Philosophical Definition of Freedom as Opportunity Sets

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ABSTRACT

PHILOSOPHICAL DEFINITION OF FREEDOM AS OPPORTUNITY SETS

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This work addresses the problem of the ambiguity and porousness of most of the traditional definitions of freedom, a concern that was raised most notably by Isaiah Berlin. The solution suggested in this work is that the concept of opportunity sets, which has been extensively discussed by economists, can be used as a philosophical definition of freedom. Under this definition, the concept of freedom is significantly more precise and less vulnerable to misinterpretation than most of the existing traditional definitions. Most importantly, freedom defined as opportunity sets can be measured and be proven to have value, in particular non-specific instrumental value.
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1 Chapter I: Introduction

In this Chapter I will identify the background of the problem and the objectives that I will try to accomplish in this work. In Section 1.1. I will outline my three basic tasks: arriving at a formal and abstract philosophical definition of freedom as sets of opportunities, arriving at a definition of value that freedom under such a definition may be proven to possess, and determining a method of measuring freedom and of measuring its value. In Section 1.2. I will discuss the background of this problem and will explain in more detail the reasons why addressing the three above tasks is of importance. I will refer to Isaiah Berlin’s essay as a recognised summary of some of the most common problems associated with traditional concepts of liberty, and will claim that the definition of freedom that I will defend (freedom as sets of opportunities) can solve these issues.

1.1 General Overview

In his essay Two Concepts of Liberty, Isaiah Berlin identified what I see being the most fundamental problem with the notion of freedom (liberty), namely that the definition is so porous, that it allows for a wide range of interpretations, even for contrary ones. This, he believed, made the idea of liberty easily manipulable by various political doctrines and thereby capable of being used to justify in its name dangerous practices including tyranny. Berlin distinguished between the traditional positive and negative concepts of liberty, and concluded that the negative concept (freedom as non-interference) is more coherent and truthful than the positive concept (which he associated with freedom as self-realisation), as the latter is much more vague, rhetorical and often unrealistically and dangerously utopian. Nevertheless, even the negative concept of freedom, according to Berlin as well as to numerous thinkers who analysed this theory in the decades following his essay, is still porous to a significant degree and is accompanied by a range of open questions and ambiguities, making it vulnerable to manipulation and

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contrary interpretations as well. Although he argued for a different conclusion, a decade later Gerald MacCallum identified the same issues with the traditional definitions of freedom, saying that their flexibility and the confusions they generate easily suit the purposes of polemicists and partisan groups, allowing each to interpret the concept of freedom in a way to justify their own views.  

Any attempt to resolve this set of problems, which all stem from the concept’s ambiguity and porousness, I believe, has to be based on the following three aspects:

a) identification of a simple and unambiguous abstract and formal definition of freedom, regarding which there can as little vagueness and debate as possible,

b) identification of the value of freedom under such a definition, i.e. why freedom is good (in his essay, Berlin does not explicitly divide his analysis into two separate discussions, one of the definitions of liberty and the other of its value under each of these definitions, but he clearly considers them throughout his analysis as two inseparable and interwoven concepts), and

c) identification of criteria and a method whereby it will be possible to determine presence or lack of freedom in a particular condition and consequently to measure and compare degrees of freedom contained in different comparable conditions.

These three questions are inseparable and are interrelated with each other. On the one hand, one can create a firm and a watertight formal definition of what freedom is, but not provide an argument for its value. In that case, however well-structured the definition of freedom may be, one can still wonder why and for what reasons one should value and seek freedom. The absence of an argument for the value of freedom will justify the replacement of freedom by other concepts that may be believed to have more value. On the other hand, one can create a convincing argument proving that freedom has value,

yet not supply a clear and simple definition that will allow one to determine what exactly freedom is. As a result, if the argument about the value of freedom is based on a loose and merely intuitive definition of freedom, freedom can be highly valued and desired in this case, but there will be a great range of different and contrary interpretations of what freedom is and of how it can be maximized or generated. Lastly, even if the first two points are satisfied, but no method is outlined for identifying presence or absence of freedom in particular situations and for comparing different situations in terms of the degree of freedom they possess, the definition of freedom and the argument for its value will remain merely theoretical concepts with no mechanisms for practical application.

Relatively recently, a third (neither explicitly positive nor explicitly negative) way of understanding freedom has been introduced and considered by a number of philosophers and economists, most notably by Ian Carter, Matthew Kramer and in a certain light by Amartya Sen, which is the concept of freedom as opportunity sets. This view does not seem to have received as much attention yet as the other more traditional concepts of liberty discussed by Berlin, however, I believe that this a breakthrough theory, as it can effectively solve most of the problems identified by Berlin that accompany the other more popular concepts of liberty. It can successfully address the three exact aspects required for a coherent and effective theory of freedom that I have identified above: a) it can set up a very unambiguous, rigid and simple, formal and abstract definition of freedom that can eliminate a wide range of ambiguities and disputes surrounding the definitions of freedom available under other theories b) it can contain a very strong and convincing argument for the value of freedom under this definition, which value, very importantly, can be proven to be a primary, non-specific and instrumental, meaning that it can be proven to be valuable to any non-specific agent regardless his or her preferences in any situation, and c) it establishes a mechanism and criteria for identifying and measuring freedom in particular conditions and for comparing comparable conditions to each other in terms of the degree of freedom they possess.
Let us now outline in some more detail how the concept of freedom as sets of opportunities addresses these three aspects.

**a)** The definition of freedom as sets of opportunities means that the agent’s freedom is determined and measured by the number or range of opportunities he or she is capable of undertaking. Opportunity itself is defined as that which the agent is *able* to undertake immediately once he or she decides to choose to undertake that opportunity. Through this approach I will conflate the differences between individual, political, social and other types of freedoms as well as, correspondingly, the differences between various types of unfreedom, such as inability, incapacity, coercion, and deliberate and non-deliberate interferences. If the agent is unable to undertake X, he or she is unfree to do that, regardless of the reasons for that inability. If the agent is able to undertake X, he or she is free to do that regardless of the reasons. At once, this approach eliminates the extensive debate regarding the question of where to draw the lines between inability and coercion and between political, social and individual freedoms.

Two other important points are that I will replace *action* as the object of freedom (that, towards which the agent free) with the *object of action*, and that I will eliminate the term of constraint from the definition of freedom. The lack of a precise definition of action raises a wide range of disputes as to what should be considered as an action when we say that an agent is free to a particular action. Once we replace it with the object of action (that, which the agent intends to achieve as a result of a particular action), then we can avoid the problems that accompany the question of defining action. Removal of the term of constraint from the definition of freedom will also allow us to avoid the debates that concern the problem of identifying the sources of constraint, whether present or potential. This will not under any circumstances de-emphasise the importance of the question of constraint from the discussion of freedom, it will only logically move it
from the discussion of pure definitions of freedom and unfreedom to the discussion of sources of freedom and unfreedom.

The intention is to make the definition as abstract, as formal and as content-free as possible, in order to arrive at a most simple and pure definition based only on simple evident truths, about which there can be little disagreement. This will eliminate the longwinded discussions and disagreements that arise as soon as more complex and intricate distinctions and specific content are introduced. I shall call this method atomistic, as we will take the multifaceted and porous concept of freedom with all its interpretations and variations, and will identify the most simplistic and singular elements thereof that underlie any and all instances of freedom in any conceivable situation, however complex of simple. These singular elements can remain simple and be effective as the foundation of the definition of freedom only if they are non-specific and are freed of any content. Using these non-specific simple elements one will then be able to express and define specific instances of freedom and of unfreedom in a variety of specific circumstances.

A good analogy is to think of how simple protons and electors, when arranged in different configurations, result in atoms of different chemical elements, and then, when the atoms of these different elements are combined, in different molecules of more complex compounds. Electrons and the protons are in a way non-specific: all electrons are identical to each other and all protons are identical to each other. There is nothing in the electrons that are part of the atoms of neon that makes them different from those electrons that are part of the atoms of sulphur: there is no content in an electron that makes it specifically a sulphur or a neon electron. Different elements, therefore, consists of electrons and of protons that by themselves are indistinguishable. That, which accounts for the differences between different elements, therefore is not the specificity and the properties of different protons and electrons, but different configurations and combinations of
these particles. Identifying the protons and electrons of freedom, which are different types of opportunities, will then allow one to analyse and express through them various specific complex instances of freedom, just like a specific substance, for example a specific instance water in a specific glass on a particular table can be identified through non-specific combinations of protons and electrons in the atoms of its molecules. The discovery of atoms and different elements allowed scientists to eliminate disagreement when identifying various instances of specific substances: they can identify the chemical formulae of different specific samples of substances and with precision determine what these substances are, and whether they are the same or different substance. Similarly, if we identify the non-specific particles of freedom, we will be able to eliminate a wide range of disagreement and ambiguities when considering what constitutes freedom and its different instances. The definition of freedom that will be arrived at thereby, will be neither positive nor negative but a single type, through which one can then express different instances of freedom, those that one can classify as examples of negative freedom and those that one can classify as examples of positive freedom. Similarly, this definition will be able to explain and define instances of freedom that are generally considered as instances of political, social, practical and other types of freedom. Hence, the atomistic approach will define the most basic principles of freedom, through which one can then express and explain a variety of different instances of freedom that are generally considered to be different types of freedom.

One of my goals here is to demonstrate that this definition of freedom as sets of opportunities can address most of the issues associated with traditional definitions of freedom, which were analysed by Berlin in *The Two Concepts of Liberty*. Although there were many discussions and critiques of Berlin regarding whether his distinction between positive and negative liberty is justified, the problems that he outlined and claimed to be associated with most of the traditional definitions of freedom are still very relevant. The variety of literature
that tries to answer these problems in various ways and the fact that there exists no consensus about them serve as a proof of this.

b) The argument for the value of freedom that this definition provides also rests on the definition being abstract and non-specific. To put it briefly, the argument is the following:

i) Each agent desires to satisfy or pursue his or her preferences, which he or she finds valuable (no agent desires or pursues something that he or she does not find valuable).

ii) Different agents have different desires and preferences (they find value in different things). Even a single agent’s preferences may change over time.

iii) When an agent voluntarily undertakes an opportunity, he or she pursues a preference or attempts to satisfy a desire, i.e. pursues something that he or she finds of value.

iv) “Freedom” here means the number or range of opportunities available to an agent. The greater the degree of freedom is, the greater is the range or number of available opportunities.

v) The more opportunities there are available to an agent, the greater is the probability that amongst these, there are some that he or she finds of value.

vi) Therefore, the greater the degree of an agent’s freedom is, the greater is the probability that there are opportunities available that are of value to the agent, regardless of what his or her current preferences or desires are, and regardless of what he or she find valuable at a given moment.

This argument provides a demonstration of freedom having instrumental value. It is instrumental in so far as freedom serves only as a means for an agent to

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3 This argument will be presented in a different and much more technical form further in this work. The description presented here merely serves as a succinct summary of its key principles.
attain those things, which he or she finds valuable. This argument, however, does not reject the possibility that freedom may have intrinsic value as well, as for instance Sen believes. The question whether freedom under this definition has intrinsic value or not is not something I am planning to discuss extensively: I only believe that there cannot be an argument to demonstrate freedom's intrinsic value strong enough to withstand criticism of sceptics and will not pursue it. The argument for freedom's instrumental value that I am defending, however, I believe can successfully withstand skeptical and relativist objections.

The argument provides a demonstration of freedom having instrumental non-specific value. It nowhere implies any specific opportunities and their specific content that an agent may or should find valuable. Different agents can find value in a range of different opportunities. One agent can find X valuable, another can find Y valuable and see no value in X. The fact that the instrumental value that this definition of freedom provides is non-specific, accommodates any preferences, regardless of their content, making freedom valuable to any and all persons with any preferences. Since, however, execution of some preferences of an agent may be harmful and deprive freedom of other agents (for instance if agent A desires and finds values in killing agent B), I will further present a set of distinctions, classifying different types of preferences with respect to their effect upon the freedom of multiple agents. These distinctions will also be strictly non-specific and free of content to accommodate any conceivable specific situations in various circumstances.

Lastly, the argument provides a demonstration of freedom having instrumental non-specific primary value. What I mean to define by the term primary value (it may not coincide with how this term was used by other thinkers), is that it makes an object valuable to the agent regardless of the content of the agent’s

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preferences and even if the agent does not find that object valuable. Hence, having more freedom is valuable to individuals with different and even contrary preferences, as freedom can provide different and contrary opportunities to choose from. Freedom’s value is blind to people’s preferences and desires, it is so to speak under the veil of ignorance as to who the agents and what their desires are. The greater the range of opportunities is, the greater is the probability that there will be something that a particular agent will find valuable. The value of freedom is a primary value also in the sense that more freedom is more valuable than less freedom, even if the agent subjectively does not find value in freedom and desires to enter a condition with less freedom. Imposition of this type of freedom (as sets of opportunities) against the agent’s will is never coercion or truly imposition, because of the fact that opportunities that freedom provides are by definition optional and their undertaking is always voluntary (the further discussion regarding the distinction between productive and reductive opportunities will provide more detail in relation to this argument). Given that an agent’s preferences might change, even if at this moment the agent strongly believes that he or she only desires X and will never desire Y and Z, and thus will resist the imposition of freedom upon him or herself, which in addition to the now available X will also provide the options of Y and Z, this addition of freedom is still valuable to the agent, even if he or she disagrees. It does not deprive the agent of the opportunities available at the moment or previously, but grants additional opportunities, which the agent is by no means forced to undertake, but will be able to in case his or her preferences will change in the future.

c) As a result, this concept of freedom that is non-specific and that has non-specific value, to which Ian Carter also refers in his book A Measure of Freedom as “the concept of overall freedom”\textsuperscript{5}, allows one to measure and identify freedom in particular situations. This allows freedom and its value to be more than just a

theoretical concept: they become concepts applicable to and identifiable in specific and particular instances. Since freedom consists of non-specific particles (opportunities), the degree of freedom in a condition (a particular situation a given agent is in) is thus measured by the number or range of opportunities that are present in it, regardless of what the content of these opportunities is (I shall explain further how different opportunities can nevertheless be classified into different types in terms of their value without referring to their content or making them specific). Measuring the degree of freedom in a singular condition itself is of no particular use and will result in an arbitrary measure, but its importance becomes evident when more than one comparable conditions are compared to each other in terms of the degree of freedom each possesses. It allows to make statements such as “condition X has a greater degree of freedom and is therefore more valuable in terms of freedom than condition Y, which has a smaller degree of freedom”, and these can be objectively true statements. Ability to make objectively true claims like this are of particular importance in making choices, in making decisions either for oneself or for others as to which condition out of several alternatives is the one to seek, based on how much freedom and value it contains. These evaluations of degree of freedom and of value in different comparable situations do not depend on any particular preferences of the agents, but are also so to speak under the veil of ignorance as to the agent’s preferences and desires. The condition out of several alternatives that has more freedom and is thus more valuable, is the one that has a greater range of opportunities available, and hence a greater overall preference satisfaction capacity.

This theory has a number of similarities with Amartya Sen’s and Martha Nussbaum’s capability approaches, with the main exceptions that Sen believes that freedom has intrinsic value and that Nussbaum in particular focuses on specific capabilities (what she calls human capabilities). My argument, however, is aimed to prove that freedom’s value is instrumental and non-specific. In that way, unlike Sen’s and Nussbaum’s
capability approaches, my argument outlines only abstract non-specific and content-free opportunities. Importantly, however, my theory does not necessarily contradict the conclusions of the capabilities approach. First, I am not trying to disprove that there can also exist a different, additional value of freedom that is intrinsic, I only believe that a far stronger argument in defense of the instrumental value of freedom can be made. Second, as regards any specific capabilities defined by references to their content (such as health, sense, affiliation, etc.) I am not arguing against any of these, but on the contrary, I am formulating an argument that would define and outline the value of non-specific and content-free opportunities, which can then justify the value of any such specific human capabilities that Nussbaum outlines\(^6\). In other words, in virtue of the theory of freedom as sets opportunities that I am defending being abstract and non-specific, I am thus defending a theory that can serve as a solid foundation or a formula, into which any specific capabilities or opportunities that are defined by their content (such as those from Nussbaum's list) can be plugged and shown to have value.

