrition that I explore in this work: we may want to fight unhealthy habits because they are more common among disadvantaged strata of our populations and we despise the consequence thereof. Here I evaluate the arguments that underpin the approach of social epidemiologists and discuss with specific attention to nutrition the moral and political significance of health inequalities due to differences in lifestyles.

The characteristic feature of my proposal is a focus on *egalitarian reasons*. While there could be several non-egalitarian grounds to tackle health inequalities (e.g. ameliorating the health of populations in a cost-effective way), my purpose here is to single out and discuss the main features of *egalitarian* public health.

While in the previous chapters there was a balance between critical and constructive sections, my argument here will be mostly critical. I do not present a full theory of the moral significance of health inequalities but discuss the main limitations of non-egalitarian views or quasi-egalitarian views in the light of social health inequalities. My reluctance in providing positive argument is nonetheless theoretically motivated: I will suggest that a renewed attention to the fight against social inequalities will ultimately depend on empirical work, in economics as well as in other social

¹⁰⁵ See *infra* section 1.2.1.

sciences, aimed at highlighting the goods that more equal societies are able to promote. That is: the more convincing egalitarian arguments will be consequentialist in nature, rather than based on theories of individual rights and entitlements.

The chapter is divided into three distinct parts. The next two sections are introductory. (4.1.1) collects some background information regarding socio-economic inequalities in advanced economies that will be valuable for the discussion and (4.1.2) explores whether “health” as such could be the focus of distributive justice (i.e. prescriptive theories regarding the inter-personal allocation of goods), given the *prima facie* oddness of the idea of “distributing health”.

The second part, that includes sections 4.2.1 and 4.2.2, is dedicated to two views of social justice that purportedly explain why health inequalities ought to engage public actions, namely Powers and Faden’s (2006) sufficientarian welfarist theory and Norman Daniels’ (1985, 2008) employment of Rawls’ theory of justice in the field of health policy. I do not take issue with these views, which *do* single out important moral preoccupations regarding health inequalities. Yet I will sketch some observations as for why these theories are unlikely to exhaust the kind of moral reasons that motivate public action against health inequalities. This is important for my purposes because the first theory is a *non egalitarian* reconstruction of public health while the second theory put forwards egalitarian considerations as for why certain inequalities in health might be *unjust* (i.e. they are associated with *harms*). I will instead claim that social and economic equality and resulting health inequalities are *bad*, i.e. undesirable state of affairs, independently from whether or not harm was made¹⁰⁶, i.e. independently from the frustration of some entitlement.

In the last part (section 4.3), I will work toward the deconstruction of a particular egalitarian view centered on equality of opportunity from the standpoint of the analysis of social inequalities in health behaviors. The view that I analyze has not been explicitly defended by political philosophers and has not been discussed explicitly in the context of social inequalities in health. However, it could be extracted from policy documents and other political resources. I will call it “neo-liberal egalitarianism” since it unfolds some theses, both normative and empirical, that are commonly associated with that political project. I will argue that, in the light of social health inequalities, the

¹⁰⁶ See also the distinction between telic and deontic distributive theories (section 4.5): Daniels’ view is deontic while here I try to defend a telic view of why resource egalitarianism is compelling.

moral merits of the principle of equal of opportunity in the field of public health are doubtful (4.3.1), its economic *rationale* do not stand scrutiny (4.3.2) and its recommendations, if taken seriously, are not different from the old “outdated” egalitarians concerns for economic equality (4.3.3). The aim of this third part is obviously *not* the debunking of such a massive and proteiform edifice as neo-liberal egalitarianism, but I would like to pinpoint some anomalies of that paradigm starting from a very limited fragment of policy and explain why its application to health policy is untenable. As much of this thesis, I hope that this effort can have some *illustrative* meaning.

The conclusion of the chapter is the following. I offer a reasoned support to the egalitarian turn in public health policy and defend the moral importance of the approach of “tackling the social determinants of health”, in particular living conditions, employment and income: these are crucial factors in the emergence of diet related diseases. Yet I argue for a justification of that approach which is more frankly egalitarian. In particular, I argue that *resource* egalitarianism should be again considered a viable political ideal, for broadly consequentialist reasons.

These consequentialist reasons will be essential to turn the table on anti-egalitarianism. The pursuit of equality in resources has been called into question from several standpoints, ranging from the conservative to the progressive. Equality in economic resources is at most an instrumental aim rather than an intrinsic good, the pursuit of equality leads to unsustainable inefficiencies and less wealth for all, equality threatens personal achievements that are praise-worthy, equality of resources between individuals with different needs is unjust. Both equality as a distributive pattern and resources as focus of egalitarian justice have been questioned in political theory and the rejection of that ideal has been a long-standing common place in the last decades in the public sphere.

These theoretical preoccupations - even if they were sound - must at any rate be weighed against the *goods* attached to economic equality, which are substantial even in a very small fragment of policy like health behaviors inequalities. There are indeed broader theoretical and sociological developments that might push in that direction: to this topic is dedicated the next section.

4.1 The circumstances of socio-economic inequalities

This introductory section addresses two distinct issues. First, it reviews some theoretical and sociological developments that may lead to the renewal of the tradition of socio-economic egalitarianism. The exercise is meant to provide some information regarding the context in which health inequalities *happen* but it is quite crucial to defend the general approach defended in this work as well, since I will basically argue that other egalitarian views are correct but, as it were, *untimely*. The second section is instead dedicated to health as a focus of distributive justice: it may indeed seem puzzling to consider personal health something of which we may speak of just (or unjust) distribution. I would like to dissolve that important preliminary worry.

4.1.1 From the rise of socio-economic inequalities to the new egalitarianism.

In 2011, the Organization for Economic Cooperation and Development (OECD) has issued a report on the causes of economic inequalities, “Divided we stand”, implicitly acknowledging that socio-economic inequalities within OECD countries have become a major political concern in high-income countries. Following the 2008 economic crisis in the United States and its long-standing reverberation in the Euro currency zone, the topic of economic inequalities (e.g. income, wealth) has achieved a renewed relevance in public debates, both because inequalities are perceived as intrinsically intolerable in the face of the severe social consequences of the crisis and because inequalities and their magnitude might not be extraneous to the very outset of the economic failure. Before mentioning the latter issue – which is crucial for the approach that I recommend, let us look at the most striking recent trends in economic inequalities and their principal drivers.

While human societies are universally characterized by sharp differentials in the personal mastering over resources and power - this is at least true for those that moved beyond an organization based on hunting and gathering (Bohem 2001) - the extent of inequalities and the nature of their underlying mechanisms change with time and place. Within most Western societies (i.e. Europe,

US, Canada, Japan, Australia and New Zealand), economic inequalities reached their minimum at the end of the thirty years that followed the second world-war. Then, the wealth generated by rapid economic growth was substantially appropriated by wages – and increasingly so throughout that period indeed. The bargaining power of employees was relatively strong, a set of services was universally provided outside the market by the state (e.g. welfare state, public schooling) and taxation was sharply progressive (Streeck 2013). In Italy, the peak of that trend was reached in the middle '70s, while welfare provisions have been traditionally weak in the country and show signs of regression in the last years.

While post-fiscal income inequalities are significantly compressed in several European states by the public provision of services and progressive taxation, the fall of wages in comparison to other sources of income is generalized (OECD 2011). For example, German real wages (i.e. salaries corrected for inflation rates) have *stagnated* between 1990 and 2009 (OECD 2012), even though economic growth occurred in the meanwhile: economic inequalities must have increased there (if we assume an unequal distribution of capital-associated incomes). In most European countries the following is the case: pre-fiscal income inequalities are widening and the equalizing power of the state (i.e. fiscal structure + delivery of services and public spending) is fading (OECD 2011)

Which are the underlying drivers of these phenomena? While the debate on the ultimate drivers is open, the OECD (2011) reported some purported explanations of these trends. The relative weakness of the bargaining power of workers *vis-à-vis* employers is certainly a proximal explanation as it is the fading progressive nature of the progressive nature of fiscal systems. Indexes of job market protection have been systematically decreasing in the last decades in western countries and their decrease is significantly associated with lower wages (Brancaccio 2011).

Where does this weaknesses and the associated reforms in the labor market stem from? The OECD report (2011) mentions technological change and international liberalization of markets (i.e. globalization) as the main drivers of the trend. On the one hand, technological innovation has created a surplus of low-paid workers and a high demand of a highly-skilled work-force: while several manual tasks have been replaced by technological devices, there is increasing request of engineering and management skills. On the other hand, market liberalization has had a differential

effect on the two *strata* of workers: while the latter are mobile and can bargain their wages since they are scarce world-wide, the former are mostly bound to their countries and abundant, thus employers can threaten de-localization where labor is cheaper. The result is an increasing gap in the income level between different *strata* of the work-force and *relative* losses of the latter in comparison with other source of income (i.e. yields of capitals).

The latter phenomena is a very important complementary factor driving inequalities: gains from financial activities rose percentagewise more than GDP in the last thirty years so there must have been a distributive conflict between salaries and financial gains, which was won by the latter. The process may have taken different forms: the appropriation of a larger share of total economic output, the seizure of assets that were previously public, a favorable fiscal regime or even outright tax evasion (Gallino 2011).

The relation of these dynamics with global distribution of wealth is unclear: while some countries are experiencing growth and sections of their population were lifted up from *extreme* deprivation, e.g. China - the absolute numbers of the poor worldwide is historically very high. Also, the most successful countries in terms of GDP-growth (i.e. the so-called “BRICS”) are following very different pathways in this respect, with South-Africa being the less equal country in the world (as measured by Gini coefficient for income) and Brazil being one of the few countries where the Gini coefficient for income inequalities has actually decreased in the last decade (while remaining one of the highest in absolute terms).