### 1.2 The problem to be addressed and its background

To outline the main problems that the approach I am defending is aimed at solving, I will mainly refer to Berlin's *Two Concepts of Liberty*, as he quite succinctly and accurately points out and summarises the main issues with the traditional concepts of freedom. Of course, there is a great mass of literature that was written afterwards that is dedicated to addressing the same issues in a variety of ways, but for the purposes of this work I do not find it necessary to delve into that. Instead, I will only concentrate on how the concept of freedom as sets of opportunities in particular can resolve the key problems described by Berlin. At the end of this work, I will show how the definition of freedom as sets of opportunities that I am defending will be able to resolve a number of these issues identified by Berlin.

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Berlin identified the distinction between the positive and negative theories of freedoms, which have a number of variations. He emphasised a range of unanswered questions and ambiguities accompanying both of these notions of freedom that allow and give a lot of room for various and even contrary interpretations of what freedom is. He explains that “[l]ike happiness and goodness, like nature and reality, the meaning of this term [freedom] is so porous that there is little interpretation that it seems able to resist.” This, he believes, is dangerous, for it renders the notion of freedom a manipulable concept that can be interpreted to fit different and even contrary political doctrines. Berlin claims that

...there has, perhaps, been no time in modern history when so large a number of human beings, both in the East and West, have had their notions, and indeed their lives, so deeply altered, and in some cases violently upset, by fanatically held social and political doctrines. Dangerous, because when ideas are neglected by those who ought to attend to them—that is to say, those who have been trained to think critically about ideas—they sometimes acquire an unchecked momentum and an irresistible power over multitudes of men that may grow too violent to be affected by rational criticism. […] Yet, despite every effort to separate them, conducted by a blind scholastic pedantry, politics has remained indissolubly intertwined with every other form of philosophical inquiry.

Thus Berlin suggests that the fact that the philosophical concept of freedom and of its different elements and variations have not been thoroughly analysed and defined, but have been left loose, can have devastating consequences in the real world, as the notion of freedom can be easily employed by various political forces with effects harmful to humanity.

It is important to mention that MacCallum, who criticised Berlin’s dichotomy between positive and negative liberty and suggested a triadic formula that he believed would

8 Ibid, p. 119.
encompass the aspects of both of these types of freedom, also pointed out to similar problems that stem from ambiguity and flexibility of the traditional definitions of freedom:

Further, any of the above disputes may stem from or turn into a dispute about what freedom is. The borderlines have never been easy to keep clear. But a reason for this especially worth noting at the start is that disputes about the nature of freedom are certainly historically best understood as a series of attempts by parties opposing each other on very many issues to capture for their own side the favorable attitudes attaching to the notion of freedom. It has commonly been advantageous for partisans to link the presence or absence of freedom as closely as possible to the presence or absence of those other social benefits believed to be secured or denied by the forms of social organization advocated or condemned. Each social benefit is, accordingly, treated as either a result of or a contribution to freedom, and each liability is connected somehow to the absence of freedom. This history of the matter goes far to explain how freedom came to be identified with so many different kinds of social and individual benefits, and why the status of freedom as simply one among a number of social benefits has remained unclear. The resulting flexibility of the notion of freedom, and the resulting enhancement of the value of freedom, have suited the purposes of the polemicist.9

The “positive” notion of liberty, according to Berlin rests on the distinction between two selves of a person, the current self, and an ideal self. Freedom under this theory is thus attained when a person is transformed or liberated from his or her current self to his ideal self, even if this liberation or transformation may be enforced against the will of one’s current self. To mention briefly, some examples of this theory include the idea of self-realisation through knowledge and rationality and the idea of limitation of one’s own preferences.

According to the first one, one becomes free when one fully realises one’s own ability to think rationally and attains a significant degree of knowledge about the world and thus

liberates oneself from his or her state of ignorance. According to this view, people may not know what is best for them, which justifies coercion against their will by other agents, especially by the state. Some proponents of this view may go as far as to claim that this type of coercion is not in fact coercion at all, and is not against the will of the person, because there exists a subconscious “true” self in a person that realises that the thing he or she is coerced to do is in fact good for him or her. Berlin claims that “[e]nough manipulation with the definition, of man, and freedom can be made to mean whatever the manipulator wishes. Recent history has made it only too clear that the issue is not merely academic.”

He adds that “[s]ocialized forms of [this view], widely disparate and opposed to each other as they are, are at the heart of many of the nationalist, communist, authoritarian, and totalitarian creeds of our day. It may, in the course of its evolution, have wandered far from its rationalist moorings.”

According to the second example, a person is unfree when his or her desires or preferences overreach one’s own abilities. A person can thus attain freedom or be liberated, by curtailing his or her own preferences, and thus ceasing to desire that, which one is not able to achieve. This view can also justify coercion against somebody’s will, because “…[i]f the tyrant (or ‘hidden persuader’) manages to condition his subjects (or customers) into losing their original wishes and embrace (‘internalize’) the form of

11 Ibid. p. 144.
life he has invented for them, he will, on this definition, have succeeded in liberating
them."\textsuperscript{12}

In short Berlin suggests that the notion of positive freedom and its variations has often
been historically used by political forces to justify tyranny and coercion. He associates
its theoretical origins with Rousseau and to some extent Kant, but concludes it was this
view, that allowed tyrannies, from the Jacobins during the French Revolution to the
totalitarian regimes of the 20th century to coerce and destroy individuals in the name of
liberty. Although one can claim in response to Berlin that these tragedies occurred
because of misapplication of the concept of liberty that he defines as positive, this still
means that this concept was porous enough to allow for such easy misapplications and
misuse. It did not contain explicit mechanisms in its definition that would prevent any
such misinterpretations or at least make them inconveniently hard or obviously illogical.
It is true that many tyrants have used a range of different theories and philosophical
concepts to justify crimes, however it is also true that too many of them did find the
concept described by Berlin as positive liberty to be sufficiently convenient for this
purpose.

Berlin does seem to believe, however, that there is one small advantage that a
reasonable variation of the positive concept of liberty might provide in some
circumstances. In particular, some coercion against one’s will may be justified in some

\textsuperscript{12} Berlin, "Two Concepts Of Liberty," p. 140.
rare cases for the person’s own interest: “But what gives such plausibility as it has to this kind of language is that we recognize that it is possible, and at times justifiable, to coerce men in the name of some goal (let us say, justice or public health) which they would, if they were more enlightened, themselves pursue, but do not, because they are blind or ignorant or corrupt.” In this passage Berlin is recounting the arguments of the proponents of the positive notion of liberty, but it seems that he agrees that in some rare cases coercion may be justifiable against one’s will (I think this is also evident when he discusses coercion in the context of negative freedom, which can be necessary to protect individuals’ own freedoms).

The concept of negative liberty Berlin defines as when one is “said to be free to the degree to which no man or body of men interferes with [one’s] activity. Political liberty in this sense is simply the area within which a man can act unobstructed by others.” He identifies its origins with the British thinkers, in particular Locke and Mill, and emphasises as its essence the protection of an individual’s ability to choose his or her own goals in life, as opposed to, what proponents of positive freedom promote according to Berlin, imposition of one goal and an ideal way of life upon all people, even it contradicts their will. Berlin openly favours this this definition of liberty, as a much less ambiguous and a much less dangerous one than that of “positive” liberty. He claims that

14 Ibid. p. 122.
...[p]luralism, with the measure of ‘negative’ liberty that it entails, seems to me a truer and more humane ideal than the goals of those who seek in the great, disciplined, authoritarian structures the ideal of ‘positive’ self-mastery by classes, or peoples, or the whole of mankind. It is truer, because it does, at least, recognize the fact that human goals are many, not all of them commensurable, and in perpetual rivalry with one another.15

Importantly, Berlin believes that many of the values that humans hold as essential, such as liberty, equality, justice, etc., are not always compatible, but may often, in many instances in the real world, be contrary to each other, i.e. implementation or pursuit of one of them may infringe upon another one. He holds that the proponents of the positive notion of liberty are wrong in thinking that one can create a universal formula that when implemented, will promote all these values to the maximum extent. Berlin thus emphasises and appreciates that the negative notion of freedom does recognise this plurality of values and their potential incompatibility, for, as Mill also believes, it protects each individual's ability to pursue what they personally think is important to them.16

To assume that all values can be graded on one scale, so that it is a mere matter of inspection to determine the highest, seems to me to falsify our knowledge that men are free agents, to represent moral decision as an operation which a slide rule could, in principle, perform. To say that in some ultimate, all reconciling, yet realizable synthesis, duty is interest, or individual freedom is pure democracy or an authoritarian state, is to throw a metaphysical blanket over either self-deceit or deliberate hypocrisy. It [negative concept of freedom] is more humane because it does not (as the system builders do) deprive men, in the name of some remote, or incoherent, ideal, of much that they have found to be indispensable to their life as unpredictably self-transforming human beings. In the end, men choose between ultimate values; they choose as they do, because their life and thought are determined by fundamental moral categories and concepts that are, at any rate over large stretches of time and, space, a part of their being and thought and sense of their own identity; part of what makes them human.17

Although Berlin holds the concept of negative liberty as a much more accurate and philosophically coherent one compared to the concept of positive liberty, he still identifies some of the issues and ambiguities that it is accompanied by. After Berlin’s essay, there has been a great mass of literature addressing and attempting to solve these issues, as each of these issues generated an extensive debate. I will only, however, provide a summary of these questions as identified by Berlin, with some additional comments and expansions from myself. The following are the key problems and ambiguities identified with the concept of negative liberty:

1) The question of value of freedom. Proponents of the negative concept of liberty clearly believe that freedom has value, but do not have a strong analytical argument explaining the source of the value of freedom that they would all agree upon. Some, like Locke, believe that the right of an individual to be protected from interference stems from and is justified by nature\(^\text{18}\), others, like Mill, believe that freedom is valuable because it is also conducive to creativity and productivity of an individual.\(^\text{19}\) Berlin, however, claims that this latter view can only be supported at best empirically, but even then there are many historical examples where creativity and productivity flourished in places where there was very little individual freedom. There is, therefore, also no consensus amongst proponents of the concept of negative freedom on whether its value is instrumental or

\(^{19}\) Mill, “On Liberty”, Chapter III.
intrinsic. This lack of a strong argument to show that freedom has value makes
the whole concept of negative freedom extremely vulnerable to attacks, in
particular by relativists and sceptics. If freedom has no value, however you define
freedom, why it is important and worth seeking? Should not equality, justice,
knowledge, rationality or other values overtrump it?

2) The question of value of freedom without the adequate conditions for its use. “It
is true that to offer political rights, or safeguards against intervention by the state,
to men who are half naked, illiterate, underfed, and diseased is to mock their
condition; they need medical help or education before they can understand, or
make use of an increase in their freedom.”20 Is Robinson Crusoe living on an
uninhabited island, whose life and activities are not interfered by anyone else, but
who has no access to basic necessities and supplies, in fact free? Is an illiterate
person who has not access to education, but who is protected from interference
from the state and from his or her neighbours, also free?

3) The question of what constitutes unfreedom, namely whether it is coercion by the
state, intentional or unintentional interference by other agents, or also inability of
the agent him or herself, and if inability then of what kind. If a person cannot
afford to buy something, is he or she unfree to buy it, or merely incapable of
buying it? If a person voluntarily quit his or her job and now cannot afford to buy
something is he or she equally unfree compared to if his or her lack of money
was caused by inability to find a job, or because his or her money was stolen?

Berlin thinks that different theories of political and social freedoms will propose different answers to this.

4) The question of whether liberty can be enjoyed at the expense of others, and consequently the question of reconciling freedom with equality and justice. "One or other, of these conflicting rules or principles must, at any rate in practice, yield: not always for reasons which can be clearly stated, let alone generalized into rules or universal maxims. Still, a practical compromise has to be found."\textsuperscript{21} Is the freedom of a tyrannical Egyptian slave owner valuable and justified if considered together with the interests of his slaves?

5) The question of permissible limits of coercion and of interference by the state (the extent to which one’s freedom can legitimately be curtailed in order to protect the freedom of others as well as the freedom of that one individual him or herself), and consequently where the area of private life and public authority should be drawn. "We cannot remain absolutely free, and must give up some of our liberty to preserve the rest. But total self-surrender is self-defeating. What then must the minimum be? That which a man cannot give up without offending against the essence of his human nature. What is this essence? What are the standards which it entails? This has been, and perhaps always will be, a matter of infinite debate."\textsuperscript{22} What are the criteria for identifying the boundaries within which the government can coerce its subjects for the purpose of promoting their

\textsuperscript{22} Ibid, p. 127.
freedom? Hobbes and Hayek, both of whom are proponents of the concept of negative liberty, would have very different standards for this.

6) The question of the source of liberty and the source of political authority. Berlin points out that freedom as non-interference does not imply and is not in any way logically connected to self-government and democracy. It can be in fact compatible in theory with an autocratic government that decides to allow its subject a significant degree of liberty, whilst still having absolute control over them. Is the guarantee of protection from interference necessarily dependent on any particular type of political system? Should it or should it not?

Once I will complete the demonstration of the arguments as per section I (A) in the following chapters, at the end of this work I shall return in the conclusion to the problems and ambiguities enumerated above (as per Berlin's analysis) and will show how the definition of freedom as sets of opportunities is capable of solving them.
2 Chapter II: Formal Definition of Freedom

In the Chapter I, I outlined the method that I plan to pursue in defending the theory of freedom as sets of opportunities. I also summarised a set of problems that I believe this theory of freedom will be able to solve. Chapter II will concentrate specifically on arriving at a formal philosophical definition of freedom, and in it I will not discuss the questions of the value that freedom may have and of measuring freedom. In 2.1. I will briefly outline the differences and similarities of my approach to that of Ian Carter's, who is defending a very similar concept of freedom. In 2.2. I will proceed with presenting the most simple and basic elements that an abstract and foundational definition of freedom needs to possess. In 2.3. I will show how such basic and simple elements of the definition of freedom will allow one to conflate a number of different types of freedom (such as negative and positive, and political and individual, etc.). My argument will be that these are not different types of freedom, but are simply different expressions and instances of freedom, that can nevertheless be all expressed through the same fundamental and simple elements that underlie all instances of freedom. In 2.4. I shall advance the definition of freedom from that which concerns only one individual agent and individual objects of freedom (specific freedom) to overall and group concepts of freedom, i.e. definitions of freedom that concern multiple agents and multiple objects.

2.1 Overview of the Chapter

The concept of freedom that I will arrive at will turn out to be quite similar to that of Carter's, as it will share some of the integral aspects upon which his concept rests. First, it is the principle that freedom, in addition to being a mere relation between agents and actions, is also a property, which an agent can be said to possess. Second, it is the view that in addition to mere specific freedoms (freedom of a specific agent in relation to a specific action), there also exists the concept of overall freedom that is non-specific and which is the combination of all specific freedoms that an agent possesses in a particular condition. The third aspect is that the distinction of negative and positive liberties can be conflated, as instances of either of the two types of freedom can be
expressed using the formula of overall freedom. The fourth aspect is that the emphasis in determining freedom rests not on the absence, presence or the sources of constraints or interferences, but on the unconstrained actions themselves that are available to the agent. The fifth, sixth and seventh aspects, which the first three principles enable are the following: a) the view that freedom can be measured and agents in different conditions can be said to have different degrees of freedom, b) the view that freedom has value that is non-specific and instrumental, and c) the view that freedom should be measured entirely through the empirical approach, as opposed to value-based approach (i.e. we should be able to measure freedom without assigning different values to opportunities based on their content). The latter three aspects will be dealt with in the chapters to follow. However, I am planning to pursue a slightly different method to arrive at my definition from the method which Carter used that I shall briefly outline below.

Apart from key methodological differences (explained below), I will introduce the following aspects that are not part of Carter’s theory (their relevance will be explained further in the corresponding sections): a) the view that we can remove the element of constraint from the definition of freedom and place it into a logically separate discussion of sources of constraints, b) the view that instead of the action that the agent is free towards in the definition of freedom, we can use the concept of intended object (result) of action, c) the system of reductive and productive opportunities, which will allow one to assess the value of opportunities without referring to their content and without referring to the content of the agent’s preferences.