Aside from humanitarian concerns regarding a world where desperate deprivation is endemic despite the enormous production of wealth (which is *the* moral problem of inequalities according to some authors, i.e. Singer 2010), income inequalities have captured the attention of policy-makers because of their role in the on-going economic crises. In other words, inequalities might be at the centre of political debates not so much because of distributive or humanitarian concerns, but rather because they might be a liability in the very process of accumulation, i.e. economic growth. The question is no longer – as in the orthodox wisdom (LeGrand 1992) - whether there could be growth without economic inequalities but rather whether growth is actually possible (or whether it could be more sustained) *given* the current level of economic inequality. The issue is obviously debated and

involves intermingled normative and empirical issues, yet is worthy in this context to sketch some views as for why there could be a *causal* correlation between inequalities and slow growth and economic failure. This is indeed the kind of consequentialist reasoning that may speak in favor of resource egalitarianism, as I suggested above. I propose two examples, one for the US and one for the Euro-zone.

Recent analyses by Stiglitz (2012) have suggested that the credit and house-bubble that led to 2008 *debacle* in the US stock-exchange and the ensuing economic worldwide crisis cannot be considered extraneous to the level of inequalities in the US society, where the aggregate demand necessary to sustain economic activity was kept afloat by reckless lending and dubious financial practices (i.e. sub-prime mortgages) to poorer strata of the population. The key point of this perspective is that the crisis was not due to the criminal behavior of the few or to frauds on the part of the borrowers, but was instead an intrinsic feature of (private) debt-dependent growth: private debts substituted public investments as engine for economic accumulation (see also Gallino 2011 and Streeck 2013, from a different perspective and tradition, for the same point). Weakness of wages and the *Ersatz*-demand in the form of debt which was necessary to create appropriate (global) demand are, according to Stiglitz, one main element of the recipe for crises. Again, here we do not need to accept this or other explanations, only remind the underlying reasons that might bring to a resurgence of egalitarianism.

In the Euro-zone, the mechanisms of the crisis have been quite different from the US and indeed diverse within it as well. The mainstream wisdom among policy-makers attributes to excessive (public) borrowing and lack of competitiveness-enhancing reforms on the part of weakest countries the outset of the (sovereign-debts) crisis: as a consequence, massive de-leveraging and structural reforms are the most common measures that have been taken there. However, observers of different political and theoretical leanings have observed that the pathological trade imbalances within the Euro-zone – stifled by the common currency – might be underpinning the crisis in some (deficit) countries (Bagnai 2012). For our purposes, it is important to notice that among the latter, there are those who claim that the dynamic of increasing inequalities (due to stagnating wages) in the core (surplus) countries (e.g. Germany, see above) is a key factor in the outset of imbalances: core

countries manage to keep prices and imports at low levels (and boost their exports) because of this explicit policy of “salariat moderation”, which outcompetes weaker countries, as in a model beggar-thy-neighbor mercantilist policy (Lieb 2013). In this context, the re-activation of core-countries internal demand with inflation and higher wages would be the natural (egalitarian) response to imbalances, together with egalitarian policy that might re-activate internal demand for internal products in deficit countries. Again, this issue is overly complex but it is important here to track the sociological sources of a new interest in economic egalitarianism.

From a long-term perspective, these events in US and Europe might have challenged the received view about the relation between growth and economic equality, according to which equalizing policies are expected to decrease the aggregate social output as a result of their disincentivizing effects. A renewed attention to demand-side policies is however just one of the threads of the new consequentialist egalitarianism that is re-surfacing in the last years, though if successful between decision-makers it might become *by far* the most important.

A paradigmatic popular piece of work in the same consequentialist direction but from a different perspective is that of Pickett and Wilkinson (2009). The two authors - Wilkinson being the leading social epidemiologist that edited the collection on the social determinants of health along with Michael Marmot - collected a wide series of data associating levels of income inequalities (as measured by national Gini coefficients) with costly social bads, notably for our purposes obesity and nutrition-related diseases.

In their popular book, they argue that unequal societies “almost always do worse”. Although their methodological approach is open to a number of criticisms (O’Neill 2010) - and their book is obviously a piece of activism more than science - Pickett and Wilkinson are representative of a new way of arguing in favor of socio-economic equality: they single out uncontroversial goods that are attached to equal societies. The approach is broadly utilitarian and so it might seem quite extraneous to traditional egalitarianisms, yet some of the goods that are highlighted by the two

authors might be considered *egalitarian* goods, especially those that regards social relations and communitarian values¹⁰⁷.

I will mention in the following (section 4.3.2) some goods that are related to public health and nutrition-related diseases whose achievement depends on the pursuit of resource equality. However, I will mainly suggest an approach to the normative discussion on health inequalities that is somehow inspired to Wilkinson and Pickett: rather than deciding which health inequalities or underlying distribution of resources are unjust according to some standard of justice based on individual entitlements (Whitehead 1992), we should look at which recommendable goods more equal societies will foster and weigh them against possible costs, those highlighted by traditional economic theory (they are *bona fide* empirical hypotheses to be tested).

4.1.2 The distribution of health

The notion of “distributive justice” is in part misleading since it brings into mind the idea of goods that are literally re-distributable, i.e. material assets that can be taken from one individual and passed on to another. Health is obviously nothing of this kind: if somebody has poor health, there is nothing that can be done by taking *health* from those who are healthy.

Yet the notion of distribution has an even bigger flaw: it may suggest the picture of a field of policy, “distribution”, that is relatively independent from the rest of public actions. Also, it might outline a picture in which “the economy” produces certain outputs that can be taken and distributed according to specific patterns by public authorities. Fiscal policy is the paradigmatic example of distributive policy that might come to mind, yet fiscal policy is not necessarily neither the most important nor the most effective device that public authorities might employ to pursue specific distributive aims. Needless to say, there are several problems with the picture of a sharp distinction between production and distribution. I mention three of them in the following: at the end it should be clear that there is no problem in discussing *health* as a focus of distributive justice. A sharp

¹⁰⁷ O’Neill 2008 for a discussion of non-intrinsic egalitarian goods of egalitarian distributions.

distinction between production and distribution – from which the suspicion toward the idea of distributing health stems – is perhaps appropriate for the middle age, where the lords would seize part of the harvest collected by servants, yet it is quite inadequate for contemporary societies.

Continuity between distribution and production. The notion of “distribution” gives the idea of a dispersal of *pre-existing* things to be distributed. Yet nothing of this kind exists: as it should be clear from the discussion in previous section, accumulation depends on the distributive patterns that are in place (i.e. who owes what) and in turn it leads to specific distribution of resources and goods. The idea that distribution and production can be separated might be suggested - though is not entailed - by economic-liberal arguments about the virtues of unconstrained economic activity: production is left to market forces and public power comes *downstream* to flatten the unwanted distributive consequences of their unconstrained functioning. However, the sphere of politics and the sphere of markets are not so easily separable: historically, free markets were highly artificial creations of the political power (Polany 2001 [1944]) and it is *impossible* to imagine production without authoritative decisions regarding distributions, i.e. enforcement of property rights¹⁰⁸. While this observation might seem uncontroversial, some in the economic profession felt it had to re-state it, so indeed the mainstream picture might have overlooked the issue:

We [now] understand that even unfettered competitive markets are based on a set of laws and institutions that secure property rights, ensure enforcement of contracts, and regulate behavior and product and service quality, we increasingly abstracted from the role of institutions and regulations supporting market transactions in our conceptualization of markets. (Acemoglu 2009, pg.4)

No difference between distribution and re-distribution. An associated contraposition is that between distribution and re-distribution, sometimes associated with pre-fiscal and post-fiscal incomes, which is taken to have some moral weight by some theorists (i.e. *prima-facie* entitlements to pre-fiscal incomes). Murphy and Nagel (2002) pointed out that the distinction cannot have that

¹⁰⁸ *Infra* section 1.2.2

moral value, since the former depends on the latter. Distributive pre-fiscal patterns would have an entirely different shape with different fiscal provisions regarding re-distribution.

Although I agree with their observation, they could have been even more radical: they are still taking as paradigmatic case the fiscal system and are (correctly) pointing out that there is no distribution without re-distribution. For the sake of their argument, they mention throughout their book those public goods funded through taxation (e.g. roads) that make possible economic activity. This is strategically understandable since those are example that mainstream economic is likely to accept, yet the conceptual and moral mistake that they are trying to identify and debunk is more easily highlighted shifting the focus from fiscal systems to – for instance - labor policy: the fundamental features of distribution and production depend on the latter, but it is clear that nothing like the distinction between distribution and re-distribution or that between production and distribution might come into mind reflecting on labor policy. While the distinction between pre-fiscal and post-fiscal incomes is certainly useful to measures the distributive effects of *different* regulations and institutions (e.g. labor policy vs. fiscal system), it does not overlap with the morally-laden difference between distribution due to unconstrained economic activities and re-distribution enforced by the state.

The distribution of distributable and non-distributable goods. Goods as increases in life expectancy, decreases in incidence of disease, health care, etc. are just some of the many goods that social cooperation brings about. These goods are among the most valuable *products* of functioning societies. They are very different from liquid material assets because they are attached to persons, but they are not fundamentally different. There is indeed a *continuum* between “liquid” wealth and personal goods, and the degree of transferability is determined both by the nature of the good and the social context. Let us consider the case of houses: although they might change property, they are arguably more at the centre of this continuum, at least because people might feel attached to their “home”. In certain cultures, homes are definitely closer to personal health than to cash as for their inter-personal transferability.

The idea that there we can easily single out “distributive” policies and laws is extraneous to decision-makers: any policy deals with the distribution of goods and its effects will influence people’s lives differentially depending on several variables, most notably socio-economic status. Although others variable could track important distributive effects of health policy (e.g. age, gender), the focus here will be on socio-economic disparities, given their relevance for the case of nutrition and their *prima facie* moral priority, which is due to the compounded effects of different types of disadvantages that typically fall upon the socio-economic disadvantaged.