In the beginning of A Measure of Freedom, Carter explicitly presents the goal of formulating such a definition of freedom that will be measurable and will have value, so that it could enable and justify a theory of justice that would be grounded on these very concepts of measurability and value of freedom. Thus, his method for arriving at the definition is deductive: first, he envisions the goal of a particular theory of justice, which requires measurability of freedom, and then he designs a definition of freedom that will serve this goal:
justice places demands on our powers of measuring freedom, and our powers of measuring freedom are in turn partly determined by the nature of freedom. Arguments about the nature of freedom and arguments about its measurement are indeed interdependent. It will not do, then, simply to give the ‘correct’ definition of freedom at the outset and subsequently to ask whether and how far freedom, on that definition alone, is measurable. Rather, we need to place the concept of freedom within the wider context of a theory of justice, and to seek a kind of ‘reflective equilibrium’ involving the two.\textsuperscript{23}

Carter aims to defend the view that freedom as such is a fundamental good in liberal thinking and that a liberal theory of justice should have freedom as such as one of its core values. He begins his argument by addressing the group of thinkers (Ronald Dworkin and Will Kymlicka in particular), who believe that overall freedom as such does not exist, has no value and cannot be measured, and that there only exist specific freedoms (freedom types) that are valuable not because they are freedoms, but because of the specific things or actions that they give access to. Carter thus explains the distinction between overall and specific freedoms: specific freedoms are specific types of freedom, such as freedom of the press, freedom of assembly, etc. and are defined by their objects, whereas overall freedom is freedom in itself as a good, without specification of any particular type of freedom or particular objects it can bring about. Carter concludes, that in order for freedom to be a fundamental good in a liberal theory of justice, it can only be defined as overall freedom, freedom in itself, as no fundamental value can be attached to specific freedoms, but only to specific things they bring about.\textsuperscript{24} Therefore, Carter’s method of arriving at a definition of freedom is grounded in and begins with the goal of ensuring that the definition of freedom allows to assign freedom value of its own and make it a fundamental good in a liberal theory of justice.

I, however, plan to pursue a different, inductive method, as I want to demonstrate that the definition of overall freedom is not merely artificially designed for the purpose of

\textsuperscript{23} Carter, \textit{A Measure of Freedom}, p. 5.
\textsuperscript{24} Ibid. p. 11.
making it measurable, valuable and being able to justify a particular theory of justice (although it will still possess all these properties and functions), but that it is in fact the ‘correct’ one, being the most logical, non-porous, unambiguous and functional definition out of all possible, as this approach will provide a much stronger and firmer argument in support of similar conclusions. Unlike Carter’s strategy, which starts with the goal of refuting the specific freedom thesis (the theory that rejects the view that overall freedom exists and can be a fundamental good in a liberal theory of justice), my strategy is to begin with the goal of solving the problem of porosity, ambiguity and manipulability of the heretofore available definitions of freedom, which problem was identified and was the central question in Berlin’s and MacCallum’s essays. Only once a narrow, functional and non-porous definition is arrived at, will I be able to enquire into its potential, including whether under such a definition freedom can have value, be measurable and be used to build upon itself a political theory.

As it will be found by the end of this chapter, the definition of freedom that I will arrive at will result in a theory of freedom as sets of opportunities. On the one hand, there is a significant amount of literature that concerns itself with questions regarding a formal philosophical definition of freedom. Isaiah Berlin, Gerald MacCallum, Felix Oppenheim and Kristján Kristjánsson being some of the examples. On the other hand, there is also a significant amount of literature that deals with the theory of freedom as opportunity sets. Prasanta Pattanaik and Yongsheng Xu, Nicolas Gravel, Ricardo Arlegi, Amartya Sen being some of the examples. With the exception of Ian Carter, Hillel Steiner and Matthew Kramer, however, there is very little literature that links these two questions, despite they are logically inseparable. Most works that are dedicated to formal philosophical definitions of freedom do not end up endorsing or arriving at a theory of freedom as sets of opportunities, whereas most works that are dedicated to endorsing and explaining a theory of freedom as set of opportunities barely touch upon presenting, not to speak of developing an abstract formal philosophical definition of freedom to substantiate their theory. Instead, they almost immediately proceed to discussing questions such as value, measurability or distribution of freedom under this theory,
without having provided a philosophical definition for it first. What may explain this, is that almost all of the proponents of this theory are economists or wrote in journals in economics, including Prasanta Pattanaik and Yongsheng Xu, Nicolas Gravel, Ricardo Arlegi, Amartya Sen, Sebastiano Bavetta, Walter Bossert, Robert Sugden and others. Hence, their primary focus is to analyse the functions, effects and other aspects of this theory, without first defending a philosophical justification and providing a formal and abstract non-consequential and non-empirical argument for it.

One of the unintended results of this chapter, therefore, will be making up for and supplying this missing link, by providing a formal abstract philosophical definition of freedom that will happen to justify and serve as a foundation for a theory of freedom as sets of opportunities. My atomistic method, as described earlier, is to begin with the most simple and foundational abstract particles, their definitions, essences and the principles guiding their relations, and only then use these as building blocks in proceeding to develop further, more complex levels. Since Carter’s *A Measure of Freedom* in my opinion contains the most successful and extensive discussion of the same questions, I will consider and present his arguments that are relevant to the points that I will be addressing.

Before proceeding to my argument, I shall, therefore, briefly explain below some of the key principles of Carter’s argument that will be of importance to my discussion. His definition of freedom rests on the distinction between specific and overall freedom. Specific freedom can be expressed as a relation between the agent, a particular action that the agent can make and the absence or presence of a constraint, which is a triadic relation: “agent R is, with respect to agent P, free or unfree to do x.” A number of thinkers, like Felix Oppenheim, believe that all freedom is necessarily specific as it is a relation between the agent, the constraints and the action. They think that, therefore, freedom is not a property or attribute, and consequently cannot be measured and be

said to pertain to any individuals or conditions: any instance of freedom is a relation between specific agents and specific actions.\textsuperscript{26} They believe that, therefore, it is also impossible to speak of overall freedom and of degrees of freedom. For this reason, Kristján Kristjánsson, who agrees with Oppenheim’s view, claims that “freedom is not something that one happens to possess or stumble across like a chest of gold, it is a relation between agents.”\textsuperscript{27}

Carter, however, believes that specific freedoms combined constitute what he calls overall freedom that can be measured and said to pertain to individuals or conditions as a property. In the original formula “R is, with respect to agent P, free to do x”, it is specific quantifiers that are implied in all three variables: specific agent R, with respect to specific agent P, is free to do specific action x. However, Carter suggests we can apply universal quantifiers to the latter two variables, which will result in “R is free overall to the extent that R has all of the specific freedoms that R can conceivably have.”\textsuperscript{28} He then explains that “[g]iven this definition, an agent's overall freedom can be expressed as a fraction, which represents the proportion of conceivable actions which the agent is not prevented (by any other agent) from performing.”\textsuperscript{29} This, he holds, allows freedom to be a property instead of a mere relation, which can be thus measured in various instances. The idea of measuring freedom as a fraction was first suggested by Hillel Steiner, which in his own words is as follows: “Take a list of actions $L_{1}$ and discover, which of them Red [the agent] is respectively free or unfree to do. Let $F_{r}$ and $U_{r}$ respectively stand for the total numbers of Red's free and unfree actions. To ascertain how free Red is, we need only to establish the value of $F_{r}/F_{r}+U_{r}$.”\textsuperscript{30}

\begin{itemize}
\item \textsuperscript{26} Felix Oppenheim, \textit{Dimensions of Freedom: An Analysis} (New York: St Martin's Press, 1961).
\item \textsuperscript{28} Carter, \textit{A Measure of Freedom}, p. 28.
\item \textsuperscript{29} Ibid., p. 28.
\end{itemize}
I will argue in support of Carter’s notion of overall freedom as freedom of an agent in relation to a range of unspecified actions, and of the view that it is a property that can be attributed to the agent and be measured. However, as will be explained in the next chapter, I will be concentrating exclusively on measuring degrees of freedom in conditions in a comparative way (comparing the degrees of freedom between a particular condition and its alternatives), and will not pursue the aim of measuring the degree of freedom in singular conditions that are considered isolated from possible alternatives. I will thus refrain from measuring freedom as a fraction between unrestricted and all conceivable actions of an agent. Instead, I will employ the method of comparing sets opportunities in comparable alternative conditions.

2.2 Defining the Simplest Elements

In order to arrive at a definition of freedom that is not porous and ambiguous and thus cannot generate significant disagreement and debate and be easily manipulated, it is necessary to find the most simple and basic elements that substantiate and underlie all, or at least most of the traditional understandings of what freedom is. The new definition can then be built using those simple elements regarding which there can be little ambiguity and debate. I shall first formulate a definition of simplest specific empirical freedom, ensuring that all elements thereof are clearly defined and are unambiguous. I shall then proceed to the next stage, where I shall use that definition of specific freedom and the terms constituting it as the building blocks in defining overall freedom of an agent. Lastly, having firmly established that, I shall conclude by employing the definition of overall freedom of an individual agent in building a definition of overall freedom pertaining to more than one agent (group freedom), which will correspond to the concept of political freedom. Hence, I shall conflate different types of freedom such as empirical, political, social, etc., and instead use the same simple fundamental elements of freedom that constitute the definition of simplest empirical specific freedom of an individual agent in order to define different and more complex levels of freedom. These different levels somewhat correspond to the vaguer distinctions between empirical,
political, social and other freedoms, but instead of being different types that are expected to rest of different principles and terms, these are merely different levels of one and the same type of freedom that is defined through and rests on the same elements. Thus, under this definition, discussions of empirical, political and other types of freedom are all inseparable.

I think there can be little disagreement that when one says that an agent is free to do or to have X, it means that the agent *can* do or have X. Conversely, when an agent is not free to do or to have X, he or she *cannot* do or have X. If “to be free” means “to be able to”, and, conversely “not to be free” means “not to be able to”, freedom as a noun corresponds to the concept of ability. I think it can be also logically asserted that “to be free to do or to have X”, and, consequently, “to be able to do or to have X” is equivalent to saying “to be unconstrained to do or to have X”. There is a set of popular views, according to which “ability” and “being unconstrained” with respect to a certain action or object are not equivalent, as one can be unconstrained to do X, whilst still unable to do that, and conversely, be constrained to do something, whilst still be able to do it. I will first discuss the terms and definitions of ability and inability, and then I shall address the question regarding the distinction between ability and lack of constraint (and conversely between inability and constraint).

Both Carter and Hillel Steiner dedicate extensive discussions to the questions regarding the difficulty of identifying and counting particular actions that an agent is free to do, including Berlin’s claim that possible actions are not like apples and cannot be counted, the problem of variety of descriptions that a single action may have, the problem of infinite divisibility, probability and possibility of actions, causal chains, etc.\(^{31}\), \(^{32}\) I think this discussion, however, can be to a large extent avoided.

I believe, that in the statement “R is free (able) to do X” it is more accurate to express with X not the action that the agent is free to make, but the object of the action, or the result, which the agent, assuming that he or she is a rational individual with free will, aims to achieve or to come to possess by the means of performing the action. Hence, instead of “R is free to do X” it is more accurate to say “R is free to bring it about that X”. It is not the action itself, but its consequence that transforms an agent’s condition from one state to another. For instance, in R is free to do X, instead of defining variable X as leaving the room or to leave the room, it is more accurate to define X as finding him or herself outside of the room, or changing the condition from being in the room to that of being outside the room. Thus, instead of saying R is free to leave the room, it is more accurate to say R is free to find him or herself outside the room, as that is the intended consequence implied by the expression of leaving the room. In most of the cases it is not the action of leaving the room (making three steps to the door, opening it, and making three steps outside it) that we are referring to when we are saying that R is free to leave the room, but the fact that the agent will be able to find him or herself outside of it. The action alone may not necessarily deliver intended results, for it can be a perfectly true statement that R is free to leave the room, despite when stepping outside the door R is immediately beaten and pushed back into the room. In this case R is technically free or able to perform the action of leaving the room notwithstanding its consequences. This illustrates how the concept of action can be inadequate in defining variable X in the definition of freedom. The concept of the object of action, i.e. the goal which the agent intends to achieve, however, will perfectly accommodate for such scenarios.

Imagine, a different scenario, where in R is free to do X, by X we refer to ordering soup at a restaurant. Even if there is no soup available at the restaurant, the statement “R is free to order soup” is still true: he or she is still able to order it as many times as he or she wants, despite he or she will never be served it. As in most cases, when we say that one is free or can order soup, it is not the action of ordering the soup that we are referring to, but the acquisition of soup, or the transformation of the agent’s soupless condition into a soupful one. In many cases, when we talk about freedom of the agent in
relation to an object of action, we are not even concerned about which type of action brings about the intended consequence. For example, in saying R is free to go to the museum, we are not concerned about the action at all, that is whether R is walking to the museum, driving there, taking a bus or is being teleported. It is the intended consequence of the action, namely being inside the museum that the statement concerns. In some cases, however, the action and the result can coincide if we are strictly referring to the action that the person is free to or can do, such as in R is free to read for pleasure, to relax or to enjoy music. In cases like these we are referring specifically to the action, as it is the action itself, not necessarily the result that is intended. Even then, however, one may still say that it is a particular mental or physical state that the agent intends as a result of the action, so the pleasure one receives from reading can thus be defined as the object or consequence of the action of reading and be distinct from it.

Therefore, instead of using the variable X to refer to an action, it is more logical to use it to mean the object of action, the result that the agent intends to attain. The action then is thus not X, but the process of attainment of X, the realisation or execution of the agent’s ability to attain X. Hence, the relation “R is free to attain X” so far has three elements: the agent, the agent’s ability, which is his or her property of being able to achieve X and x, which is the object of action, namely that, which the agent aims to attain. If we examine the second element, ability, we will see that this property is not only the property of the agent R to achieve X, but is also necessarily the property of X to be available to R. Since, by definition, it is impossible to be able to attain an object, which is not available, and conversely the object is not available if cannot be attained, R’s ability to attain X is the same property of R in relation to X, as the availability of X to R is the property of X in relation to R. In other words, the availability of object X to agent R and the ability of agent R to attain object X are mutually dependent and logically and necessarily inseparable properties.
To reflect the fact that X contains the property of itself being available to the agent it is most appropriate to use the terms “opportunity” or “option” when referring to the object of action when it is available to the agent. Since, as mentioned above, the property of availability that is in X is also necessarily the property of ability in the agent R, the statement “R has opportunity X” is equivalent to the statement “R is free to attain X” or “R is free to undertake opportunity X”. The very definition of opportunity necessarily implies that it is available and undertakeable. This also reinforces the idea that freedom is not merely a relation between the agent and the object of action, as Oppenheim believed, but is a property or attribute of the agent, as Carter argued (and under my definition it is also, as availability, necessarily the property of the object of action, which make it an opportunity).

It is important to emphasise, that “R is able to undertake X” or its equivalents “R is free to do X” or “R is able to do X”, all imply freedom of will of the agent. The “ability” or “freedom to” implies that the action of undertaking an opportunity (thus of attaining object X) is intended by the agent, meaning it can take place only as a result of a willful and deliberate decision of the agent to carry it out. This implies two conclusions. The first conclusion is that we cannot say that one is free to do X, if the action is not voluntary. Hence, under this definition it is incorrect to say that the fact that a ruler is able to bend or a pen is able to fall to the floor as a result of gravity means that the ruler is free to bend or the pen is free to fall, and that bending and falling are opportunities that the ruler and the pen can undertake. Undertaking an opportunity, which is performing an action to attain X, is a voluntary act, which cannot be executed by non-conscious beings that are wanting free will. Moreover, even when speaking of an agent with free will, it is improper to say that he or she has freedom to achieve things or undertake opportunities unintentionally. Hence, under this definition it is also incorrect to say that R is free to fall off the balcony or get into a traffic accident, to mean that R can accidentally fall off a balcony or accidentally get into a traffic accident. The second conclusion is that opportunities are always optional by definition, meaning that undertaking an opportunity is always a voluntary action and that if undertaking an
opportunity is imposed upon the agent (the agent is forced to achieve the object of the action against his or her will), then this action and its object cease to be opportunities and the agent’s undertaking of the action and his or her attainment of its object under force do not constitute freedom. Hence, according to this definition, it would be wrong to say that if R is imprisoned in a cell against his or her will, R is free to be in the cell, or has the opportunity to remain in the cell. The presence of an opportunity is merely its presence as an option, as it does not force the agent to undertake it, but only presents itself as being available to him or her if he or she will wish at some point to undertake it. This means that it can be undertaken only if the agent chooses to do so, and hence the opportunity is by no means imposed upon the agent unless he or she chooses to undertake it.