4.2 The moral significance of health inequalities: previous proposals

This section is dedicated to previous prescriptive theories regarding health inequalities. The disparities in mortality and morbidity that are dependent on social factors may offend our moral sensitivity. Why is this case? Which is the moral theory which can reconstruct these intuitions? Are they reliable or do they depend to untenable assumptions?¹⁰⁹

Whitehead (1992) firstly proposed a criterion to single out health *inequities* among the broader category of health inequalities (a purely descriptive notion). Under her conception, any *avoidable* social health inequality which is regarded as unjust counts as inequity, since it amounts to avoidable harm. The idea is however flawed. To begin with, the condition of “being regarded as unjust” seems redundant or circular. Also, the restriction to *social* health inequalities does not fit the interest in natural inequalities which is typical of some varieties of contemporary egalitarianism, notably luck egalitarianism (see section 3.2.3). The major problem is however that the condition of avoidability is simply too vague. If avoidability is interpreted in a strict sense, i.e. mere possibility of averting a certain inequality independently from the consequences, the conception is obviously false: remedying to all remediable health inequalities could be so costly as to cause overall worse harms to the population. If instead avoidability is taken to be avoidability provided that consequences are acceptable, one must obviously refer to external standards for the judgment, and so the criterion is void.

¹⁰⁹ For a reconstruction of this debate, see Wilson (2008).

Public health ethicists have focused for long on the issue, providing reasoned answers to the questions: “Which health inequalities are unjust?” and “Why?” For the moment, I focus on some important answers to those questions, claiming that they suffer from crucial limitations. This will leave a space for a simpler and pragmatic approach: health inequalities are important for egalitarianism and justice in two ways. First, they signal some key benefits that resource egalitarian policies might bring about, namely an increased level of health. Second, their removal can in turn be instrumental for the pursuit of resource egalitarian aims that are recommendable for independent reasons.

4.2.1 Humanitarian values and the sufficientarian critics of egalitarianism

Powers and Faden (2009) have argued that health social inequalities are morally worrisome because they constitute important causal hubs in a network of “densely interwoven disadvantages” that trap persons at intolerably *low levels* of welfare. They explain the latter notion describing five “uncontroversial” dimension of personal well being – health, personal security, reasoning, respect, attachment and self-determination – and the associated thresholds of minimally acceptable (i.e. sufficient) welfare. Their aim is to reconstruct the goals of public health around an objective that is ultimately *sufficientarian*: there is no egalitarian value in their discussion of the purposes of public health but only humanitarian concerns for desperate deprivation.

The approach fits a long tradition of critiques of egalitarian values centered on their reducibility to non-egalitarian concerns, e.g. sufficiency of welfare or priority of the needs of the worse-off (Frankfurt 1988, Parfit 1997). The complaint against egalitarianism is at any rate always similar: nothing specifically egalitarian is left once sufficientarian or other non-egalitarian duties are fulfilled. Any further insistence on equality amounts to fetishism or it is outright wrong, as the leveling down objection should show: if egalitarians are serious, they should prefer - at least *pro tanto* - a state where two people are equally worse-off than a state where two people are both better-off than the latter but unequally so.

Rather than a technical treatment of the subject questioning the universality of Powers and Faden's six dimensions of welfare or the moral significance of their thresholds¹¹⁰, I suggest that it is better to pay some attention to why *robust* egalitarianism is again on the stage in Western countries *despite* theoretical observations regarding the leveling down objection or the reducibility of egalitarianism to some humanitarian concern. In the last decades, since *absolute* poverty did not generally increase in the EU (though this is not the case for some countries in Southern Europe in the latter years), it seemed just natural to attribute several emerging social bads to social inequalities *as such*: this is after all Pickett and Wilkinson's (2009) approach that we discussed above. While incomes have been stagnating and life expectancy has risen *for all*, comparative economic inequalities widened. In this social context, sufficientarianism perhaps gets it right in moral theory, but certainly cannot be a compelling and fruitful platform for reasoning about contemporary policy issues. The theoretical strength of Powers and Faden's account is indeed its main liability: although they highlight timeless humanitarian concerns, their work is somewhat *untimely*, since strict egalitarianism has again a bite in wealthy but unequal societies that are experienced as dysfunctional. On the other hand, their framework can perhaps be put at work in contexts where extreme poverty and harmful limitations to personal well being are still prevalent.

Aside from the particular pattern of distribution that they are employing, Powers and Faden's attempt to describe in details which are the dimensions and goods that matter for justice is in line with the influential tendency of social philosophy inaugurated by Sen and Nussbaum's capabilities approach (see Nussbaum 2011). Although the latter's contribution stemmed from the aforementioned "equality of what" debate on the currency of egalitarian justice, their proposal has developed into a framework for various normative exercises, which contains *detailed* insights on what matters for people (i.e. a theory of value in the sense of the introduction). Recent developments in that tradition include the original methodology employed in Wolff and De-Shalit (2007) to prioritize among different kind of goods. When isolated from its problematic and

¹¹⁰ The notion of a threshold looks particularly worrisome at theoretical level: it does not distinguish between being desperately under the threshold or just below it (indeed it gives priority to the needs of the latter, since they might easily be brought over the threshold). Also, it seems in any case morally arbitrary: if the good for which we fix a threshold is indeed good to have, how it comes that there is an abrupt discontinuity between a certain amount of the goo for which we do have an entitlement and a higher amount for which we do not?

untimely sufficientarian scaffold, Powers and Faden's core normative proposal retains its contact with this fruitful tradition.

4.2.2 Norman Daniels and the right to health

The attention of analytic political philosophers to distributive issues dates back to the work of John Rawls, which we encounter several times in the previous pages. Rawls' "A theory of justice" (1971) describes the fundamental outline of a just liberal society centered on fairness, where institutions and the use of power can be justified equally to all cooperators independently from their actual worldviews, specific values and interests. The core content of the theory, which is deduced from an imagined contractarian position, consists in three principles:

- (1) Equal liberty
- (2) Fair Equality of opportunity
- (3) Difference principle

The three principles are not equally important in Rawls' theory and they should be implemented in lexicographic order: in no case a lower ranking principle (e.g. 3) can be realized by violating a principle of higher order (e.g. 2). The liberal character of the theory is due to the priority of the principle that ensures to each the fundamental civil and political liberties, i.e. liberty of religion, consciousness, political equality, etc. The principle of fair equality of opportunity must be interpreted as the notion that social positions should be allocated independently from social-backgrounds of births and people should be given appropriate means to develop their talents irrespective of social class. The difference principle states that the only justification for inequalities is the amelioration of the condition of the worse-off: removing inequalities is always recommendable unless the removal will damage the worse-off.

The kind of inequalities that Rawls studies regard "primary goods": resources that are needed to persons for their pursuits independently from the details of their plans of life, e.g. income, wealth, power, and the social bases of self-respect. For the sake of simplicity, Rawls did not discuss

explicitly the case of inequalities in natural skills and health and left unfulfilled the task of extending his approach to these cases.

Among his theoretical successors, Norman Daniels proposed a theory of justice pertaining health care (1985) and health (2008) that explicitly follows the original Rawlsian inspiration. Daniels did not rely on the principle regarding the distribution of primary goods (i.e. the difference principle) but rather extended the principle of fair equality of opportunity to cover the pre-requisites for being functioning cooperators in society, thus modifying its original meaning in Rawls' theory.

In particular, he argues that full economic and social participation requires a set of skills that are *normal* for *Homo sapiens*. Daniels' equality of opportunity gives normative value to the norm of our species, i.e. those minimal features of human beings that allow societal cooperation and the pursuit of ordinary life plans. In Daniels, the notion of "normal species function" (Boorse 1977) takes up important moral weight and grounds a societal duty to bring people to that norm, e.g. by providing health care in case they fall ill.

Daniel's principle is summarized by Buchanan as follows (1984, pg. 62): "Social resources are to be allocated so as to insure that everyone can attain the normal opportunity range for his or her society". As observed in the same comment, Daniels' theory is most suitable for extension from health care to the tackling of social determinants:

It gives us a way of ranking various health-care services as to their relative importance for normal species functioning and provides a principled way of defining the class of health-care needs which does not limit them to medical needs as defined by the current health-care delivery system (Buchanan 1984, pg. 63).

Which is the moral status of social health inequalities in Daniels' view? In his theory, there is no moral difference between social and "natural" disease (e.g. disease whose incidence is uncorrelated with socio-economic indexes): both ground a (conditional) societal duty to provide care and/or to implement policy that would prevent the outset of the damaging condition.

While critics have particularly targeted the mysterious and disputable character of the notion of “normal species functioning” and “range of opportunity that is normal for our species”, we might begin with the observation that Daniels’ theory is hardly a reconstruction of health care *as it is*. After all, health care is normally provided on beneficent grounds, to avoid the kind of human suffering which disease brings about: that people are *sick* is the bad that health-care is meant to remedy and a theory that commends maximal relief of pain due to diseases (compatibly with other aims) is an equally plausible reconstruction of that enterprise. Insofar theories in line with Rawlsian methodology *reconstruct* the outline of liberal-democratic societies, this descriptive limit has indeed some relevance.

Notice however that both in Daniels’ theory and in the beneficence framework, there must be a *proviso* requiring compatibility of health-care spending with other social aims, duties and social pursuits. Given the technological advances in life sciences, there are always new medical needs that can be met – even if we accept that the threshold of “normality” is the normative benchmark - so both beneficence and equality of opportunity will recommend their satisfaction. This is because species normality is perhaps characteristic of human beings, but cannot be independent from the context – including medical technologies.

There is a sort of theoretical *impasse* for any prescriptive theory of health here: without the *proviso* commending compatibility with other social aims, the pursuit of health becomes a bottomless pit, with the *proviso*, all hard-problems regarding the allocation of scarce resources (both between sectors and within the health sectors) remain underdetermined.

While the resolution of this under-determination has been most often addressed with the introduction of procedural constraints on the political process that leads to allocative decisions (especially in Daniels 2008 and Fleck 2011)¹¹¹, I would like to point out one important theoretical consequence of these deliberative approaches. Daniels’ original enterprise was to flesh out societal *duties* regarding the provision of health-care and was later extended to health in general, thus covering also the “tackling the determinants” approach that is the object of this chapter (Daniels et al. 2000). Given the hard prescriptive problems regarding distribution of scarce resources, he left

¹¹¹ Within the health system, utilitarianism-inspired economic evaluations are often employed for priority setting. This however does not explain how much efforts we should reserve to *health*.

the decisions regarding these duties to the political process. The source of obligation in the new framework is no longer some kind of personal right (e.g. to be a functioning cooperator, to health, etc.) but *the decisional procedure itself*. This is an outright abandonment of the right-based approach to health-care allocation which was sought in the old framework. It should be clear how this development is compatible with the broadly utilitarian approach that is upheld in this work: the question is no longer whether or not health inequalities threaten personal rights, but rather whether the fight against social health inequalities can do any good and is valuable for society.

4.3 Neoliberal egalitarianism, equality of opportunity and health

Esping-Andersen, G. (2002), in the introduction to a volume dedicated to new “activating” approaches to welfare planning, argues that a renewed focus on personal responsibility is ultimately “nourished by sociological developments” (pg. xiii). In particular, the old unconditional welfare provisions were suitable to a society where persons were insured against unpredictable or universal risks: it was based on “supposedly objective statistics and probability theory” (*ibidem*). In brief, anybody could expect to have equal chances to get sick. Also, most people get old and so they share that exposition to risk as well. The nature of the new risks that are nowadays prevalent – he mentions single parenthood and shortage of skills, but evidently lifestyle diseases belong to the category as well – is such that the link with personal behavior is more obvious. Personal choices rather than “objective risks” ground the new welfare risks according to Esping-Andersen. Furthermore, he claims that these sociological developments call for a reform of traditional welfare services and even to new attention to responsibility-based distributive theories (see also section 3.2).

Specific concerns about traditional welfare regimes and their sustainability (see section 4.3) plus the theoretical challenges against resource egalitarianism (see section 4.1) coalesced and gave rise to an entirely new form of egalitarianism centered on equality of opportunity. The shared consensus of policy-documents, governmental drafts and scholarly contributions is often centered on this new ideal and has replaced previous prescriptive goals (Ferrera 2013). This form of equality of opportunity has even replaced in the public rhetoric some traditional arguments in favor of social policy.

Joseph Heath (2011) has described three kinds of justifications of welfare regimes (broadly conceived): egalitarianism, communitarianism and public economics. Under the egalitarian justification, the welfare state has mostly distributive functions: the provision of services out of the market through funding by progressive taxation flattens the distribution of resources. Under the communitarian justification, the welfare state strengthens societal bonds providing common

services: this explains welfare services that are not straightforwardly redistributive, e.g. public higher education. Under the public economic justification, welfare states remedies to a broad range of market failures, from the provision of public goods to the management of natural monopolies. The new welfare centered on equality of opportunity appropriated all three forms of justification, giving them a new meaning: just distribution is depicted as the provision of equal opportunity, communitarian aims should be pursued with a renewed attention to personal duties and responsibility that were threatened by the “right” approach which had been prevalent once (Etzioni 1993) and equality of opportunity remedies to the inefficiencies of the old paradigm.

In the Italian public debate, the approach to social policy centered on equality of opportunity has been proposed as foundational for the “new left”. Scholarly contributions, interventions on newspapers and books are marshalling that approach, notably Rustichini and Reichlin’s “Equità e libertà. Ripensare la sinistra” (2012) and Alesina and Giavazzi’s (2007) “Il liberismo è di sinistra”. Especially the latter book explicitly identifies the kinship between equality of opportunity and neoliberal politics (the Italian word “liberismo” is most correctly translated as “neoliberalism”), and indeed the latter authors are influential economists that have provided theoretical underpinnings to neoliberal structural reforms in the country.

The purpose of this section is simple: I will point to some philosophical anomalies of the concept of “equality of opportunity” drawing from the literature on social disparities in health behavior. The purpose is indeed to argue that the principle of “equality of opportunity” is hardly that uncontroversial and overarching political principle that is often depicted. In brief, the next sections will illustrate the case against equality of opportunity and the sort of “open society” that it formalizes. In the spirit of the current approach, I will not attack the idea that individuals are entitled to an open future but rather the kind of alleged superiority in terms of efficiency and cost that equality of opportunity boasts.

4.3.1 What is equality of opportunity?

The fundamental ideal of equality of opportunity is that of a society without castes: personal achievements of people should not depend on their background, i.e. the socio-economic status of their parents. Theorists disagree as for what kind of things might legitimately determine differential achievements, but most theories targets most typically advantages and disadvantages that are *socially inherited*¹¹² and it is to those theories that I focus.

A rough metrics of equality of opportunity is inter-generational mobility, typically defined as the predictability of adult personal income from data regarding parental incomes: low predictability (i.e. high mobility) is normally a sign that equality of opportunity is being realized. The two notions – intergenerational mobility and equality of opportunity – are however not equivalent in any appropriate reading of “opportunity”, for a series of reasons. First, income is just a rough measure of opportunities, since other social rewards are independent from incomes (e.g. social acknowledgments) and some personal plans of life might disregard social rewards and monetary rewards. Also, if skills were biologically heritable, there could theoretically be equality of opportunity with no social mobility. Assume that some biological heritable skills are associated with an income premium and that the latter do not fall into the scope of the principle because they cannot be remedied (or for any other reason): then there would be lesser social mobility than possible without the principle of equality of opportunity being violated.

The principle of equality of opportunity requires *at least* formal equality of opportunity: there cannot be discriminatory regulations regarding the access to rewarding positions, nor discriminating social rules that prevent in any other way the social functioning of people. However, most admit that there must be provisions to off-set the effects of social backgrounds on the development of personal capabilities, especially education and public schooling.

¹¹² We tackle the issue of the normative relevance of the distinction between social and biological heritability in Loi, Del Savio, and Stupka (2013).

Why is the ideal of equality of opportunity not subject to the objections against resource egalitarianism that pertain the instrumental nature of resources, the responsibility-insensitive character of egalitarianism and the economic inefficiencies associated with equalizing outcomes?

First, opportunities seem to be intrinsically worthy, independently from what is actually done with them. *Experiencing* limitations due to social background is bad in itself, even if the use of opportunities would be sub-optimal. The idea of capabilities as focus of distributive justice unfolds a similar observation: opportunities are simply part of personal well being, while resources are useful only as means to personal ends. Those who argue for equality of opportunity cannot be accused of “fetishism” (Keller 2009), i.e. of attributing value to things that are only indirectly valuable and sometimes not valuable at all. In this sense, equality of opportunity employs as a focus of distributive justice a currency which is valuable as such, substantial liberty.

Second, the ideal is compatible with any responsibility-sensitive theory, and indeed seems to be required for any version of responsibility-sensitive theory to take off the ground. Socially inherited features are things for which people are not responsible, and therefore addressing unequal opportunity *levels the playing* field upon which responsibility-sensitive processes will happen. Any differences in social outcomes - were equality of opportunity realized - would be due to efforts and talent, which is indeed what responsibility-sensitive theories are requiring.

Third, while there could be some negative effects on the total production of wealth dependent on equality of opportunity policy (e.g. productive disincentive due to the impossibility of bequeathing wealth to biological children), the effect of pursuing equality of opportunity policy is thought to be positive as far as accumulation of wealth is concerned. There is more than one argument to make in this respect.

In the case of *formal* equality of opportunity, the argument from efficiency depends on the inefficient allocation of labor that discrimination brings about. Let us define the optimal allocation of jobs one in which individuals are most productive: skills of people will differ and there must be a particular employment of their talents that maximize social productivity. Now, any discrimination introduces irrelevant constraints on the process of allocation: for instance, a talented immigrant will

be wasted for productive purposes if laws prohibiting certain employments to immigrants were enacted. Without legal discrimination, this is predicted not to happen and indeed markets should lead naturally to lesser discrimination: any firm refusing to employ individuals for discriminatory skill-irrelevant reasons are using productive factors (in this case, they are spending money in human resources) less than optimally and will be replaced by better firms that do not discriminate – at least theoretically. Naturally, models based on assumptions of rationality might fail quite impressively in social contexts characterized by complicated social norms (e.g. racism), however there are at least ideal-condition reasons to believe that equality of opportunity might promote efficiency.

As for robust equality of opportunity, although the expenses that are necessary for cultivating talents can be large, they can be thought as investments that might have positive yields in the long term. Any potential talent which is not developed is a *waste*, a societal loss. The economic theory that underlies these arguments normally uses econometrics data regarding the relevance of *human capital* for economic accumulation, thus the jargon of social policy as “investment” which is typical of equal opportunity theorists (Esping-Andersen 2002). Without equality of opportunity, it is expected that human capital will not be as high as it could be, especially because some talented but poor people will not emerge. The argument cannot be as polished as the previous one because obviously there are expenses associated with robust equality of opportunity (whereas non discrimination policy is less burdensome if purely formal), yet it can be substantiated, for instance, with empirical literature regarding investments in education and economic performances.

Notice that in both cases equality of opportunity is expected to have positive effects on economic activities *via* the amelioration of productive factors. This kind of consequentialism is utterly different from that of theorists claiming that equal distributions of resources will ameliorate and stabilize the economy from the side of consumption (Stiglitz 2012). Here the normative adjudication will depend on the resolution of complex scientific issues, which cannot be ignored in moral reasoning but seldom emerge explicitly¹¹³.

¹¹³ But see Hausman (n.d.) contra Bowles and Gintis, who also worked on equality of opportunity in Bowles and Gintis (2002).

4.3.2 The health benefits of economic egalitarianism

While the pursuit of resource equality may have unwanted consequences in terms of incentives, the calculus of costs and benefits must certainly include also the latter. This very minimal proposition motivates the book by Wilkinson and Pickett (2009) “The spirit level”, which we encountered already and has drawn a renewed attention to issues pertaining economic equality and its moral significance. The book contains several graphs associating income-inequalities (as measured by Gini coefficients) with a variety of social ills: at the end the book builds a strong case for the idea that “more equal societies do always better”. The burgeoning inequalities of the last three decades have created the ideal environment to measure the effects of them in contemporary societies.