Thus, having explained all the individual variables, we can formulate our definition of freedom in the following way:

*Agent R is free to attain X, iff R, being an agent with free will, is in a condition W, where he or she is able to voluntarily undertake available opportunity Y through execution of action Z, as a result which, R will have achieved object X that is the intended object of said action.*

This definition takes into account the distinction between the action, the object of action and the opportunity. The object of action (X), is that, which the agent aims to attain as a result of executing a particular action aimed at said object. For instance, soup is the object of the action of ordering soup. The action (Z), consequently, is the voluntary execution by the agent of his or her decision arrived to through an exercise of free will, the aim whereof is attainment of the object of action (X). In some cases the action and the object of action may coincide, if the agent seeks as the object of action the action itself, namely the process of executing it, such as reading a novel for pleasure. Opportunity (Y) is the availability of the object of the action (X) (or of the action itself, in case it is the action itself that the agent seeks), which, as explained earlier, by definition
implies also the ability of the agent to attain that object (X). Hence, opportunity is not the action, but the availability of the object of action and the ability of the agent to attain it. If agent R is locked in a room, and he or she chooses to execute the action of leaving the room for the purpose of attaining the object of said action being finding him or herself outside the room, but the room is locked, this means that neither the action nor the object of action are available. This means that in this situation, although leaving the room is an action and finding oneself outside of the room is the object of said action, neither of these are opportunities, because they (the action and the object of action) are not available and, correspondingly, the agent is not able to perform and attain them respectively. It is thus important to understand that opportunity, action and the object of action are three distinct entities, despite their content may sometimes coincide.

Condition (W) simply means the particular state the agent is found in in relation to the presence of the opportunity or opportunities in question. Thus, if speaking of availability of one specific opportunity (Y), the agent can either be in a condition where this opportunity is present, or in the condition where it is not. By separating the concepts of action, object of action and opportunity, we are precluding the long debate and need for analysis regarding the nature and identifiability of actions.

Hence, we identified the simplest and smallest particles of freedom, regarding which, I believe there can be very little controversy so far. Having established and clearly identified a definition for each of these particles and having explained what they imply, we can now put back together a more compact version of the definition of freedom that will now imply and include in itself all of the above mentioned distinctions:

Agent R is free to attain X in a given condition, iff the opportunity of attaining X is present to the agent in this condition.

Therefore, specific freedom is the presence of a specific opportunity to an agent (by its being an opportunity, it is already implied that it is available and that the agent has the ability to undertake it). This definition retains the notion of freedom as both a property
(attribute) of the agent (as the ability to undertake opportunities is a property of the agent), and is also a relation between the agent and the opportunity (or to be more specific, between the agent, the action, the object of the action and the opportunity, which is availability of the latter two to the agent).

2.3 Removal of the element of constraint and conflation of different types of freedoms

The striking feature of this definition is that it does not include the third element of constraint, which is the essential element of the triadic relation of the more traditional definitions of freedom. A good example is that of Gerald MacCallum's, who, although he called for the conflation of the concepts of positive and negative liberties, still held the element of constraint as an integral part of the definition of freedom. His formula was “x is (is not) free from y to do (not do, become, not become) z,” [where] x ranges over agents, y ranges over such “preventing conditions” as constraints, restrictions, interferences and barriers, and x ranges over actions or conditions of character or circumstance,”33 which is also similar to the formula defended by Oppenheim and many others.

The question of constraint as a separate third element rests on the question of whether ability and lack of constraint and, consequently, inability and constraint are equivalent or not. If one believes that they are equivalent, then there is no need for the third element of constraint, as it will be superfluous: it will add that, which is already implied in the property of ability of the agent. However, some believe that these are not equivalent, and that to be free to do something means not to be able to do it, but to be unconstrained to do it. For instance, given that nobody restrains me either legally, physically or by threat of punishment from levitating in a room, according to this theory I would be free to levitate, despite I am not able to. Hence, according to this view, ability

does not equal freedom, as freedom means only being free from constraints or interference to do something, it does not mean being able to do something. There is also a theory, most famously defended by Philip Pettit, according to which potential interference over an agent, which he terms domination, constitutes unfreedom. Under his theory, ability does not equal freedom either, as even if the agent is able to perform an action and attain its object, he or she is still not free, because he or she is dominated over and is under a threat of potential interference (meaning that the agent’s ability to do that action is not guaranteed or secured from interference by others).

I believe, however, that ability and inability should be defined to be equivalent to absence of constraint and constraint respectively, as it will eliminate a great range of ambiguity and debate arising from this distinction and will render the definition of freedom much more precise and uncontroversial. If we identify freedom of agent R to attain X with his or her ability to attain X, and consequently of availability of X to agent R, then to add the element of constraint will result in a tautology, given that by constraint we simply mean inability, regardless of which factors and types of factors it is caused by. Any constraint in relation to agent R to attain X makes R unable to attain X and consequently makes X unavailable to R. Hence, to say that agent R experiences no constraint in relation to attaining X is identical to saying he or she is able to attain X and that X is available to him or her. Conversely, to say that there is constraint on R in relation to his or her attaining X means that R is not able to attain X and that X is not available to R. Hence, the introduction of the third element of constraint serves no purpose as its functions are already implied in the formula, specifically by the ability or inability of the agent to attain X and by the availability or unavailability of X to R. Therefore, adding a third element that will add to the formula that, which is already there is redundant. The question of the sources of constraints is obviously extremely important, especially when it comes to political or social freedoms, however I believe that it is part of a discussion that is logically separate from the question of whether R is simply free or unfree to attain X.
Theories that do have the element of constraint incorporated within the definition of freedom and where it is distinguished from inability give rise to a wide gray area regarding the question of the sources of constraint. Namely, the question of which sources of constraint should be considered as rendering an inability a constraint, and thus causing the agent experiencing it to be *unfree*, and which sources of constraint make it merely an inability, not causing the agent to be unfree but merely *incapable*. A lot of literature on freedom thus concerns itself with debating over the question of what should qualify as unfreedom, whether it is only intentional interference caused by individual agents, economic inability, legal restraint, political restraint, mere personal inability, poverty, potential interference (domination), etc. Berlin, for instance, states that under most of the traditional theories of negative liberty, unfreedom is only constituted by coercion, which is “deliberate interference of other human beings” with the agent’s actions.\(^{34}\) Then, however, there is the question of which constraints should qualify as being caused deliberately and as being caused by human beings as opposed to, for instance, being caused by chance or by unforeseen, or foreseen but unintended results of some actions or of some system or operation.

“You lack political liberty or freedom only if you are prevented from attaining a goal by human beings. Mere incapacity to attain a goal is not lack of political freedom. This is brought out by the use of such modern expressions as ‘economic freedom’ and its counterpart, ‘economic slavery’. It is argued, very plausibly, that if a man is too poor to afford something on which there is no legal ban--a loaf of bread, a journey round the world, recourse to the law courts--he is as little free to have it as he would be if it were forbidden him by law. If my poverty were, a kind of disease, which prevented me from buying bread, or paying for the journey round the world or getting my case heard, as lameness prevents me from running, this inability would not naturally be described as a lack of freedom, least of all political freedom. It is only because I believe that my inability to get a given thing is due to the fact that other human beings have made arrangements whereby I am, whereas others are not, prevented from having enough money with which to pay for it, that I think myself a victim of coercion or slavery. In other words, this use of the term depends on a particular social and economic theory about the causes of my poverty or weakness.”\(^{35}\)


\(^{35}\) Ibid.
One can see that this discussion of sources of constraints also already implies the distinction between empirical, political and economic freedoms. However, there are not even an agreement and precise undisputed definitions of these distinctions between these types of freedom. Thus, by the removal of the element of restraint altogether through equating it with any and all kinds of inability, this whole range of controversies and debates is precluded from taking place altogether.

The way Carter deals with this problem is by de-emphasising the element of constraint without entirely removing it. When he moves from Oppenheim’s definition of specific freedom, which is “R is, with respect to agent P, free to do x”, to the simpler one of “R is free to do X”, he assigns the universal quantifier over P by making agent P non-specific, which means that R becomes free to do X in relation to all constrains resulting from all agents P: “First, by quantifying over ‘P’ in the triadic freedom relation, we arrive at the idea of a specific freedom of a specific agent—that is, the freedom of R to do x. It is perfectly comprehensible to attribute to an agent the freedom or unfreedom to do x without specifying who leaves the agent free to do x or renders her unfree to do x. […] Similarly, in the definition of ‘freedom to do x’, we interpret ‘P’ as meaning ‘every other agent’. (Here, we use the universal quantifier.) In this way, we can say simply that ‘R is free to do x’ or that ‘R is unfree to do x’: she is free to do it if every other agent refrains from preventing her from doing it, and she is unfree to do it if some other agent prevents her from doing it.”36 Thus, he de-emphasises the element of constraint by making it non-specific and hence assigning it to all agents P who can exercise constraints in relation to the ability of agent R to do X. Since it has become as vast as to include all and every other agent P, Carter can proceed without explicitly mentioning it when talking about R’s freedom in relation to X.

36 Carter, A Measure of Freedom, p. 27.
Later in the book Carter speaks of separating the questions of the sources of constraint and of variables of constraint (which he argues is only physical impossibility as opposed to threat and difficulty)\(^{37}\), thus de-facto conflating the concepts of physical impossibility and constraint when discussing measurements of overall freedom.

The question of the nature of the sources of constraints on freedom is, then, a question about the definition of 'a specific freedom' that affects the definition of overall freedom unproblematically. Rather than posing additional problems for aggregation, by increasing the set of variables to be commensurated, the function of a constraint-type defined by reference to the source of obstacles is simply that of specifying which instances of the already existing set of variables are to be taken into account. This means that we should be careful to distinguish between the following two questions: (1) that of whether one should side with Sen or Oppenheim or Miller or Hayek on the source an obstacle must have in order to count as a constraint on freedom, and (2) that of whether and how far overall freedom can be measured. The answers to these two questions are logically independent of one another. The only reason one could have for seeing them as interdependent would be that intentionality or causal or moral responsibility are themselves to be seen as matters of degree, and that the degree to which I am, say, morally responsible for your being unable to do x determines the degree to which you are free to do x. Such a point has never, to my knowledge, been made by the authors referred to above. On the contrary, it is normally assumed that as far as unfreedom is concerned, an obstacle should be seen as either intentionally or unintentionally imposed, and an agent as either bearing or not bearing causal or moral responsibility for its imposition.\(^{38}\)

It is indeed clear that the question of the sources of the constraints pertains to instances of specific freedom, and thus can be separated from the question of overall freedom, however I think it is more logical to remove the element of constraint altogether by equating it with inability of any kind stemming from any source, as explained earlier. If we define, as we already did, ability and inability as being the property of the agent (and correspondingly availability and unavailability as the property of the object of action), introducing it as a separate third entity “constraint” is entirely superfluous.


\(^{38}\) Ibid., p. 223.
One can object, however, by saying that a theory that does not include a concept of interference or constraint as a separate integral element, when applied to the political realm, neglects the most important aspect that a theory of freedom should have, namely an argument for protection of the freedom of individuals against interference by the state or by other agents. First, this objection implies that a theory of political freedom should be a different one from that of empirical freedom: one might find it acceptable for a definition of empirical freedom not to have the element of constraint, but not for a definition of political freedom. Since, however, I am conflating the distinction between empirical and political freedoms, as political freedom is merely a more complex expression of empirical freedom with multiple agents and multiple actions and their consequences, and since the element of constraint is entirely superfluous in the definition of empirical freedom, then there is no logical reason for why it should be introduced in the definition of political freedom, as the definition of empirical freedom upon which that of political freedom entirely rests, can perfectly do without it. As I explained earlier, instead of defending different types of freedom, such as empirical, political, social, economic, etc., I am defending a theory where these are merely different levels of complexity of configurations of the simplest particles and elements of freedom that are identical on any level in any combination, however complex and however many agents, actions and objects they involve. Thus, if ability or inability to move one’s finger can be equated with absence of constraint and presence of constraint respectively on the level of empirical freedom, there is no reason to separate these two on the more complex political level of the definition of freedom. Any time one says that “P interferes with R’s freedom to attain X” that means that “P prevents R from attaining X”, which in turn means that “R is unable to attain X, because of P’s interference”. In so far as identifying whether R is free to attain X or not, the ability or inability of R to do that is already implied in the properties of R and X in a given condition, and not in the source of constraint P. The source of constraint, namely P, is an entirely separate point that does not affect the determination of the fact whether R can attain X or not.
Second, the fact that a theory of freedom that does not include a separate element of constraint or interference does not mean that therefore this theory does not allow for a strong argument for protection of the liberties of individuals from interference by other agents, such as the government or other people. A theory like this will still allow for an argument for protection of individual liberties from interference that can be as strong and as extensive as that included in most traditional theories of liberty as non-interference or as non-domination. The only difference is that it cannot be included in the discussion of the definition of freedom and unfreedom per se, but will have to constitute a separate discussion on the sources of freedom and unfreedom.

Thus, in addition to conflating empirical, social and political freedoms, the removal of the element of constraint also conflates the distinction between the concepts of positive and negative liberties. Any instance of either positive or negative liberty can be expressed through a dyadic formula of freedom that does not include the element of constraint. The fact that \( R \) is free to do \( X \), because he is not interfered by any other agent to do \( X \), which is in turn, because, for example, his or her liberty is protected by laws, can still simply be expressed as the fact that \( R \) is free to do \( X \). The reasons why he or she has this freedom and how it is protected are entirely separate points and are not logically connected to the mere question of whether \( R \) is free to do \( X \) or not. An instance of positive freedom, the fact that \( R \) is free to do \( X \), because \( X \) is available to \( R \), because, for example, it was inherited from his or her uncle, can also be perfectly clearly expressed through the dyadic formula, without discussing the source of \( X \) and why and how it became available to the agent. In both cases, the reasons for \( R \)'s ability or inability to do \( X \) do not play any role whatsoever in identifying whether \( R \) is free to do \( X \) or not. Since the difference in the types of these reasons, that is in the sources of ability and inability of the agent defined the distinction between the concepts of negative and positive liberty (absence and presence of interference are the sources of ability and inability respectively in the theory negative liberty, and presence and absence of opportunities are the sources of ability and inability respectively in the theory of positive liberty), once we remove the very question of the sources of ability and inability from the
definition, the distinction between negative and positive liberty then immediately disappears.

2.4 Proceeding from the level of specific freedom to that of overall and group freedoms

That, which we have identified so far was the definition of specific freedom, that is of a specific agent R in relation to a specific opportunity X. The next step is to use this to build a definition of overall freedom which would concern sets of multiple opportunities an agent may possess, and later, concerning multiple agents. As Carter suggests, an instance of overall freedom is the combination of all specific freedoms that an agent has in a particular condition. His solution, which is based on that of Hillel Steiner, is in expressing overall freedom as a fraction, where the number of available opportunities of an agent in a condition is divided by the number of all conceivable opportunities that the agent may possibly have.

I, however, would like to pursue a slightly different approach. When we speak of the condition of an agent with respect to a specific freedom to attain X, we speak of whether the condition contains opportunity X or not. Hence, there can only be two alternatives, as any comparison between alternative conditions would be limited only to the difference of whether the condition in question has opportunity X or does not have it. We can also speak of the condition of an agent with respect to overall freedom, namely regarding all available opportunities in a given condition, not just one single opportunity X. However, upon closer analysis, it becomes evident that in any given condition the agent has an infinite number of opportunities available, rendering the approach of measuring the numbers of all available opportunities in different conditions meaningless. For instance, in most conditions the agent has an infinite number of opportunities with respect to moving his or her body. There is an infinite number of points in space, even within a locked room, where a person can position his or her finger. Moreover, there is always an infinite number of different thoughts that an agent is
free to think (for instance thinking of numbers from zero to infinity). Since the number of overall opportunities in any condition is thus infinite, then it will be impossible and meaningless to compare numbers of opportunities in different alternative conditions, for in all of them the number will be equal, that is infinite.

Carter’s solution to a similar problem involves a very intricate and extensive analysis of spatio-temporal physical properties of actions. However, given that I have separated the definitions of actions, objects and opportunities (where it is not actions but objects of actions that the agent has freedom in relation to, and which are not necessarily always physical, such as mental states), and given that I am not pursuing the definition of overall freedom as a fraction between all available actions and all conceivably possible actions (available and unavailable), the unavailable actions not being part of the definition of freedom I am defending at all, his solution will not be of much relevance.

I believe this problem can be much more easily solved by grouping these infinite opportunities into blocks of ranges of opportunities, each of which can then be expressed as one singular finite opportunity. For instance, if we are to analyse the set of opportunities of a prisoner in a cell, instead of counting each point where he or she can point her finger to and each thought he or she can think, we can identify these infinite options as only two opportunities, one being ability to move within the cell, and the other being ability to think infinite thoughts. Any condition can be thus divided into a limited number of opportunities available to the agent, where particular types of infinite opportunities can be unified into singular finite opportunities, each of which will thus include in itself all those infinite sub-opportunities. This will be discussed in more detail in the next chapter, when we will develop the method for measuring and comparing opportunity sets.

39 Carter, A Measure of Freedom, Chapter 7.
If the analysis requires, each of the opportunities can be broken down into its sub-opportunities. For example, I can say that I am free to read all books from the local library, which is one single finite opportunity. However, if necessary, I can specify which exact books are available at the library as sub-opportunities. If further sub-division is necessary, I can specify all the sentences I can read that are found within all those books as separate distinct opportunities. Further, if this is necessary for the purpose of a particular analysis, I can specify that I can read each of these sentences whilst sitting in different parts of the city or wearing different clothes or in different voices, each of these being a separate individual sub-opportunity. However, when no such subdivision is required or is of interest, one can define all of these infinite opportunities as simply one single opportunity which is the ability to read books from the local library.

The range of opportunities can be also qualified, if necessary, only to a specific set. If I want to identify the freedoms I have specifically with the reference to the books I can borrow from the library, as the number of opportunities that I want to analyse, I only need include the number of books available to me from the library, and I do not need to include other opportunities that are not relevant to this particular analysis, such as the types of bread I can buy from the grocery store that is next to the library. This I shall call qualified freedom, being a level in between specific freedom and overall freedom, where it is neither just one specific opportunity nor all available opportunities that are being considered, but a specific range that is being isolated if it is of interest for the purpose of a particular analysis.

All opportunities can be classified into three different types, which I shall call productive, neutral and reductive. All of these can in turn be of various degrees of purity. Productive opportunities, once undertaken by the agent, increase the number of opportunities available to him or her. Undertaking such an opportunity, therefore, transforms the agent's condition into a different one that has a greater set of opportunities. Learning some skill or earning money, for instance, are productive opportunities. By undertaking these, one enters a new condition where a whole range of new additional opportunities
previously unavailable become available, since one can use the new skill or the earned money to undertake a variety of new opportunities one was not able to undertake before. A pure productive opportunity is such that, when undertaken, brings the agent into a condition where the agent still retains all of the opportunities that he or she had before undertaking it, and attains new ones in addition to that. For instance, by learning a new language the agent can still do everything he or she was able to do before he or she learnt it, but in addition to that he or she obtains a vast range of new opportunities such as reading or communicating in that new language with all the consequent opportunities stemming from these. One could argue that the time and money spent on studying a new language amounts to loss of opportunities, however that holds only if we assume that the agent having spent it on this opportunity will never be able to recover the spent resources. However, this is not the case if we assume that the person is able to earn the same amount of money after the fact and that he or she will be able to dedicate the same amount of time spent on it for some other opportunity in the future. In fact, in most circumstances, by learning a new language the person can find a better job or position and earn more money and thus save more time. Hence, as a result of undertaking this opportunity, the person can still do everything he or she could do before that, but can also do more in addition.

A less pure productive opportunity is such, where the agent attains a range of new opportunities, whilst losing a certain number of previously held opportunities, although still increasing the net total of opportunities. For instance, if the agent sells his or her ancestors’ old family portrait for a lot of money but with no right to buy it back, whilst on the one hand the agent attains a great range of new opportunities through the money received as the result of the sale, at the same time the agent loses the previously available opportunity of the possession of the portrait, which cannot be recovered.

A reductive opportunity is an opportunity that, once undertaken, places the agent in a condition that has a smaller set of opportunities than the set previously available. Injuring oneself to the extent that one becomes incapable of performing tasks that the
agent was able to perform before, for instance, places the agent into a condition in which he or she has fewer opportunities he or she can undertake compared to the previous condition. The most pure reductive opportunity is suicide, for as a result of it, the agent loses all heretofore available opportunities without gaining any. A less pure reductive opportunity can be something like injuring and to some extent incapacitating oneself permanently in exchange for some service or reward that otherwise would not have been available to the agent. The agent loses a limb, for instance, which is a reductive opportunity, but at the same time in return for that he or she obtains the long lost ancestors' family portrait, which would not have been available prior to the undertaking of this reductive opportunity.

A neutral opportunity is an opportunity, which, once undertaken, does not change the set of opportunities available to the agent, and does not transform his or her condition into a different one. The opportunity to sit in a chair for a minute, for example, does not alter (in most circumstances) the set of available opportunities within the agent's condition. It neither creates any new opportunities nor reduces the set of opportunities already available. Hence, a neutral opportunity, when undertaken does not transform the condition of the agent from one to another.

This approach of classifying opportunities will play an important role in the following chapters on value of freedom and its measurement. It is somewhat similar to Steiner's distinction between significant, insignificant and anti-significant actions, however he does not distinguish these based on their ability to generate or reduce opportunities but prefers to assign them different numerical values, presumably to be based on their specific content. As examples of significant and anti-significant actions he uses saving and taking another person's life respectively. However, this approach is too vague and somewhat arbitrary, and most importantly, it contradicts Carter’s concept of empirical

measurement of freedom, which, unlike the opposite value-based approach, cannot take into account any specific values or contents of actions.

My approach of classifying different types of opportunities based on their ability to alter the agent’s condition by affecting the set of opportunities contained therein allows one to rank opportunities in terms of their consequences and assign them abstract non-specific values, whilst not assigning them specific values based on their content, allowing me to stay away from the value-based approach. Also, importantly, in particular because this approach was made possible by making the distinction between actions, objects of action and opportunities, the discussion of what Carter calls *compossibility* of actions (ability of actions to be possible in combination, making them compatible and mutually non-exclusive), would fall under the jurisdiction of the discussion of different classes of opportunities. Any pure productive or pure neutral opportunity A is compossible with any other opportunity, since as a result of undertaking it, the agent still has access to all previously possessed opportunities, which he can still undertake. Undertaking A, thus does not exclude or make impossible any previously held opportunities. Impure or reductive opportunities, however, can be non-compossible with some other previously held opportunities, since by undertaking them, one loses one or more previously held opportunities. Hence, that which Carter calls *act combinations* is analogous to what I call conditions, which are sets of opportunities available to the agent at a given moment. Just like each act in an act combination may have the power to affect the possibility of performance of other acts in the combination when it is carried out, so is undertaking each of the opportunities may affect the presence of other opportunities in a given condition, thereby transforming a given condition into a different one. This approach will serve as the foundation for the discussion of ranking opportunity sets that will be dealt with in the next chapter.

Lastly, one can classify the concept of agent into two types, the principal agent and the dependent agents. The principal agent is R, the agent whose condition in terms of possession of a particular set of opportunities is considered. The dependent agents are
those agents, whose own sets of opportunities, i.e. whose freedom can be affected or altered as a result of the principal agent’s undertaking of any particular opportunity. For instance, if agent R undertakes the opportunity of stealing money from agent Q, this is a productive opportunity for the principal agent, R, as thereby he or she attains a greater range of opportunities through obtaining the money, whilst it reduces the number of opportunities for the dependent agent Q, whose money is being stolen, as his or her set of opportunities is thus reduced. Hence, when analysing an agent’s condition and the opportunities contained therein, one could either restrict the relationship only to the principle agent, to the principle agent and some dependent agents, or the principal agent and all dependent agents (all agents, whose condition and thus whose freedom will be affected by the principal agent’s undertaking of a particular opportunity).

Consideration of opportunities in relation to conditions of the principal and all dependent agents uses the definition of specific empirical freedom of a single individual for building the formula of qualified and overall freedoms with respect to groups of individuals. This level of freedom is analogous to that which is often called political or social freedom. Elaborating on this subject is not my goal in this work, as it is a very extensive subject of its own, and it only suffices to explain in my case, how this level of freedom arises from the simpler levels of freedom discussed above, and that, as Carter claims, “[t]he freedom of a group of individuals is best understood as the sum of the degrees of freedom of its individual members.”

3 Chapter III: Value, Freedom and their Measurement

In Chapter II we arrived at an abstract and formal definition of freedom that can be used to express various instances and what is generally believed to be various types of freedom. In Chapter III I will address the following four remaining tasks in order to achieve the objectives outlined in the beginning of the work: first, I will define the type of value that freedom can be proven to have, second I will develop a method of measuring

\[\text{Carter, A Measure of Freedom, p. 246.}\]
this type of value (not necessarily in relation to freedom but in relation to anything that may possess this type of value), third, I will develop a method of measuring freedom and fourth I will prove that freedom has value and that the degree of freedom that a condition possesses corresponds to the degree of the said type of value that this condition possesses.

3.1 Outlining the key objectives and identifying preliminary definitions

Once we have established a formal definition of freedom in the previous chapter, we now need to determine whether under this definition freedom has value. Unless we can demonstrate that freedom has value, however unambiguous and firm the formal definition of freedom is, the concept will be of little importance. Hence, in this chapter, I will try to demonstrate that freedom does have value. The statement “freedom has value” has three terms, “freedom”, which we have already defined, “having”, and “value”, the latter two of which we will need to define as well. I will then outline two separate and distinct schemes, one for measuring and identifying degrees of value, and the other for measuring and identifying degrees of freedom. Only then, at the end of the chapter I will join the two concepts together and demonstrates that freedom has value.

Carter begins with outlining distinctions between different types of value, such as specific, non-specific, instrumental, intrinsic, unconditional, etc. When presenting these definitions of types of value, he often resorts to the use of the term “good” or “value”. For instance, the very first definition he presents, that of non-specific value, is the following: “A phenomenon, x, has non-specific value (is valuable as such) iff the value of x cannot be described wholly in terms of a good brought about or contributed to by a specific instance of x or set of specific instances of x”.42 Amongst several other definitions he presents that of instrumental and intrinsic ones: “A phenomenon, x, has

42 Carter, A Measure of Freedom, p. 34.
specific instrumental value iff a certain specific instance (or set of instances) of $x$ is a means to some other valuable phenomenon, $y$.”\textsuperscript{43} “A phenomenon, $x$, has intrinsic value iff $x$ is an end in itself (that is, if $x$ has a positive overall value which is not reducible to the value of any other phenomenon).”\textsuperscript{44} Most of these descriptions employ the term “value” or “valuable” in the definitions of particular types of value and thus appear to be to a particular extent circular. Carter seems to skip some preliminary formal steps that would first outline a definition of value per se or generally, not of a particular type of value. I believe, however, that it is essential at least very briefly to define what value is fundamentally, just like we already defined what freedom is in the previous chapter, and only then proceed to making distinctions between different types of value and how they are related to freedom.

We have earlier identified that freedom is not merely a relation, but also, as Carter argues, a property or attribute of the agent (or multiple agents). I have argued in the previous chapter that freedom is also the property of the objects of the agent’s actions, by possessing which property the objects become available to the agent and hence become opportunities. This allows us to say that freedom is also a property or attribute of the condition (opportunity set).

We can also assert that given that we are referring to something as having or not having value, value is a property of that, which has it. When we are referring to a property (such as freedom) as having value, we mean that when something has that property, it also automatically, merely in virtue of possessing that property, also possessed value. We can think of it as a property of a property or as a co-property: a property that necessarily and always accompanies another property. For instance, lightness (of tone) is a property of whiteness: any object that possesses the property of whiteness (i.e. is white), automatically acquires and possesses the property of lightness (i.e. is light). Thus, if we want to show that freedom has value, we need to show that anything that

\textsuperscript{43} Carter, \textit{A Measure of Freedom}, p. 44.
\textsuperscript{44} Ibid. p. 41.
possesses the property of freedom also possesses the property of value, just like anything that possesses whiteness also possess lightness in virtue of being white.

Hence, it is not logical to refer to concepts as values themselves, for instance to say that freedom is a value or justice is a value. Instead, given that value is a property, like colour, weight, temperature, etc., and cannot subsist by itself without a substance to which it pertains, it is more appropriate to use the language of saying that freedom has value or justice has value, which is also equivalent to saying that they are valuable. Analogously, it is illogical to say that apples are greenness or apples are weight, and it is more appropriate to say that apples have greenness (are green) and have weight (are heavy). Under the above definition of value as a property, saying that freedom is a value is as illogical as saying that apples are greenness.

Now we need to define, at least in general terms, what exactly this property of value is and what it gives to that of which it is a property, and therefore how something that has value differs from that exact same thing that does not have value. Simply saying that value makes something good is not meaningful in any way, as the question of what it is to be good will require an answer then. Let us then, for purposes of clarity and convenience, equate the terms “value” or “valuable” with “good” and use them interchangeably. Recall, that our initial task was to arrive at a concepts of freedom and of its value that are non-porous and cannot be easily misinterpreted or manipulated. Hence the definition of value we will identify also needs to be simple, non-porous and as indisputable as possible, so that anyone could easily accept it and would have difficulties trying to refute or misinterpret it.

We can say with certainty that something is valuable necessarily in relation to some agent, one or many, to whom it has value. If we imagine a universe, in which there does not exist nor every will any single agent, i.e. a conscious being with perceptions and desires, then we cannot say that any object in that universe has value, as there is no agent to whom it is or can be valuable. Imagine any object or relation of objects that we
find valuable in our world, and place it in a universe that does not contain a single agent, then its value will automatically disappear. One could try to say, for instance, that certain chemical processes that accelerate the growth of certain crystals are “valuable” to these crystals, however I do not think that would be an appropriate use of the term of value, at least not for our purposes. In addition, given that we are considering freedom, which is necessarily a property of agents, who are conscious beings with free will, value should be in relation to agents as well. In the previous chapter we have already determined that the term freedom should not be used to describe abilities or potencies of inanimate objects.

We can thus say that something X has value for agent R, if it is beneficial to R. However, this requires to define what it is for something to be “beneficial” for someone as we do not want to use circular definitions. Given that there can be a great array of various and contradictory opinions of whether some specific object is beneficial to some specific agent, in order to avoid this controversy, one way to say that something is beneficial to someone is to say that it satisfies his or her preferences. We cannot deny the fact that agents have preferences, and that they find those things that satisfy their preferences valuable. Since I am defining benefit as preference-satisfaction, then anything that the agent believes is worth attaining is under this definition valuable to him or her. The fact that the agent takes the effort and desires to attain something serves as proof that the agent believes that it will satisfy some preference of his or her. For instance, if it is one’s preference or desire to do something moral for others at one’s own expense, then thereby doing that will benefit the agent him or herself nevertheless. For instance, if I want to save someone and I know that the only way to do that is to sacrifice my life or health or property, and I still decide to do that (I identify it as my preference), then under the definition of benefit as preference-satisfaction I would claim that saving that person will benefit me (with respect to this specific preference, as it will not benefit me with regards to other preferences, such as my desire to stay alive myself or preserve my health)
Thereby, we can formulate an entirely non-circular definition of value is that

*object X is valuable to agent R, if X has the ability to satisfy R’s preference g.*

The extent to which it satisfies R’s preference is the extent to which it is valuable to him or her. Just like freedom is a property of an agent because the agent’s ability to undertake an opportunity is a property, we can say that value is a property of an object because of the object’s ability to satisfy a preference of the agent (in other words, the preference satisfaction capacity that a particular object possesses is this object’s property).