The worse performances in terms of diet related diseases of more unequal countries have been the object of a study by Offer et al. (2010), who started from the observation that English-speaking rich countries stand apart as for rates of obesity as they stand apart in case of income inequalities. Their work is indeed quite interesting because they offer a plausible mechanistic explanation of the association between inequality and obesity that is centered on the social model of those societies. They indeed observe that market-friendly liberal welfare regimes (Esping-Andersen 1990) are characteristic of those English speaking societies and speculate that:

economic uncertainty and unequal market and household experiences have increased stress, and that stress is conducive to weight gain; that market-liberal reforms have stimulated competition in both labor and consumption markets, and that this has undermined personal stability and security. It has affected people more strongly lower down the social scale. Hence the more intensive the competitive and market orientation of welfare regimes, the higher the level of body weight, at both aggregate and personal levels. (Offer et al. 2010, pg. 298).

In particular, they focus on some welfare-regime variables as predictor of obesity rates, finding that levels of job-market protection and economic security – typically low in market liberal societies, are inversely correlated with obesity rates.

Their result replicates with aggregate measures at the macro level what Anandi et al. (2013) suggested with behavioral microeconomics studies that highlighted the effects of poverty on decision making capabilities, though Offer et al. (2010) do not mention among the potential explanations of their findings that particular pathway. For our purpose, it is however noteworthy the conclusion of their discussion, where they suggest “that the economic benefits of open and flexible markets, such as they are, maybe offset to cost to personal and public health which are rarely taken into account” (Offer et al. 2010 pg. 307). These simple consequentialist considerations are indeed one of the two ways in which health inequalities findings can be employed by resource egalitarians to illustrate the moral merits of their proposal: there are benefits along with possible inefficiencies associated with economically more equal societies.

4.3.3 Equality of opportunity for health requires economic equality

A surprising result of Pickett and Wilkinson (2009) analysis is the strong correlation between income inequalities and unequal opportunities. One justification for highly unequal distribution of resources in societies is thought to lie in their “openness”: where the intervention on the outcomes of markets in term of income is small, inequalities are compensated by the fact that everybody has a real chance of improving his own condition. This seems to be false: there is a robust association between income inequalities and unequal opportunities (as measured by inter-generational social mobility) in studies that compare different countries: in Western Europe, the less mobile societies are the UK and Italy, whose level of income inequalities rank among the highest.

The most intuitive hypothesis regarding these findings is based on the observation that the effect might be mediated by schooling. One obvious advantage of richer families is the purchase of better schooling opportunities for their children. Public schooling or an efficient market of loans might be

thought to be effective in the removal of these inequalities in opportunity. Yet this policies are bound to be insufficient for at least two reasons: (1) results *in school* are not explained by schooling alone because they depend on broader environmental drivers that exert their effect very early in life (Cunha and Heckman 2010) and (2) school results explain just a part of income differentials (Franzini and Raitano 2011) and there is indeed a growing literature on school-independent soft skills that influence the performances of individuals in the job market (Bowles and Gintis 2002).

Among the channels of inheritance of economic inequality there is health and diet related diseases, since we have seen above that there is both a negative effects on income of obesity and diet related diseases and intergenerational inheritability of these conditions (section 1.2.1). In particular, epigenetic effects might render environmental exposure quite stable and difficult to remedy with downstream measures. Diet associated diseases illustrate again this issue.

A paradigmatic case is that of nutrition during pregnancy (Sullivan et al. 2011). Subtler features of maternal diets may program the newborn for conditions that will be visible only later on, e.g. high fat diets in mothers increase the risk of adult obesity in children (Chmurzynska 2010). Hence – quite independently from behavioral channels of transmission of childhood obesity, epigenetic programming may be partially responsible for the inheritance of dietary health conditions. At the current level of technological development, this speaks against downstream remedial measures and in favor – if we are to take equality of opportunity seriously – upstream interventions on families. Insuring that environments of development are not hugely different as a consequence of disparities in wealth would however require wide distributive efforts targeting inequalities in *outcomes* in parenting generations. Policy recommendations of the principle of equality of opportunity are thus no different from those of the ideals that it allegedly had to replace.

4.4 Conclusion: the meaning of social health inequalities for egalitarians

This chapter has focused on the prescriptive meaning of social health inequalities, within the general purpose of this thesis of analyzing the various justifications for public action against diet related diseases. I have preliminary argued that health is an appropriate focus of distributive justice. Also, I sketched the general sociological and cultural reasons that might lead to the emergence of a new consequentialist egalitarianism centered on resources (i.e. income, wealth). The purpose of this chapter has been that of situating the findings in social epidemiology within that new emerging framework: (a) health inequalities signals potential benefits of egalitarian policies and (b) their removal can be an effective tool for the pursuit of economic equality.

I illustrated this thesis – which crucially depends on empirical findings – by criticizing social philosophies that are influential among theoretician (4.2) or among decision makers (4.3) as for their relevance in this context. In the first case, the two theories that I took into consideration – despite capturing important concern regarding humanitarianism (Powers and Faden’s sufficientarianism in section 4.2.1) and the relations between citizens’ right and health (Norman Daniels’ theory in section 4.2.2) – cannot help in the philosophical reconstruction of the egalitarian turn in public health as sketched in 4.2.1. In the second case, I highlighted some moral weaknesses – to be added to those that had been the object of section 3.2 - of a neo-liberal version of egalitarianism centered on equality of opportunity.

The promises of preventive intervention in the fight against health inequalities and resulting socio-economic disparities provide strong arguments for action, strengthening the “ideology of the good choosers” objection to non intervention of section 2.2.3. Naturally, measures that do not worsen health inequalities are recommended. For instance, campaigns based on the delivery of information, even if they are able to reach everybody, will not be taken up equally across the population. This is not because health literacy is in general scarce among the disadvantage, but because further impediments to its actionability are often in place.

On the other hand, as suggested already in the conclusions of chapter 4, egalitarian considerations suggest a firm insistence on unconditionality in health care. While disparities in health behaviors will perhaps not disappear until the underlying inequalities are removed, the unconditional provision of services out of market remains a key distributive policy - since use is expected to be higher among the disadvantaged. Access to health services is however unequal in most countries, even those that put in place a robust health system, especially in specialist services (Hanratty et al. 2007). Addressing this issue is clearly recommended by the prescriptive considerations that were unfolded here.

5. Conclusion.

The Ethics of Public Health in the Face of Diet Related Diseases

In 1986, John Bailar and Elaine Smith published in “The New England Journal of Medicine” an article that “shook the world of oncology by its roots” (Mukherjee 2010). They calculated whether there had been any benefit from the decades long “war on cancer” based on aggressive innovation in surgery, chemotherapy and radiotherapy. They measured age-normalized cancer-related deaths between 1962 and 1985, the number of deaths due to cancer in the period correcting the figures to account for demographic shifts toward older cancer-prone populations. The result was shocking: cancer-related deaths had *increased* by 8.7 percent despite intense efforts. The measure of success chosen by Bailar and Smith is obviously not neutral: for the children who were cured of their leukemia those efforts made all the difference, nor it should be underestimated the effect that the *hope* for a cure makes to societal well being. Yet Bailar and Smith measure makes good sense of the rationale for public health. Mukherjee refers in the same context of a famous article by John Cairns (1985) on the “war on cancer”, where he sweepingly claims that “[since] the death rates from malaria, cholera, typhus, tuberculosis, scurvy, pellagra and other scourges of the past have dwindled because humankind has learned how to *prevent* these diseases [...], to put most of the *effort* into treatment is to deny all precedent”.

Aside from preoccupations regarding induction, there is a central problem with this claim: whereas the causative agents of infective diseases and the maladies resulting from malnutrition are complications of poor conditions, diet related diseases are side effects of processes that *improved* human welfare: food security and a more comfortable life in the first place. Since we should not want to undo these advantages, we must devise solutions against their side effects - diet related diseases. While people will continue to get sick, public health and social polices might minimize those avoidable damages. In this work, I defended some principles that can motivate, justify and guide that effort. Here is a summary.

Paternalism. While interventions against unhealthy choices violate antipaternalism concerns centered on liberty, I have argued that the latter are clearly overstated in public health or outright flawed. The only form of antipaternalism which should be taken seriously in this context is consequentialist and centered on welfare. That version of antipaternalism illuminates how the

empirical literature on individual decision making and cognitive limitations can be put at work in normative discussions. Where there are general reasons to believe that choices will be bad and there are dispositive of interventions that will not damage good choosers, interventions are legitimate and ought to be carried out under the general obligation of beneficence.

Personal responsibility for health. I distinguished the social consequences of personal dietary choices in effects on productivity and effects on health care costs. As for the former, I have argued that there are duties to be as productive as possible only in very specific circumstances, and certainly not in the context of diet related diseases. Also, I told apart two ways in which the impact on costs of bad diets might sustain appeals to personal responsibility for health: economic arguments and distributive arguments. While economic arguments are prescriptively uncontroversial but hardly relevant for empirical reasons, distributive arguments suffer of important moral flaws. In general, I recommend a skeptical attitude on responsabilization policies, which can be justified only if they might remedy serious issues of efficiency.

The moral significance of health inequalities. While arguing that previous proposals do not help in situating the fight against health inequalities in egalitarian social philosophies, I described the contribution that social epidemiology might offer to the effort to achieve robust economic equality, an ideal that is being re-invigorated by recent sociological and cultural developments. On one hand, the fight against social health inequalities might avoid the persistence of resource inequalities, especially trans-generationally. On the other hand, the very existence of diseases associated with social inequalities *illustrates* the goods that a renewed pursuit of equality might foster.

Philosophical ideals, while open to moral reasoning and criticism, will at the end be embedded in real-world political decisions that are taken – at least partially – also for other reasons. The practical recommendations of moral theory will be in this scenario only *roughly* applicable to real-world settings. They are not inert, though – i.e. they cannot be made coherent with any kind of

policy. In particular, I would like to suggest that the three theses above support a particular style of policy making that is definitely recognizable and distinguishable from its main opponent. Starting from the latter, policy making in general and social policy in particular have been increasingly focused on individuals, their responsibility, and their productive importance for society. More specifically, policy making has been viewed as a tinkering enterprise in the “structure of incentives” that socio-economically uncharacterized individuals encounter, a tinkering enterprise that should promote responsible choices and, when costly, justified in terms of returns to society, normally in terms of increased productive capacities and decreased social costs. Libertarian paternalism and its awareness of human limitations and constraints due to environments of choices is an important and welcome amendment of that tradition. Yet that tradition, if the three theses above are correct, suffers from several limitations – and it is not the only available alternative that we have.

Social epidemiologists have been focusing right away on environments and social conditions in the study of personal choice: their socio-economic consciousness provides a neat avenue into the “architecture of choice” that class-agnostic libertarian paternalists can reach only at the end of a clumsy detour. The case of responsibility is somehow similar: liberal egalitarians typically take up the *ethos* of responsibility just to realize that it is inadequate in socio-economically stratified societies. They must then take the philosophically implausible route of denying the possibility of personality-driven autonomous choices in disadvantaged people to save their egalitarian credentials. Why do not they recognize from the beginning that “responsibility” is the most typical tool of the conservatives and hence cannot be the base for any meaningful progressive social policy? It is however in the case of social health inequalities that contradictions are most apparent: concerned theorists resort to the language of personal entitlements and/or supply-side gains due to equal opportunity, thus entering into the meanders of most-debated philosophical issues and contentious economic theories. This is strange since they could easily point out the kind of goods that we expect in socio-economically equal societies from the advantageous point of observation of almost forty years of common experience in enlarging inequalities. While these detours are perhaps a strategically superior vehicle to advocate certain policies and solutions in the hostile environments of contemporary public rhetoric, for the sake of democratic debate, it would be better

to present clearly the main alternatives. This work was intended to be a contribution to the latter pursuit. The hope is that similar things can be said in the case of other challenging issues in social policy as well.

References

- Acemoglu, D. 2009. The Crisis of 2008: lessons for and from economics. Unpublished. Available on-line at: economics.mit.edu/files/3703.
- Alesina, A., and S., Ardagna. 2010. Large Changes in Fiscal Policy: Taxes versus Spending. In *Tax Policy and the Economy*. Vol. 24. Edited by Jeffery R. Brown. Cambridge, Mass.:NBER.
- , and Alberto, Giavazzi. 2007. *Il liberismo è di sinistra* (Neoliberalism is leftwing). Milano: ilSaggiatore.
- Anand, P., and A. Gray. 2009. Obesity as Market Failure: Could a “Deliberative Economy” Overcome the Problems of Paternalism? *Kyklos* 62(2): 182–190.
- Anandi, M., et al. 2013. Poverty impedes cognitive functioning. *Science* 341(976); DOI: 10.1126/science.1238041.
- Anderson E. 1999. What is the point of equality?. *Ethics* 109:287-337.
- Anomaly, J. 2011. Public Health and Public Goods. *Public Health Ethics* 4(3): 251–259.
- Archard, David. 2010. *The Family: A Liberal Defence*. Basingstoke: Palgrave Macmillan.
- . 2010. Why moral philosophers are not and should not be moral experts. *Bioethics* 25(3):119-27.
- , and Colin M. MacLeod. 2002. *The moral and political status of children*. Oxford: Oxford University Press.
- Arneson, R.J. 1989. Equality and equal opportunity for welfare. *Philosophical Studies* 56:77-93.
- . 2005. Joel Feinberg and the Justification of Hard Paternalism. *Legal Theory* 11(3):259-284.
- Averett, S., and S. Korenman.1996. The economic reality of the beauty myth. *Journal of Human Resources* 31:304-330.
- Bagnai, Alberto. 2012. *Il tramonto dell'euro* (The End of the Euro). Reggio Emilia: Imprimatur 2012.
- Barry, N. 1997. Conservative Thought and the Welfare State. *Political Studies XLV*:331–345.
- . 2006. Defending Luck-Egalitarianism. *Journal of Applied Philosophy* 23:89-10.
- Beauchamp, D. E. 2007. Community – The Neglected Tradition of Public Health. In *Public Health Ethics. Theory, Policy, and Practice*, edited by Ronald, Bayer. Oxford: Oxford University Press.
- Beauchamp, Tom L., and James F., Childress. 2001. *Principles of Biomedical Ethics*. 5th ed. New York: Oxford University Press.
- Bentham, Jeremy 1996 [1823]. *Introduction to the Principles of Moral Legislation*. Oxford: Clarendon Press.
- Berlin, Isaiah. 1969. *Four Essays on Liberty*. New York: Oxford University Press.
- Blanchard, O., and D., Leigh. 2013. Growth Forecast Errors and Fiscal Multipliers. IMF Working Paper.
- Boddington, P. 2010. Dietary choices, health, and freedom: Hidden fats, hidden choices, hidden constraints. *The American Journal of Bioethics* 10(3):43-44.
- Boehm, Christopher. 2001. *Hierarchy in the Forest. The evolution of egalitarian behavior*. Cambridge, Mass.: Oxford University Press.

- Boorse, C. 1977. Health as a Theoretical Concept. *Philosophy of Science* 44:542-573.
- Borowy, I. 2012. Global Health and Development: Conceptualizing Health between Economic Growth and Environmental Sustainability. *Journal of the History of Medicine and Allied Sciences* 68(3):451-485.
- Bowles, S., and H., Gintis. 2002. The inheritance of inequality. *Journal of Economic Perspectives* 16:3-30.
- Brancaccio, Emiliano. 2010. *La crisi del pensiero unico* (The End of the Pensée Unique). Milano: Franco Angeli.
- Brown, R. C., H. 2013. Moral responsibility for (un)healthy behaviour. *Journal of Medical Ethics* 1–4. Published Online First [January 11, 2013]. doi:10.1136/medethics-2012-100774
- Buchanan, A. 1984. The Right to a Decent Minimum of Health Care. *Philosophy & Public Affairs* 13(1):55-78.
- . 2011. *Beyond Humanity? The ethics of biomedical enhancement*. Oxford: Oxford University Press.
- Butelli, E., et al. 2008. Enrichment of tomato fruit with health-promoting anthocyanins by expression of select transcription factors. *Nature Biotechnology* 26(11):1301-1308.
- Buyx, A. 2008. Personal responsibility for health as a rationing criterion: why we don't like it and why maybe we should. *Journal of medical ethics* 34(12): 871–4.
- Cairns, J. 1985. The treatment of diseases and the war against cancer. *Scientific American* 253(5):51-59.
- Cappelen, A. W., Norheim, O. F. 2005. Responsibility in health care: a liberal egalitarian approach. *Journal of medical ethics* 31(8):476–80.
- Chmurzynska, A. 2010. Fetal programming: link between early nutrition, DNA methylation, and complex diseases. *Nutrition reviews* 68:87–98.
- Christakis, N. and J., Fowler. 2007. The spread of obesity in a large social network over 32 years. *The New England Journal of Medicine* 357: 370–379.
- Church, C., et al. 2010. Overexpression of Fto leads to increased food intake and results in obesity. *Nature Genetics* 42(12):1086-92.
- Cohen, G.A. 1989. On the currency of egalitarian justice. *Ethics* 99(4):906-44.
- . 2004. A Truth in Conservatism: rescuing conservatism from the Conservatives. Unpublished paper. Available at: politicalscience.stanford.edu/sites/default/files/workshop-materials/pt_cohen.pdf [accessed 15 May 2013].
- Cunha, F., and J., Heckman. 2010. Investing in our young people. *Iza discussion paper* n 5050.
- Daniels, Norman. 1978. Merit and meritocracy. *Philosophy & Public Affairs*. 7(3):206-223.
- . 1985. *Just Health Care*. Cambridge: Cambridge University Press.
- . 1990. Equality of What: Welfare, Resources, or Capabilities?. *Philosophy and Phenomenological Research*. Supplementary volume 50:273-96.
- , Kennedy, B., and I. Kawachi. 2000. Is Inequality Bad for Our Health?. In *New Democracy Forum Series*. Edited by Cohen, J. and J. Rogers. Boston: Beacon Press.

- . 2006. Equity and Population Health: toward a broader bioethics agenda. *The Hastings Center Reports* 36(4).
- . 2008. *Just Health: meeting health needs fairly*. Cambridge: Cambridge University Press.
- Dawson, A., and M. Verweij 2008. The Steward of the Millian State. *Public Health Ethics* 1(3):193–195.
- Dennet, Daniel. 1984. *Elbow Room: The variety of free will worth wanting*. Cambridge, Mass: MIT Press.
- De-Xing, H., et al. 2004. Molecular mechanisms behind the chemopreventive effects of anthocyanins. *Journal of Biomedicine and Biotechnology*. 5:321-325.
- Doll, R., and R., Peto. 1981. The causes of cancer: quantitative estimates of avoidable risks of cancer in the united states today. *J Natl Cancer Inst.* 66(6):1191-308.
- Dworkin, Gerald. 1972. Paternalism. *The Monist*, 56: 64–84.
- . 2010. Paternalism. In *The Stanford Encyclopedia of Philosophy*. Summer 2010 ed. edited by E.N., Zalta. Available at: <http://plato.stanford.edu/archives/sum2010/entries/paternalism/> [accessed 1 March 2012].
- Dworkin, R. 1981. What is equality? Part 2: Equality of Resources. *Philosophy and Public Affairs* 10:283-345.
- Dworkin, Ronald. 1977. *Taking Rights Seriously*. Cambridge, Mass: Harvard University Press
- . 2011. *Justice for Hedgehogs*. Cambridge, Mass.: Harvard University Press.
- Esping-Andersen, Gøsta. 1990. *The three worlds of welfare capitalism*. Princeton: Princeton University Press.
- . 2002. *Why we need a new welfare state*. New York: Oxford University Press.
- Estlund, David M. 2008. *Democratic Authority: a philosophical framework*. Princeton, NJ: Princeton University Press.
- Etzioni, Amitai. 1993. *The Spirit of Community*. New York: Crown Publisher.
- Fall, T., and E. Ingelsson. 2012. Genome-wide association studies of obesity and metabolic syndrome. *Mol Cell Endocrinol.* S0303-7207(12):00413-3.
- Feinberg, Joel. 1986. *The Moral Limits of the Criminal Law: Volume 2. Harm to Self*. Oxford: Oxford University Press.
- Ferrera, M. 2013. Neowelfarismo liberale: nuove prospettive per lo stato sociale in Europa (Liberal neo-welfarism: new perspectives for the European welfare state). *Stato e mercato* 97:1-35.
- Fischer, J., et al. 2009. “Inactivation of Fto gene protects from obesity”. *Nature* 458(7240):894-8.
- Fleck, L.M. 2011. Just caring: health care rationing, terminal illness, and the medically least well off. 39(2):156-71.
- Floud, Roderick, Robert W., Foegel, Bernard, Harris, and Sok Chul, Hong. 2011. *The Changing Body: health, nutrition, and human development in the western world since 1700*. Cambridge: Cambridge University Press.