This definition of value may seem quite controversial at first for two main reasons. The first set of objections would be based on the fact that this definition seems to be entirely subjective, since the value of an object depends entirely on specific subjective preferences of an agent and may often seem counter intuitive. One can expect a whole array of counterexamples, such as when an agent has preferences that by our intuition and moral standards are considered extremely detrimental to the agent or to other agents and thus valueless. For instance, if R desires to use drugs, eat unhealthy food or spend one’s entire savings at a casino, are those things therefore valuable to R? Conversely, if one does not desire to study, learn and stay healthy, does that mean those things are not valuable to that agent? Just because one agent has a particular preference and finds things that satisfy it valuable, it would not make this thing valuable to other agents, who have different preferences and hence the value is entirely subjective under this definition and can apply only to individual particular agents. Using Carter’s term, this definition is a definition of *specific* value, as it seems to apply to a particular agent with a particular preference. Speaking of other agents, if one receives satisfaction from harming or killing other individuals, are those activities therefore also valuable?
The answer to these questions will be explained in detail throughout most of this chapter. Briefly, it consists of three elements. First, it is the fact that an agent rarely finds all of the effects of a particular object or activity valuable, but only limited and qualified effects that affect only a specific preference or preferences (for instance it may be strictly the taste of unhealthy food that an agent finds valuable, but not the negative effects it has on his or her health). Thus, once we begin considering sets of multiple preferences affected by an object or an activity, it is the total net value that constitutes the overall value or an object to the agent. Second, once we quantify agent R not as a specific agent with a specific set of preferences, but as any agent with any set of preferences, we shall move away from a concept of purely subjective specific value that depends on specific preferences of a specific agent, and we will arrive at a concept of what I earlier defined as primary value, value that makes an object or activity valuable in relation to any agent with any set and content of preferences. That value will be non-specific and will not depend on any specific preferences of any specific agents. Third, once we also add to the definition of value the additional term of other numerically different non-specific agents (dependent agents), whose preferences are also affected by the object or action in question in addition to the preferences of the principal agent, we will arrive at a definition of universal value, i.e. value that is not only primary, i.e. valuable to any (qualitatively different) agent with any set of preferences, but is also universal, i.e. valuable to all (numerically different) agents with any sets of preferences that are affected by the object or activity in question. This is the same type of value as was defined for the cases involving only numerically single agents, and is merely transposed into situations where one takes into account the preferences of multiple agents, or all agents that are affected by a particular action or its results.

The second set of objections can be expected to be based on the fact that this definition of value is instrumental and not intrinsic. Thus, it cannot be entirely independent of any one’s desires or preferences. The answer to this is simple. The definition of value based on preference satisfaction does not preclude the possibility of the existence of intrinsic value. There have been numerous attempts beginning with Plato to try to prove the
existence intrinsic value or good that was said to be possessed by concepts such as justice, beauty, knowledge, etc. However, the arguments have never been entirely successful, and not necessarily because no such value exists, but perhaps because it is extremely difficult to prove it. Hence, I am neither denying nor affirming the existence of any concept of intrinsic value, I am simply not considering it because of the difficulty and, in my opinion, near impossibility to prove it. Instead, the preference-satisfaction based concept of value is a concept of value that can be logically proven with considerable ease and allows us to arrive at a strict and non-porous definition of primary and universal value that is stiff and firm and can withstand most attempts to manipulate or misinterpret it. Perhaps freedom (or anything for that matter) does also have other types of values, such as intrinsic value, as, for instance Sen and some other philosophers believe, but proving that is beyond the scope of this work. I am thus not denying that freedom may have intrinsic value as well as instrumental, as to deny that would be illogical unless there can be produced an irrefutable proof of such a claim. Carter also claims that “[i]t is unnecessarily dogmatic to say that we ‘do not’ value freedom as one of our ends [intrinsically], simply because we can see that some people might value freedom in this way, and it is difficult to see on what basis such people can be called irrational.”45

Conversely, some proponents of the view that freedom has intrinsic value do not deny the fact that freedom also has instrumental value. Sen, for instance, writes:

…[t]hat freedom must have instrumental importance as a means to other ends is obvious enough. For example, what living standard we can enjoy must depend, at least partly, on how free we are to choose one bundle of commodities rather than another. No matter how we define the exact content of freedom - on this more presently - the role of freedom in helping us to achieve what we may value achieving is perspicuous enough.46

45 Carter, A Measure of Freedom, p. 44.
As will be shown later, however, Sen defends the value-based approach to measuring instrumental value of freedom, i.e. the approach where the content and the value that a specific agent assigns to individual opportunities within a set and to his or her own preferences dictates the overall value of the opportunity set measured. I will show that this can, of course, work on the specific level of value, but it will not be possible to apply this to non-specific level of value, i.e., where we are ignorant about particular preferences and their ranking for a particular agent. Therefore, on the level of non-specific value, I will be defending what Carter calls the empirical approach to measuring value of opportunity sets, where we completely disregard the content of and do not assign different values to individual opportunities and preferences.

My conclusion, therefore, will be very similar to Carter's, as I will show that freedom has non-specific instrumental value. As he states, “[i]f freedom is ‘non-specifically valuable’, then we attach value to our freedom not only because of the specific things it allows us to do, but also because of the mere fact of our having freedom. To say that freedom is non-specifically valuable is to say that it is valuable ‘as such’.”\(^{47}\) Although when considering instances of specific freedom, its value will naturally be specific as well, when considering non-specific freedom, however, I will show that it accordingly has non-specific value. Along with Carter, I believe that “[i]t is indeed quite consistent (as well as plausible) to say that freedom has both non-specific value and specific value. My aim here is not to deny that freedom has specific value, but to argue that it also has non-specific value.”\(^{48}\)

Although my method of proving that freedom has value is different from Carter’s, the essence of the relation of freedom to value is very much the same. The below quotation from Carter’s is extremely important, as it summarises this essence, as shall be especially evident after I outline my arguments throughout the rest of this work:

\(^{47}\) Carter, *A Measure of Freedom*, p. 34.
\(^{48}\) Ibid. p. 36.
How, it will now be asked, can freedom be non-specifically valuable and yet only instrumentally so? The answer lies in our ignorance about the nature of the ultimate good being realized, so that this ultimate good is not characterizable (p.36) in terms of the instrumental values of specific freedoms. The easiest way to grasp this point is by means of an analogy with the value we attach to money. Most of us do not see money as intrinsically valuable; most of us see it only as a means to certain ends. However, when asked to specify those ends, we often find that we are unable to do so. We say that we would like to win the national lottery, and yet when asked how we would spend the money we are often not able to give a clear answer. This does not make our desire to win the lottery irrational. The point is, rather, that we do not value money only as a means to buying the latest recording of Mozart’s symphonies or as a means to eating a bar of chocolate, but also as a means to satisfying whatever our future desires may turn out to be. That is why even those of us who like Mozart and chocolate more than anything else still prefer money to record tokens and chocolate rations. Freedom, like money, can be thought of in the same way as ‘non-specifically’ instrumentally valuable—as being valuable not because certain specific freedoms help to bring about a certain specific end or set of ends, but simply because our ends (which we are not able at present to specify) are better promoted by there being more freedom than by there being less.\footnote{Carter, A Measure of Freedom, p. 36.}

3.2 Defining Value

Let us now begin building our definition of value as preference satisfaction capacity and start, as we also did with the definition of freedom, with the most simple specific level and then move up to the more complex levels by expanding the quantifications of the terms in the formula. The initial definition concerns only specific value: value of a specific object X in relation to a specific preference \( g \) of a specific agent R. Strictly with respect to the concept of specific value on this level, it is perfectly logical and not contradictory to say that if some activity that seems to be harmful, such as drug abuse, satisfies a particular preference of R, then this activity is valuable to R (to be precise, only those specific consequences of undertaking such an activity, which satisfy
particular preferences of the agent). The value is qualified in this case strictly to the specific preference that the activity satisfies. That is, drug abuse only satisfies R’s particular qualified preference of experiencing particular effects that R finds enjoyable. Hence, this activity is in fact valuable to R, but only to a strictly limited extent of satisfying a particular preference. It is not valuable to R, however with respect to other preferences, by virtue of other effects that the activity causes, which either do not satisfy or upset other preferences of the agent. It is thus not contradictory to say that X can be valuable to R in terms of satisfying preference g, whilst at the same time it is not valuable or is even harmful to R in terms of not satisfying or upsetting preferences h, i and j. Therefore, we now need to apply a universal quantifier to the variable Z, which is the agent’s preference in the initial definition of specific value. This will provide us with a formula not of specific value, but of overall value of an object to a specific agent. Therefore,

*the overall value of object X to agent R is proportionate to X’s net ability to satisfy and to upset all of R’s preferences.*

Hence, we can classify objects into different classes based on their net value in virtue of their effects on the agent’s overall set of preferences. We can identify thus objects with positive, negative, neutral and mixed net values with various degrees in between. Objects with purely positive value only satisfy one or more of the agent’s preferences, without upsetting any other preferences. Objects with purely neutral value neither satisfy nor upset any of the agent’s preferences. Objects with pure negative only upset the agent’s preferences, without satisfying any. Objects with mixed value satisfy some whilst upset other preferences of the agent. If the agent decides to spend a free evening by reading a favourite novel, then that object (reading the novel) has purely positive value: it satisfies a preference of the agent without upsetting any of his or her other preferences. If the agent is given as a present a statuette which he feels indifferent about and puts away in a box, then this object has purely neutral value, as it neither satisfies not upsets any of the agent’s preferences. If the agent by accident falls down
the stairs and breaks an arm, then this result (having a broken arm) has purely negative value, as it only upsets, whilst not satisfying any of the agent’s preferences. If the agent decides to eat unhealthy food, which causes him or her severe indigestion that the agent does not enjoy, but the taste of which food the agent profoundly enjoys, then this is a mixed opportunity: it satisfies one preferences, whilst upsetting another.

Any object or activity, most of which are in practice mixed, can thus be placed at different points on this scale depending on the total net value they have to a particular agent. For instance, one can claim that whilst drug abuse has value to a particular agent in so far as it satisfies the preference of experiencing enjoyable mental states, it upsets many other preferences that the agent has, such as the preferences of not wanting to be addicted, to harm his or her health and to spend a money on the drugs. Therefore, the activity would rank very low on the scale of net value. This is similar to what Carter means by disvalue and costs to value. Instead of using the term net value, he uses the term value on balance: “[t]he additional complication brought about by the introduction of costs into our analysis means that we need to distinguish, for the sake of clarity, between a thing having value (or being valuable), and that thing having value (or being valuable) on balance. [something] has non-specific value on balance if [something]’s non-specific value outweighs [its] non-specific disvalue.” He specifically talks here about freedom, which I have replaced by the word "something", as at this point I am discussing strictly value itself, not value of freedom or of any particular phenomenon.

In addition this system allows the agent to assign different values to various preferences based on their content. For instance, if a particular agent says that although drug abuse may have negative net value for other agents as it upsets many more preferences that it satisfies, for this specific agent the very few preferences that it does satisfy are much more important and valuable, and therefore the net value of the activity of drug abuse for this specific agent would rank highly. Hence, if the agent finds a certain object or

50 Carter, A Measure of Freedom, p. 61.
activity to satisfy a preference which he or she finds to be more valuable than those preferences which said object or activity upsets, then, as long as the agent does take into account all those other preferences which the object or activity upsets, it is absolutely logical and not contradictory to claim that for that agent a particular object or activity that upsets more preferences that it satisfies, has a high degree of value in virtue of the fact that those few preferences that the object or activity does satisfy are of greater importance to that particular agent. This may seem like a very subjective definition of value, as it is based on subjective and arbitrary preference rankings of specific agents, however this applies only to the stage of the definition of value that pertains only to specific agents with specific preferences. On this level (and only on this level) of overall value to a specific agent, the value-based approach that Sen takes does work, as a particular agent can assign different degrees of value to different preferences based on their content.

So far we progressed from the definition of value of a specific object by virtue of its ability to satisfy a specific preference of a specific agent to the definition of net or overall value of a specific object by virtue of its ability to satisfy of all preferences of a specific agent. Before we proceed to expanding the next variable, we can still make another step regarding the variable of the preferences of the agent. Given that the agent subsists through time and his or her preferences change or may change over time, we can denote by $Z$ not only the current set of preferences of an agent at a particular given moment, but all potential future preferences. This way we can identify the net value of an object to the agent not only by its capacity to satisfy the current preferences of the agent, but also by its capacity to affect future potential preferences. For instance, although at $t_1$ throwing away one’s family’s old furniture from the house may have purely positive net value, as it will satisfy the preference of making more room in the house whilst not upsetting any other preferences, at $t_2$ this same action may turn out to have highly negative value, as the agent may grow to regret throwing away the furniture and feel nostalgic about it. Therefore, in the future the action will have upset the agent’s preference of wanting to keep the furniture which unexpectedly to the agent himself,
turned out to be a much more important preference than the one of wanting to have more room in the house. Similarly, eating unhealthy food may seem to be an activity of purely positive value at a particular moment, because it satisfies the desire to experience its taste, however later, once the food’s detrimental effects will start harming the agent’s health, this will upset the preference of wanting to be healthy, which will make the activity’s net value negative. Hence, considering this expansion of the terms of the preference set, we can define value the following way:

*the overall value of object* $X$ *to agent* $R$ *is proportionate to* $X$’s net ability to satisfy and to upset all of* $R$’s current and future preferences.*

Thus, given that sets of preferences of individuals often change due to various circumstances, in many cases in such a manner that could not have been predicted by the individual him or herself earlier, it is important to account for this potential change of preferences when considering net value of objects to even a specific individual agent. Hence, expanding the set of preferences from current to potential future ones, it may not be as easy to claim that some greatly harmful activity such as drug abuse has positive net value to a specific agent just because at a particular point in time the agent finds the preference that the activity satisfies more valuable than the preferences that the activity upsets. Hence, although at $t_1$ the agent may rank the preference of enjoying positive experiences that drug abuse satisfies much higher than the preferences that the activity upsets, such as not being addicted and maintaining good health, at $t_2$ the agent’s set and ranking of preferences may change. For instance, at $t_2$, when dying in pain because of drug addiction related health problems, the agent may think that earlier he should have ranked the preferences of staying healthy and not being addicted higher than the preference of enjoying the positive experiences that drug abuse satisfies. Therefore the calculation of net value of an activity or an object to a specific agent should take into account not only the current set and ranking of preferences but also any potential changes in it. Very extensive discussions of this factor were also
presented by Tjalling Koopmans\textsuperscript{51} and later David Kreps\textsuperscript{52}, who termed this factor as desire for flexibility of future preferences. Kreps says the following:

Why should anyone desire such flexibility? The individual choosing a menu would likely make some statement about being uncertain about something or other. For some reason, he is unsure about what will be his mood on the evening in question. Perhaps he is unsure about what he will have had for dinner on the previous evening. Perhaps he cannot explain why he is uncertain about his future mood, but he claims to be unsure of it nonetheless. This rationalization for (1.3) is naturally termed "uncertainty about future tastes."\textsuperscript{53}

So far we have spoken of specific single agents with specific sets of preferences. Hence, for instance, if specific agent R dislikes potatoes and likes cabbages, then dinner X that consists only of potatoes will have no value for R at a particular moment, whilst dinner Y that consists only of cabbages will have value for R at that moment. In other words, dinner Y will have more value to R than dinner X. This value is thus purely subjective, as it depends on a specific set of overall preferences of a specific agent. Dinner Y will lose its value if the agent is not R but a different agent P, who has different preferences and dislikes cabbages.