- Frankfurt, H. 1988. *The Importance of What we Care About*. Cambridge: Cambridge University Press.
- Franzini, M. and M., Raitano. 2011. Non solo capitale umano: la disuguaglianza salariale e il funzionamento del mercato del lavoro. *Meridiana* 71-72:45-74.
- Gallino, Luciano. 2011. *Finanzcapitalismo. La civiltà del denaro in crisi* (Finance-capitalism. The crisis of the money civilization). Milano: Einaudi.
- Galston, W. A. 2010. Realism in Political Theory. *European Journal of Political Theory* 9(4):385-411.
- Gert, B. and C., Culver. 1976. Paternalistic Behavior. *Philosophy & Public Affairs* 6:45–57.
- Gesang, B. 2010. Are moral philosopher moral experts? *Bioethics* 24(4):153-9.
- Gordon, J.S. 2012. Moral philosophers are moral experts! A reply to David Archard. *Bioethics* Published ahead of print [Sep. 20]. Doi: 10.1111/j.1467-8519.2012.02004.x.
- Glover, J., M., Scott-Taggart. 1975. It makes no difference whether or not I do it. *Proceedings of the Aristotelian Society*. Supplementary Volumes. 49:171-209.
- Gortmaker, S., et al. 2011. Changing the future of obesity: science policy, and action. *Lancet* 378(9793):838-47.
- Gosseries, A. 2008. On future generation's future rights. *The Journal of Political Philosophy* 16(4):446-474.
- Gostin, L. 2004. Health of the people: the Highest Law? *Journal of Law, Medicine and Ethics* 32 (3):509-515.
- Gray, J. 1998. Where pluralists and liberals part company. *International Journal of Philosophical Studies* 6(1):17-36.
- Greene, Jeremy A. 2007. *Prescribing by Numbers: drugs and the definition of disease*. Baltimore: John Hopkins University Press.
- Grill, K. 2009. Liberalism, Altruism and Group Consent. *Public Health Ethics* 2:146–157.
- . 2012. Neutrality as a Constraint on Reasons. Paper presented at the Hamburg Spring School on Paternalism (March 2012).
- Guarducci, S. 2013. Il Sistema sanitario turco verso la copertura universale (Turkish health system toward universal coverage). In *Salute Internazionale* [12 Settembre 2013] available on line at: www.saluteinternazionale.info/2013/09=il-sistema-sanitario-turco-verso-la-copertura-universale/.
- Hales, C., and D. Barker. 2001. The thrifty phenotype hypothesis. *British Medical Bulletin* 60:5-20.
- Hanratty, B., Zhang, T., and M. Whitehead. 2007. How close have universal health systems come to achieving equity in use of curative services? A systematic review. *Int J Health Serv.* 37(1)89-109.
- Harris, J. 1987. QALYfying the value of life. *J Med Ethics* 13(3):117-123.
- , and S., Holm. 1995. Is there a moral obligation not to infect others?. *BMJ* 311:1215.
- Hausman, D.M. n.d. Problems with supply-side egalitarianism. Unpublished. Available on-line at philosophy.wisc.edu/hausman/papers/bowles.htm. [Accessed on 1st September, 2013].

- , and M.S., McPherson. 2006. *Economic Analysis, Moral Philosophy, and Public Policy*. 2nd ed. Cambridge: Cambridge University Press.
- Heath, J. 2011. Three Normative Models of the Welfare State. *Public Reason*. 3(2):13–43.
- Hirschmann, Albert O. 1991. *The Rhetoric of Reaction. Perversity, Futility, Jeopardy*. Cambridge, Mass.: Belknap Press of Harvard University Press.
- Holland, Stephen. 2007. *Public Health Ethics*. Cambridge: Polity Press.
- Holm, Søren, and Monique Jonas. 2004. *Engaging the World. The use of empirical sciences in bioethics and the regulation of biotechnology*. Amsterdam: Ios Press.
- Hsieh, N. (2008). Justice in production. *Journal of Political Philosophy*. 16(1):72-100.
- Jablonka, Eva, and Marion Lamb. 2005. *Evolution in four dimensions: genetic, epigenetic, behavioral and symbolic variation in the history of life*. Cambridge: MIT Press.
- Jennings, B. 2009. Public Health and Liberty: Beyond the Millian Paradigm. *Public Health Ethics* 2:123–134.
- Kahneman, Daniel. 2011. *Thinking, Fast and Slow*. New York: Farrar, Straus, and Giroux.
- Keller, S. 2009. Welfarism, *Philosophical Compass* 1:82–95.
- Keynes, John Maynard. 1997 [1936]. *The general theory of Employment, interest, and money*. Amherst, NY: Prometheus books.
- Kobayashi, S., et al. 2012. Reproductive history and breast cancer risk. *Breast Cancer* 19(4)302-8.
- Kymlicka, W. 1988. Liberals and Communitarians, *Canadian Journal of Philosophy*, 18, 181–204.
- Le Grand, J. 1992. Equity versus Efficiency: the elusive trade-off. *Ethics* 100(3):554-568.
- Lieb, W. 2013. Low wages in Germany and the European imbalance problem. Available at: www.nachdenkenseiten.de/?p=18499 [Accessed on the 11th September, 2013].
- Locke, John. 2003 [1690]. *Two Treatises of Government and A Letter Concerning Toleration*. Edited by I. Shapiro. New Haven, Conn: Yale University Press.
- Loi, M., Del Savio, L., and E. Stupka. 2013. Social Epigenetics and Equality of Opportunity. *Public Health Ethics* 6(2)142-153.
- Lundborg, P., Nystedt, P., and D.O. Rooth. 2010. No country for fat men? Obesity, earnings, skills, and physical fitness among 450.000 Swedish. *IZA working paper* no. 4775.
- Lustig, R.H., Schmidt, L.A., and C.D. Brindis. 2012. Public Health: the toxic truth about sugar. *Nature* 482:27-29.
- Maes H.H.M., Neale, M.C., and L.J. Eaves L. 1997. Genetic and environmental factors in relative body weight and human adiposity. *Behav Genet*. 27(4):325-51.
- Mameli, M. 2005. The Inheritance of Features. *Biology and Philosophy*, 20(2-3):365-399.
- Marmot, Michael. 2004. *The Status Syndrome: how social standing affects our health and longevity*. New York: Times Books.
- . 2005. Social determinants of health inequalities. *Lancet*, 365:1099-1104.

- , and Richard G., Wilkinson. 2006. *Social Determinants of Health*. 2nd ed. Oxford: Oxford University Press.
- , and Ruth, Bell. 2012. *Fair society, healthy lives: the Marmot review*. Strategic Review of Health Inequalities in England post-2010.
- McCormick, J. P. 2003. Machiavelli against republicanism: on the Cambridge school's Guicciardinian moments. *Political Theory* 31:615-643.
- McIntyre, Di, and Gavin, Mooney. 2009. *The Economics of Health Equity*. Cambridge, Mass.: Cambridge University Press.
- McPherson, J., et al. 2001. A physical map of the human genome. *Nature* 409(6822):934-41.
- Mill, J. S. 1991 [1859]. *On Liberty*. In *Collected Works: Vol. 5*. edited by J.M. Robson. Toronto and Buffalo: University of Toronto Press.
- Mukherjee, Siddhartha. 2010. *The Emperor of All Maladies: a biography of cancer*. New York: Scribner.
- Murphy, Liam, and Thomas, Nagel. 2002. *The Myth of Ownership. Taxes and Justice*. Oxford: Oxford University Press.
- Murray, Charles. 1984. *Losing Ground. American Social Policy 1950-1980*. New York: Basic Books.
- Nielsen, M. E. J. 2011. Republicanism as a Paradigm for Public Health: Some comments. *Public Health Ethics* 4(1):40–52.
- Nozick, Robert. 1974. *Anarchy, State, and Utopia*. New York: Basic Books.
- Nuffield Council of Bioethics. 2007. *Public Health: Ethical Issues*. London: Nuffield Council for Bioethics.
- Nussbaum, Martha C. 2011. *Creating Capabilities: the human development approach*. Cambridge, Mass.: Belknap Press.
- O'Donoghue, T., and M. Rabin. 1999. Doing it now or later. *American Economic Review* 89(1):103–124.
- Offer, A., Pechey, R., and S., Ulijaszek. 2010. Economics and Human Biology Obesity under affluence varies by welfare regimes : The effect of fast food, insecurity, and inequality. *Economics and Human Biology*, 8(3), 297–308.
- O'Neill, M. 2008. What should egalitarians believe?. *Philosophy & Public Affairs* 36(2):119-156.
- . 2010. The Facts of Inequalities. *Journal of Moral Philosophy* 7(3):397-409.
- Organization for Economic Development and Cooperation. 2011. *Divided we Stand. An overview of growing income inequalities in OECD countries*. Available at: www.oecd.org/els/social/inequalities [accessed May 2013].
- . 2012. *OECD Employment Outlook 2012*. Paris: Organization for Economic Development and Cooperation.
- Page, K., Seo, D., Belfort-DeAguiar, R., Lacadie, C., Dzuria, J., Naik, S., Amamath, S., Constable, R., Sherwin, R. and R., Sinha. 2011. Circulating glucose levels modulate neural control of desire for high-calorie foods in humans. *The Journal of Clinical Investigation*, 121:4161–4169.

- Pampel, F., Krueger, P., and J., Denney. 2010. Socioeconomic disparities in health behaviors. *Annual Review of Sociology* 36:349-70.
- Pani, L. 2000. Is There an Evolutionary Mismatch between the Normal Physiology of the Human Dopaminergic System and Current Environmental Conditions in Industrialized Countries?. *Molecular Psychiatry* 5:467-75.
- Parfit, Derek 1984. *Reasons and Persons*. Oxford: Clarendon Press.
- . 1997. Equality and Priority. *Ratio* X:0034-0006.
- Pembrey, M., et al. 2006. Sex-specific, male-line transgenerational responses in humans. *Eur J Hum Genet* 14(2):159-66.
- Pettit, Philippe. 1997. *Republicanism: a Theory of Freedom and Government*. Oxford: Oxford University Press.
- . 2001. *A theory of freedom: from the psychology to the politics of agency*. Oxford: Oxford University Press.
- Petruciani, Stefano. 2003. *Modelli di filosofia politica* (Models of political philosophy). Torino: Einaudi.
- Pickett, Kate and Richard, Wilkinson. 2009. *The Spirit Level: Why More Equal Society Almost Always Do Better*. London: Penguin/Allen Lane.
- Polanyi, Karl. 2001 [1944]. *The Great Transformation: The political and economic origins of our times*. Boston: Beacon Press.
- Popkin, B. 2001. The Nutrition Transition and Obesity in the Developing World. *The Journal of Nutrition* 131(3):871s-873s.
- . 2010. Agricultural Policies, Food, and Public Health. *Embo Reports* 12(1):11-18.
- Porter, Dorothy. 1999. *Health, Civilization and the State*. London, New York: Routledge.
- Powers, Madison, and Ruth R., Faden. 2009. *Social Justice: the Moral Foundations of Public Health and Health Policy*. Oxford, NY: Oxford University Press.
- , Faden, M., and Y., Shagai. 2012. Liberty, Mill and the Framework of public Health Ethics. *Public Health Ethics* 5,(1):6-15.
- Prainsack, Barbara, and Alena, Buyx. 2011. *Solidarity. Reflections on an Emerging Concept in Bioethics*. London: Nuffield Council on Bioethics.
- Radoilska, L. 2009. Public Health Ethics and Liberalism. *Public health ethics* 2(2):135–145.
- Ravelli, A.C., et al. 1999. Obesity at the age of 50 in men and women exposed to famine prenatally. *American Journal of Clinical Nutrition* 70(5):811-6.
- Rawls, John. 1971. *A Theory of Justice*. Cambridge, MA: Belknap Press of Harvard University Press.
- Reid, Walter V. 2005. *Millennium Ecosystem Assessment: synthesis report*. Washington, Island Press.
- Renaud, S. and M., de Loregril. 1992. Wine, alcohol, platelets, and the French paradox for coronary heart disease. *Lancet* 339:1523-1526.

- Roemer, J.E, 1993. A Pragmatic Theory of Responsibility for the Egalitarian Planner. *Philosophy & Public Affairs*. 22(2):146- 166.
- . 1998. *Equality of Opportunity*. Cambridge, MA: Harvard University Press.
- Reichlin, Pietro, and Aldo, Rustichini. 2012. *Pensare la sinistra: tra equità e libertà* (Re-thinking the left: between liberty and equity). Roma: Laterza.
- Resnik, D. 2010. Trans fat bans and human freedom. *The American journal of bioethics* 10(3):27–32.
- Roncaglia, Alessandro. 2005. *The Wealth of Ideas: a history of economic thought*. Cambridge: Cambridge University Press, 505-514.
- Sahlins, Marshall. 1972. *Stone Age Economics*. Chicago: Aldine-Atherton.
- Sandel, Michael. 2012. *What money can't buy: the moral limits of markets*. New York: Farrar, Straus and Giroux.
- Sanderson, S. 2009. Awareness of lifestyle risk factors for cancer and heart disease among adults in the UK. *Patient Education and Counseling* 74:221-227.
- Saraceno, C. 2013. Trasformazioni dei welfare state e/o spostamenti discorsivi. Un commento (Transformation of welfare states and/or discursive shifts. A comment). *Stato e mercato* 97:67-80.
- Sassi, Franco, and Organization for the Economic Cooperation and Development 2010. *Obesity and the Economic of Prevention*. Cheltenham: Edward Elgar Publishing.
- Scanlon, Thomas M. 1998. *What We Owe to Each Other*. Cambridge Mass.: The Belknap Press of Harvard University Press.
- Scheffler, S. 2005. Choice, circumstance, and the value of equality. *Politics, Philosophy & Economics* 4(1):5–28.
- Schmidt, V. 2008. Discursive Institutionalism: The Explanatory Power of Ideas and Discourse. *Annual Review of Political Science* 11:303-326.
- Searle, John. 1995. *The Construction of Social Reality*. New York: Free Press.
- Segall, Shlomi. 2009. *Health, Luck, and Justice*. Princeton, NJ: Princeton University Press.
- Sen, A. 1979. Utilitarianism and welfarism. *Journal of Philosophy* 76 (9): 463-489.
- . 1979. *Equality of what?* The Tanner Lecture on Human Values. Stanford University.
- . 1999. *Freedom as Liberty*. Oxford: Oxford University Press.
- Singer, Peter. 2002 [1979]. *Practical Ethics*. Cambridge: Cambridge University Press.
- . 2010. *The life you can save*. New York: Random House.
- Skipper, R. 2012. Obesity: Towards a System of Libertarian Paternalistic Public Health Interventions. *Public Health Ethics*, 5(2):181–191.
- Speliotes, E., et al. 2010. Association analyses of 249,796 individuals reveal 18 new loci associated with body mass index. *Nature Genetics* 42(11):937-48.
- Sternø, Steinar. 2004. *Solidarity in Europe. The History of an Idea*. Cambridge: Cambridge University Press.

- Stiglitz, Joseph. 2012. *The Price of Inequalities*. New York: W.V. Norton & Co.
- Strauss, J., Thomas, D. 1998. Health, Nutrition, and Economic Development. *Journal of Economic Literature* 36(2):766-817.
- Streeck, Wolfgang. 2013. *Tempo guadagnato* (Buying time). It transl B. Anceschi. Milano: Feltrinelli.
- Stuckler, David, and Sanjay, Basu. 2013. *The Body Economic: why austerity kills*. London: Penguin Group.
- Suhrke, M., et al. 2006. The contribution of health to the economy in the European Union. *Public Health* 120(11):994-1101.
- Sullivan, E.L., Smith, M.S., and K.L. Grove. 2011. Perinatal exposure to high-fat diet programs energy balance, metabolism and behavior in adulthood. *Neuroendocrinology* 93(1):1-18.
- Swinburn, B., et al. 2011. The Global Pandemic of Obesity: Shaped by Global Drivers and Local Environments. *Lancet* 378(9793):804-814.
- Thaler, R. and C. Sunstein, C. 2003. Libertarian Paternalism. *The American Economic Review*, 93, 175–179.
- . 2008. *Nudge: improving decisions about health, wealth, and happiness*. New Haven: Yale University Press.
- Trichopolou A., et al. 2003. Vegetable and fruit: the evidence in their favour and the public health perspective. *Int J Vitam Nutr Res*. 73(2):63-9.
- Tsuda, T., et al. 2003. Dietary cyanidin 3-O-beta-D-glucoside-rich purple corn color prevents obesity and ameliorates hyperglycemia in mice. *The Journal of Nutrition* 133:2125-2130.
- Ulijaszek, S. 2007. Obesity: a disorder of convenience. *Obesity Reviews* 8(19):183-7.
- United Nations Development Programme. 2013. *Human Development Report*. Available at: hdr.undp.org/en/reports/hdr2013/. [Accessed in October 2013]
- Valentini, L. 2011. Assessing the global order: justice, legitimacy, or political justice?. *Critical Review of International Social and Political Philosophy* 15(5):593-612.
- Verweij, M. 1999. Medicalization as a moral problem for preventive medicine. *Bioethics*, 13(2): 89-113.
- Voigt, K. 2013. Appeals to Individual Responsibility for Health. Reconsidering the Luck Egalitarian Perspective. *Cambridge Quarterly of Healthcare Ethics* 22:146-158.
- Von Hayek, Friedrich. 1944. *The Road to Serfdom*. Chicago: University of Chicago Press.
- Wansink, B. and M. Cheney 2005. Super Bowls: Serving Bowl Size and Food Consumption. *JAMA*, 294: 1727–1728.
- Waldron, J. 1986. Welfare and the images of charity. *The Philosophical Quarterly*, 36(145):463–482.
- . 1987. Theoretical foundations of liberalism. *The Philosophical Quarterly*, 37(147):127–150.
- Weber, Max. 1949 [1904]. Objectivity in Social Science and Social Policy. In *The Methodology of the Social Sciences*, edited by E., Shils, and H. Finch. New York: Free Press.

---. 1972 [1919]. *Politics as Vocation*. Philadelphia: Fortress Press.

West-Eberhard, Marie Jane. 2003. *Developmental Plasticity and Evolution*. Oxford: Oxford University Press.

Whitehead, M., 1992. The Concepts and Principles of Equity and Health. *International Journal of Health Services*. 22(3):429- 445.

White, M. 2007. Food access and obesity. *Obesity reviews : an official journal of the International Association for the Study of Obesity* 8 Suppl 1(30):99–107.

Wilkinson, S. 1999. Smokers' right to health care: why the "restoration argument" is a moralizing wolf in a liberal sheep's clothes. *J Appl Philosophy* 16:255-269.

Wilson, J. 2008. Health Inequities. In *Public Health Ethics: key concepts and issues in policy and practice*. Ed. By A. Dawson. Cambridge: Cambridge University Press.

---. 2011. Why It's Time to Stop Worrying About Paternalism in Health Policy. *Public Health Ethics* 4(3):269–279.

Wolff, Jonathan, and Avner, De-Shalit. 2007. *Disadvantage*. Oxford: Oxford University Press.

World Cancer Research Fund. 2007. *Food, nutrition, physical activity, and the prevention of cancer: a global perspective*. Washington DC: WCRF/AICR.

Wubben, D.P., and A.K., Adams. 2006. Metabolic syndrome: what's in a name?. *WMJ* 105(5):17-20.