The next step is to quantify the variable for the agent so that in the formula R will refer to not a specific single agent, but to any single agent. This way we shall be able to proceed from a purely subjective definition of value that depends on the content of the preferences of a specific single agent to a definition of primary value, which will not depend on the preferences of any single agent. Thus, the formula will be the following:

\textit{Object X has primary net overall value to the extent that it can satisfy all of the current and potential future preferences of any single agent R.}


\textsuperscript{53} Kreps, "A Representation Theorem for 'Preference for Flexibility,'" p. 566.
Substituting a specific agent who has a specific set of overall preferences by any agent who has any set of overall preferences will give us a formula of primary value that will not be contingent and will not depend on specific preferences of a specific agent. Those objects or activities have greater net value, which can result in a greater net preference satisfaction of any agent, even if their sets of overall preferences and the particular preferences are different or even contradictory and mutually exclusive. Thus, dinner Z that offers the option of either potatoes or cabbages, will have a greater capacity to satisfy preferences of any agent with any set of preferences. Unlike dinner X that can satisfy a preference only of an agent who likes potatoes and dislikes cabbages, and unlike dinner Y that can satisfying a preference only of an agent who likes cabbages and dislikes potatoes, dinner Z can satisfy the preferences of both of these agents, despite their preferences are mutually exclusive. Hence, we can see that by substituting a specific agent who has a specific set of preferences by an abstract, non-specific agent (any agent) who has an abstract non-specific set of preferences (any set of preferences), we have arrived at a definition of value that is primary, i.e. value that makes object or activity X valuable not only to a specific agent R because it satisfies his or her specific preferences, but to any agent, regardless of his or her current or potential preferences. Thus, something has primary value, if it has the capacity to satisfy preferences of any person, regardless of the person’s specific desires, preferences, beliefs, etc. An example of something that has purely non-specific value, as it is valuable to any non-specific agent is law and rights. Laws or rights are not written for any particular specific agent with a specific set of preferences, but for all agents that live in a country (of the world, if it is international laws or rights), and moreover, for all potential agents that will be born. Laws and rights are always under the veil of ignorance as to the specific preferences of specific individuals, but are designed to apply and to benefit any individual, even if the individuals may have contrary preferences. They do differentiate between different types of agents, but never between different specific agents: there is never a law or a right that is written specifically for one specific person. Even those laws that apply to singular individuals (the Prime Minister,
the Pope, the King, etc.), they apply to all non-specific individuals, who may happen to hold that office at a particular point in time.

Although in the above definition the term R includes any agent with any preference sets, it is still limited to preferences of only numerically one agent, as “any” implies only qualitative but not numerical variety of agents. Some activities or objects, however, whilst being able to satisfy preferences of numerically one but qualitatively any agent, at the same time may upset preferences of numerically different, other agents. This means that an activity or object that has certain primary net value in virtue of satisfying preferences of qualitatively any but numerically one agent, may not have the same net value in relation to numerically different agents, as it may upset their preferences. Hence, the definition of value we had so far is that of primary value, but not of universal value. To make it universal as well as primary, we need to make the definition of value apply not only to the preferences of any agent (numerically single but qualitatively any), but also to the preferences of all other numerically different agents, whose sets of preferences can be affected by a particular object or activity in question. Hence, the final definition of value, which is both primary (includes preferences of any agent) as well as universal (includes preferences of all agents) is the following:

*Object X has primary net overall value to the extent of its net ability to satisfy all of the current and potential preferences of any single agent R (principal agent) as well as of all other numerically different agents P, whose preferences are also affected by X (dependent agents).*

This way we will not be able to claim that something that profoundly satisfies many preferences of the principal agent, but at the same time upsets many preferences of other numerically different agents has primary and universal value. For instance, a law that would allow one to use unknowingly free slave labour will only have primary but not universal value, as it will satisfy preferences of the principal agent, whoever that person happens to be, but it will upset preferences of other agents, i.e. of the slave labourers.
3.3 Qualifying the scopes of measurement and comparisons of degrees of value

There have been two main approaches to measuring value. The first one is where the measurement of opportunity sets is conflated with measuring its value: one measures the degree to which a particular opportunity set can satisfy the agent’s preferences, which degree thus reflects the value of the whole opportunity set. This has been the approach of many economists such as Pattanaik and Xu\textsuperscript{54}, Arlegi\textsuperscript{55}, Bossert\textsuperscript{56}, etc. The other approach is the non-normative measurement of opportunity sets strictly in terms of how many opportunities they contain. This approach divorces the question of how to measure the degrees of freedom in opportunity sets from the question of whether the opportunity sets that have a greater degree of freedom therefore have more value and are to be preferred by the agent. This latter method has been used in particular by Carter and Steiner. As Robert Sugden explains,

In economic analysis, it is normal to represent each individual as making a choice between options, one and only one of which will come about as a result of that choice. The set of available options is the individual’s opportunity set. At first sight, it might seem that what is required is a measure of how well an opportunity set caters to an individual’s actual preferences. In economic theory, this is measured by the indirect utility of an opportunity set (that is, the utility that an individual would enjoy if she maximized her utility subject to the constraint of choosing from that set). This is an entirely sensible measure of the value of an opportunity set to an individual whose preferences are given. However, it is not a measure of opportunity in any genuine sense. [...] At the opposite extreme to the actual-preference approach is the idea of measuring the size of an opportunity set as a pure quantity, without any reference to human

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preferences or values. One simple form of ‘pure quantity’ measurement underlies Steiner’s (1983) measurement of freedom. This is to treat options as discrete entities and then to count the number of options in an opportunity set.\textsuperscript{57}

I will be resorting a variant of the second method. I will first identify how value can be measured as a property \textit{per se}, regardless of what this property can be of. That is, measurement of value as preference-satisfaction will not be in any way at first connected to measurement of opportunity sets. Then, as the second step, I will identify how opportunity sets can be measured, which will be a question entirely different and separate from the question of value of opportunity sets and of how they can satisfy preferences. Only once these two tasks are accomplished, shall I conjoin both concepts (freedom and value) and prove that freedom as opportunity sets has value as it has preference satisfaction capacity. I will thus first define what criteria something X is required to meet in order to have value and then will show that freedom as opportunity sets does meet those criteria and can be substituted for X in the definition of value. This is a very different approach from the one used by economists who conflate the question of the nature and measurement of value as preference satisfaction with the question of the nature and the measurement of freedom as opportunity sets.

Assigning numbers to different preferences and objects based on their ability to satisfy preferences will necessarily be based on arbitrary and contingent units and not on any real existing parameters. Anything that will look like “R has preference g which weighs 5 points, preference h which weighs 2 points and preference i which weighs 7 points, object X can satisfy preference g to 54%, preference h to 21% and upset preference i by -16%, and therefore the total net degree of value of object X for agent R is [number]” will have little relevance, as there can be no principle to dictate the assignation of any particular numbers in such a way as to make them accurate and reflect reality, despite the fact that some theorists, such as Steiner\textsuperscript{58}, have tried to use this method. The only

\textsuperscript{58}Steiner, “How Free”, p. 452.
way to identify value or degree of value in objects non-contingently but absolutely is by comparisons of objects to other comparable alternatives. This will allow us only to say that a certain object has greater or smaller degree of value than a certain other object, however evaluative statements of this nature will be true non-contingent statements, unlike evaluative statements that invoke numbers or specific degrees of value that will be based on fictitious and contingent scales and units.

Given that creating any units of measurement of value akin to units used for measurements of lengths such as centimeters or inches will be arbitrary and entirely unnecessary, it will be more effective to measure and express value through relations and proportions between different objects that possess different degrees of value. For instance, statement “object X is 75 units long” is not a universally true statement, as its truth value is contingent and is based on how we define these units. Statement “object X is longer than object Y”, however, can be an entirely true statement, as it does not depend on defining any arbitrary units but describes a relation or a proportion between objects that have set and non-contingent measurements and properties. This method of measuring value that I am presenting, therefore, is analogous to doing geometry without resorting to any units, but instead by expressing all measurements and relations solely by relations and proportions of different lengths, angles or areas to each other. In geometry, because it is a non-empirical and abstract science and is based entirely on a priori necessary truths, all of the axioms, theorems, proofs and demonstrations do not rely on any specific empirical units, but are always founded on and are expressed through relations between lengths, angles or areas. Similarly, since we want to provide a philosophical (that is based on statements that a priori and are necessarily true) demonstration of relations and measurements of value, we shall analogously stay away from introduction of any specific contingent units but will express our demonstrations and axioms solely through abstract non-contingent a priori relations.
In fact, there have been already considerable discussion of this method of measuring the value of alternatives by comparing them to each to each other in economics. According to Ricardo Arlegi,

Many types of individual and collective decision problems involve comparisons between sets of alternatives. In recent years there has been a growing interest in the formal modeling of a preference over subsets of a given set of basic alternatives. Indeed the models which have been developed differ substantially depending on the particular context where such evaluation of subsets takes place. Thus, for instance, the literature on set comparison has been motivated in the context of individual and social choice under uncertainty.\(^{59}\)

When measuring the value of objects, the object itself and the alternatives in relation to which the object’s value is measured must necessarily be comparable to each other. This means that by far not all objects’ values can be compared to each other, but only to comparable alternatives. Moreover, one cannot measure the value of a single object, unless it is done so in relation to another comparable alternative. We cannot identify the value of X without invoking any measurements, hence the only way we can measure it is by saying that the value of X is greater or smaller than the value of object Y. If we were practicing geometry without units, we also would not be able to say how long line X is, unless we do so by comparing it to another line Y, as the result of which we could say that, for example, line X is twice as long as line Y, which would be a necessarily true statement.

Let us consider the simplest level of specific value of a specific agent in relation to a specific preference. Object X can satisfy R’s preference \(g\), whereas object Y cannot satisfy R’s preference \(g\). We can claim with certainty that in this specific scenario of agent R and preference \(g\), object X has greater value (preference-satisfaction capacity) than object Y, which is a statement that is necessarily true. Let us now consider a

\(^{59}\) Arlegi and Nieto, “Ranking opportunity sets,” 23.
different scenario where object X can satisfy R’s preference \( g \) and object Y can also satisfy R’s preference \( g \), but to a much greater degree. We can thus conclude with absolute certainty that object Y has a much greater value than object X, which is a true statement as well.

Let us now consider object Z, which can satisfy R’s preference \( h \) only. The value of this object we cannot compare to the values of objects X and Y, which relate to the satisfaction of preference \( g \), not \( h \). Hence, whilst objects X and Y are comparable with each other, because they relate to the same preference, object Z is not comparable to either X or Y, and we cannot make a statement concerning whether Z is more valuable or less valuable than X or Y.

Now we can consider a scenario on a more complex level, not regarding merely one preference but a set of multiple preferences of R. The same principle will apply: we can identify value of an object only in comparison to a comparable alternative object, meaning such that will concern a comparable set of preferences. Consider object X, which can satisfy preferences \( g, h \) and \( i \) and object Y, which can only satisfy preferences \( g \) and \( h \), but not \( i \). We can thus conclude with absolute certainty that object X has a much greater value to R than object Y, which is a necessarily true statement. Consider another scenario, where object X satisfies preferences \( g, h \) and \( i \), whilst object Y satisfies preferences \( g \) and \( h \), and upsets preference \( i \). We can thus also conclude with absolute certainty that object X has greater value to R than object Y. Consider another scenario where object X upsets preference \( g, h \) and \( i \), whilst object Y upsets only preference \( g \), satisfies preference \( h \) and has no effect on preferences \( i \). We can thus also infer with absolute certainty that object Y has greater value to R than object X.

There can many scenarios, however, where objects are not comparable. For instance, if object X satisfies preferences \( g \) and \( h \), whilst object Y satisfies preferences \( i \) and \( j \). These cannot be compared as they concern entirely different sets of preferences. The key criterion is not only the number of preferences, but the qualitative identity of the
preferences that can be satisfied by each alternative. If object X only satisfies preference \( g \), and object Y satisfies preferences \( h, i, j \) and \( k \) only, we cannot compare the values of the two alternatives and cannot say that since object Y can satisfy a greater number of preferences, therefore object Y has greater value than object X. Similarly, if object X satisfies preference \( g \) but upsets preference \( h \), whereas object Y satisfies preference \( g \), but upsets preferences \( i, j \) and \( k \), we cannot claim that object Y has a smaller degree of value merely because it upsets a greater number of preferences: although the number of the preferences that Y upsets is greater than the number of preferences that X upsets, the qualitative identities of these preferences are different.

On the specific level of value (i.e. only regarding a specific agent), however, we can make these alternatives comparable if we assign preference ranking that a specific agent may have. For instance, we can say that in the last example (object X satisfies preference \( g \) but upsets preference \( h \), whereas object Y satisfies reference \( g \), but upsets preferences \( i, j \) and \( k \)), object Y is of greater value to agent R, provided agent R ranks the value of preferences \( i, j \) and \( k \) combined lower than the value of single preference \( h \). Although this will allow one to make legitimate comparisons of value of this type of alternative for specific agents, it will not be possible to do so once we move up a step and consider primary value in relation to preferences of any agent R, as in that case we will not be able to assign degree of values to various specific preferences based on an individual agent’s ranking, since it will not be a specific agent we shall be considering. Nor will it entirely work if we are considering all potential and future preferences of even one specific agent. At \( t_1 \) agent R may rank preference \( h \) much higher than \( i, j \) and \( k \) combined, yet later, at \( t_2 \) he or she may change his or her mind and rank these preferences differently. Hence, any introduction of specific value of specific preferences based on their content will make any comparison and determination of value contingent on the specific level, and entirely impossible on the level that concerns a non-specific agent.
In the chart below I have outlined the main types of combinations of alternatives and identified whether they are comparable or not. By absolute comparability I mean that one of the alternatives is more valuable (has greater preference-satisfaction capacity) than the other necessarily and \textit{a priori}, regardless of how the agent ranks different preferences and what value he or she assigns to them (by the fact that something is a preference of an agent, we imply that the agent assigns at least some value to it greater than absence of any value). By incomparability or contingent comparability, I mean that the only way we can compare the value of two alternative is if we know the specific ranking of preferences by the specific agent in question, i.e. which preferences the agent values more and which less compared to each other. Even if we make a comparison of value based on these circumstances, the comparison will be entirely contingent and cannot be made absolutely and with respect to any other agent with different ranking of preferences or even with respect to the same agent whose ranking of preferences may change in the future.

<table>
<thead>
<tr>
<th>Type of combination of alternatives</th>
<th>Comparability of the alternatives</th>
<th>Alternative X</th>
<th>Alternative Y</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>Absolute (X is more valuable to R than Y)</td>
<td>Satisfies g</td>
<td>Does not satisfy g nor any other preference</td>
</tr>
<tr>
<td>II</td>
<td>Absolute (X is more valuable to R than Y)</td>
<td>Satisfies g</td>
<td>Upsets g or g and one or more other preference, and does not satisfy any other preferences</td>
</tr>
<tr>
<td>III</td>
<td>Incomparable or contingent</td>
<td>Satisfies g</td>
<td>Does not satisfy g, but satisfies another preference that is not g</td>
</tr>
<tr>
<td>IV</td>
<td>Incomparable or contingent</td>
<td>Satisfies g</td>
<td>Upsets g, but satisfies another preference that is not g</td>
</tr>
<tr>
<td>V</td>
<td>Absolute (Y is more valuable to R than X)</td>
<td>Satisfies g</td>
<td>Satisfies g and in addition one or more other preferences that are not g</td>
</tr>
<tr>
<td>VI</td>
<td>Absolute (Y is more valuable to R than X)</td>
<td>Satisfies a set of multiple preferences</td>
<td>Satisfies a set of multiple preferences B that includes all the preferences contained in</td>
</tr>
</tbody>
</table>
Although this is not an exhaustive list, and there can be added a number of additional combinations, we can clearly see that combinations of the types I, II, V, VI and IX are comparable absolutely, in which one alternative is said to possess a greater degree of value than the other necessarily, whilst III, IV, VII and VIII are not comparable. The only relevant combinations for the purposes of this work are the ones that are comparable absolutely, since we want to identify relations of degrees of value that are not contingent but are necessary.

### 3.4 Outlining the principles of measuring freedom

Once we have defined value and outlined the principles of its measurements, before we determine if freedom has value, let us now also identify the basic principles regarding the methods of measuring freedom. For the same reasons as we have identified in the
above section, I will avoid using any units or assigning numbers to measure degrees of freedom in conditions, but will only do so by comparing different conditions to each other and evaluating the degree of freedom that a condition has in relation to another comparable alternative condition. We are only interested in making logically and necessarily true statements when determining the degree of freedom a condition possesses and not in making any contingent estimations.

Given that many alternative conditions are not comparable in terms of their degree of freedom in relation to each other, we need to outline those types of combinations of alternative conditions that are comparable with respect to the degrees of freedom they possess, just like we did when we outlined different types of combinations of alternative objects in terms of their comparability with respect to the degrees of value they have. Pattanaik and Xu present a somewhat similar scheme of ranking opportunity sets based on their cardinality\(^{60}\) (the numbers of opportunities available in the sets compared), which they formulate as a theorem using their own definitions and terms. I will not explain or summarise it here, as it will require extensive explanation and not all of it is of relevance to the goals of this work. Arlegi succinctly summarises their method as a procedure “…in which sets are compared through the indirect utility derived from the preference over the universal set of alternative; that is a set A is to be preferred to another B if and only if the maximal utility attainable in A is greater than in B.”\(^{61}\)

Instead I will present my own scheme that is much simpler and serves perfectly well for the specific purposes of our investigation. Also note, that Pattanaik and Xu as well as most other theorists conflate the discussion of the ranking of opportunity sets with that of ranking their value or preference-satisfaction capacity. I, however, treat these as two separate analyses, as we have not proven yet that freedom, which is opportunity sets, has value. Thus, we should treat at first measurability of freedom and measurability of value as two separate subjects. In the previous section I have outlined a scheme for

\(^{61}\)Arlegi and Nieto, “Ranking opportunity sets,” p. 28.
comparability of objects in terms of their degree of value. In this section I am outlining a scheme for comparability of conditions (opportunity sets) in terms of their degrees of freedom. Thus, the table below has nothing to do with the question of which of the alternatives has greater value or which should be preferred by the agent, it strictly concerns the question of which alternative has the greater degree of freedom. The connection between freedom and value has not yet been made.

<table>
<thead>
<tr>
<th>Type of combination of alternatives</th>
<th>Comparability of the alternatives</th>
<th>Alternative Condition A</th>
<th>Alternative Condition B</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>Absolute (A has more freedom than B)</td>
<td>Contains opportunity X</td>
<td>Does not contain X nor any other opportunity</td>
</tr>
<tr>
<td>II</td>
<td>Incomparable or contingent</td>
<td>Contains opportunity X</td>
<td>Does not contain X, but contains another one or more opportunities that are not X</td>
</tr>
<tr>
<td>III</td>
<td>Absolute (B has more freedom than A)</td>
<td>Contains opportunity X</td>
<td>Contains opportunity X and in addition one or more other opportunities that are not X</td>
</tr>
<tr>
<td>IV</td>
<td>Absolute (B has more freedom than A)</td>
<td>Contains a set of multiple opportunities K</td>
<td>Contains a set of multiple opportunities L that includes all the opportunities contained in set K, but also includes one or more additional opportunities</td>
</tr>
<tr>
<td>V</td>
<td>Incomparable or contingent</td>
<td>Contains a set of multiple opportunities K</td>
<td>Contains a set of multiple opportunities M, which includes a greater or the same number of opportunities that set K includes, but excludes one or more opportunities contained in set K</td>
</tr>
</tbody>
</table>

We can see that only combinations I, III and IV are comparable, meaning that one can make a logically true statement that one of the alternative conditions has greater degree
of freedom than the other. In the comparability chart outlining relations of alternative objects in terms of their value based on their ability to satisfy preferences we had a greater number of types of combinations, as we considered two types of effects that objects had on preferences: satisfying and upsetting. This was due to the fact that the formula for value included the additional term of preference, which is not contained in the formula for freedom. The formula for value, thus contained the following terms: the agent, the object (or activity) and the agent’s preference. The value is thus determined by the net ability of the object or activity to satisfy the agent’s preferences. The formula for freedom, however, contains only the agent and the opportunities available to him or her. Thus any measurement of freedom per se does not concern the ability of opportunities to satisfy the agent’s preferences. The measurement of freedom concerns only the presence of opportunities in an agent’s condition. This chart of measurability of freedom in alternative conditions can be taken to a more complex level, that will include the opportunities’ effect on other opportunities (whether they are productive, reductive or neutral, or, using Carter’s term, their compossibility), however, that is a separate subject that is beyond the scope of this investigation. Let us now illustrate these types of combinations.
At this level the only possible measurement of freedom is binary: a condition either has freedom or it does not. We can thus say with certainty, as a statement that is necessarily true, that alternative A has more freedom that alternative B, given that any positive degree of freedom is more than none. Note, that since this case concerns only a specific opportunity, it is thus a case of specific freedom, and of not overall or qualified freedom. There is freedom in relation specifically to X in the first alternative and there is no freedom specifically in relation to X in the second alternative.
In this case we can see, that although both alternatives have some degree of freedom (there are at least some opportunities present in both conditions), it is impossible to evaluate the degrees of freedom, as these alternatives are not comparable, as they contain qualitatively entirely different opportunities with no overlaps.
In this combination we see that there is a complete overlap of qualitatively identical opportunities and in addition to that, there is one more opportunity present in alternative B, that is not present in alternative A. Thus, we can make a necessarily true statement that alternative B has a greater degree of freedom than alternative A: in alternative B agent R can do everything he or she can do in alternative A, but in addition to that he or she can do more. Agent R in alternative A, however, is disadvantaged, as he or she cannot do everything that R can do in alternative B.

Figure 4: Combination IV

Analogously to the previous combination, there is a complete overlap of qualitatively identical opportunities here, with an additional opportunity present in alternative B. We can also, therefore, make a necessarily true statement that alternative B has a greater degree of freedom than alternative A: in alternative B agent R can do everything he or she can do in alternative A, but in addition to that he or she can do more. Agent R in alternative A, however is disadvantaged, as he or she cannot do everything that agent R can do in alternative B.
In this combination, although both alternatives have some degree of freedom as each has a number of opportunities available, it is impossible to compare the degrees of freedom, as these alternatives are not comparable. They contain qualitatively different opportunities, although several but not all of the opportunities overlap. Simply comparing the numbers of opportunities present in different conditions is not sufficient to evaluate the degree of freedom, since their opportunities are qualitatively different and concern different objects of actions. Given that the opportunities are incomparable, the conditions therefore also become incomparable.

If we take into account, however, the effects that each of the opportunities has on the whole set of opportunities (whether the opportunities are productive, neutral or reductive, or using a different term, their compossibility), we will be able to make more complex comparisons. In the above combination, we can add that some opportunities create other new opportunities, whilst other destroy the opportunities already present. I will only provide a brief example below of how such calculations can be conducted, but expanding on this more extensively is beyond the scope of this work: it suffices only to show that such calculations are possible. Let us consider then the previous combination...
V, and assign each opportunity a class and the effects it will have on other opportunities. By “p”, “n” and “r” I refer to whether the opportunity is productive, neutral or reductive respectively, followed by the name of the opportunity in parenthesis, to which a particular effect applies.

Figure 6: Combination V with addition of classes of opportunities

Opportunities W and V are neutral, meaning that if the agent undertakes them, they will not affect any other opportunities. Opportunity Z is purely reductive, by undertaking which the agent will deprive him or herself of the already existing opportunities X and W. Opportunity X is purely productive, by undertaking which the agent will not lose any existing opportunities but will acquire two additional ones, S and V. Opportunity Y is mixed: by undertaking it, the agent will attain opportunities U and T, but will lose opportunity Z. The rest of the opportunities operate in a similar way, as indicated by the letters in superscript.
Thus, we can recalculate the two opportunity sets based on which specific opportunity the agent will undertake. By undertaking certain opportunities, the agent in some cases can transform these opportunity sets into comparable or equivalent ones. For instance, in this case, if in alternative A the agent undertakes opportunities Y and X, he or she will transform the condition into one identical to alternative B. This method allows one to take opportunity sets to different and even extreme degrees of complexity. This method will allow models of purely theoretical opportunity sets become complex enough to represent and reflect many of the real world conditions of individuals. Of course, it will never be able to reflect in practice (although in theory it can), complete full opportunity sets a person may have, namely overall freedom in its original meaning (as Carter’s ratio between all available and all conceivably available opportunities). However, it can be perfectly applicable, accurate and convenient in measuring qualified sets of opportunities. As mentioned in the previous chapter, the concept of qualified freedom is in between specific freedom (in relation to a specific opportunity) and overall freedom (Carter’s ratio of all available opportunities). Qualified freedom regards only specific opportunity sets that are selected for purposes of a particular analysis. For instance, if I am moving to a different town and I have several alternatives, I will want to calculate, moving to which city will give me the greatest degree of opportunities, i.e. greater freedom. I will, therefore need to see in which town I will be able to do the most things out of a qualified sets of opportunities. The town in which I will be able to do everything I could in all other alternatives, but will be able to do more, will grant me the most freedom out of the available alternatives.

So far we have discussed measurability of value and measurability of freedom, but we have not yet discussed whether freedom is valuable, and whether, out of two comparable alternatives, the one that has a greater degree of freedom will be accordingly more valuable to the agent. Once we have outlined the definitions and measurement schemes of both value and freedom, we can now investigate whether freedom has value.
3.5 Determining whether freedom has value

We determined in the first section of this chapter that value is a property, and hence by saying that “freedom has value” we mean to say that an object that has the property of freedom automatically in virtue of having the property of freedom also acquires the property of value. Thus, we will be able to prove that freedom has value if we will be able to demonstrate that out of two comparable conditions that only differ in the degrees of freedom they possess, the condition that has more freedom has more value than the other condition.

We have identified that something has value, if it can satisfy one or more preferences of the agent, and that the greater net preference-satisfaction capacity of an object is, the greater is its net value. We have also identified that freedom is the presence of opportunities to the agent, and the greater the range of opportunities present in a condition is, the greater is the degree of freedom. Therefore:

\[
\text{Value} = \text{preference-satisfaction capacity} \\
\text{Freedom} = \text{opportunity sets}
\]

Thus, in order to prove that freedom has value, we need to show that opportunity sets have preference-satisfaction capacity. To show that the more freedom there is in a condition, the greater value the condition has to the agent, we need to show that the greater an opportunity set is, the greater is its preference-satisfaction capacity.

We can assume without any controversy, that an object can satisfy a preference of an agent only when the object is available to the agent and the agent is able to undertake it. An object that is not available to the agent cannot satisfy his or her preferences. For instance, food can satisfy one’s desire to eat only if it is available to him or her. Hence, given that when an object is available to the agent (and thus the agent is able to
undertake it) it by definition becomes an opportunity, then only opportunities (available objects) can satisfy preferences. Given that having opportunities available to the agent means that the agent is free towards these opportunities, therefore an agent’s preference can be satisfied only when he or she is free towards the object that can satisfy his or her preference. Therefore freedom has preference satisfaction capacity by providing the agent with the opportunities that can satisfy his or her preferences.

This was a very brief and condensed version of the argument. Let us now present it properly using the same atomistic method we used for defining both freedom and value, beginning with a strictly specific formula, and then gradually expanding the ranges of the terms in the formula one by one. For our convenience, I shall now outline in a table the different levels of value which we have identified earlier, and then I shall try to determine whether freedom possesses value on each of these levels. To do this, we will need to show that if we substitute X with freedom, it will meet each of these definitions.

**Table 3: Levels of Value**

<table>
<thead>
<tr>
<th>Level and quantification of the terms</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Specific subjective</strong></td>
<td>X is valuable to agent R, if X has the ability to satisfy R’s preference g.</td>
</tr>
<tr>
<td>Agent: single specific</td>
<td></td>
</tr>
<tr>
<td>Preference: single specific</td>
<td></td>
</tr>
<tr>
<td><strong>Overall (temporary)</strong></td>
<td>Overall temporary value of X to agent R is X’s net ability to satisfy all of R’s current preferences.</td>
</tr>
<tr>
<td>Agent: single specific</td>
<td></td>
</tr>
<tr>
<td>Preference: multiple specific</td>
<td></td>
</tr>
<tr>
<td><strong>Overall (permanent)</strong></td>
<td>Overall permanent value of X to agent R is X’s net ability to satisfy all current and future R’s preferences.</td>
</tr>
<tr>
<td>Agent: single specific</td>
<td></td>
</tr>
<tr>
<td>Preference: multiple non-specific</td>
<td></td>
</tr>
<tr>
<td><strong>Overall primary</strong></td>
<td>Overall primary value of X is X’s net ability to satisfy all of the current and future preferences of any single agent R.</td>
</tr>
<tr>
<td>Agent: single non-specific</td>
<td></td>
</tr>
<tr>
<td>Preference: multiple non-specific</td>
<td></td>
</tr>
<tr>
<td><strong>Overall primary universal</strong></td>
<td>X has primary net overall value to the extent of its net ability to satisfy all of the current and potential preferences of any single agent R (principal agent) as well as of all other numerically different agents P, whose preferences are also affected by X (dependent agents).</td>
</tr>
<tr>
<td>Agent: multiple non-specific</td>
<td></td>
</tr>
<tr>
<td>Preference: multiple non-specific</td>
<td></td>
</tr>
</tbody>
</table>
Let us first consider a case of specific value, where agent R has a specific preference $g$. In this case, it is evident that preference $g$ can be satisfied only if object X that satisfied this preference is available and hence is an opportunity to R. Thus, R’s preference $g$ can be satisfied only if R is free to undertake X. Therefore in this case, specific freedom of R’s ability to undertake X has value, since it has preference satisfaction capacity to satisfy $g$. One can try to add that freedom of R to undertake a different opportunity Y, that cannot satisfy preference $g$, will not have value in this case, as it will not have the capacity to satisfy preference $g$, and that therefore freedom is not necessarily and always valuable. However, this is not correct, because in this case we were considering specific freedom and specific value that concern one and the same preference. To claim that freedom of R to undertake Y has no value in this case to R, could be said only if we add to the scenario the proviso that not only R has preference $g$, but that in addition R does not have any other preferences that opportunity Y can satisfy. This is beyond the scopes of specific freedom and of specific value scenarios that concern only one preference and opportunity. As it will be shown further, this objection will not make freedom lack value even if the above mentioned proviso is added.

Moving forward from a case of simply specific freedom and specific value, we now need to consider overall or qualified sets of preferences and opportunities of a specific agent. It is also evident for the same reasons as above that the greater degree of freedom a person has in a condition, there greater is the preference satisfaction capacity and hence the value of this condition. Very importantly, when referring to value and freedom magnitudes here, we are referring only to conditions that are absolutely comparable. Mere magnitude of the number of different opportunities that a condition contains compared to its alternative does not make that condition more valuable that the alternative: both alternatives should be absolutely comparable, as per the charts outlines in the previous two sections.

One can still try to invoke the objection I mentioned in the previous earlier: one can claim that if R has preferences $g$, $h$, and $i$, and faces two alternative comparable
conditions, one of which has a greater degree of freedom than the other, then it is not necessarily and always the case that the condition with the greater degree of freedom will have greater preference satisfaction capacity and hence value. Assume that condition A has opportunities X, Y and Z, which satisfy preferences g, h, and i respectively and condition B has opportunities X, Y, Z and W, where W satisfies preference j. Assume now that agent R does not have that additional preference j. One can attempt to claim then, that although condition B has a greater degree of freedom than condition A, they still have equal preference satisfaction capacity and value, because agent R has only preferences g, h, and i, but not j, so the availability of W that satisfies j adds no value to condition B for R.

However, this is not the case once we consider, as we did earlier, potential and future preferences of the agent. Given that preferences of the agent can always change, even unexpectedly to the agent him or herself, the availability of additional opportunities in a condition, even if those opportunities do not satisfy any of the preferences the agent may have at a particular moment in time, adds value to the condition, as the agent may later at a different point in time form the preference which this condition provides an opportunity to satisfy. According to Carter, “[o]ur ignorance about the future gives value to specific freedoms in the present that otherwise would not have value. Those freedoms have value in virtue of our ignorance.”62 Kreps, who describes this factor as desire for future flexibility of preferences claims the following: “Consider the menus/meals example. Suppose that the individual prefers a menu containing only steak to one containing only chicken. But he strictly prefers a menu with both steak and chicken to either of the first two, because it gives him greater flexibility.”63 Although Pattanaik and Xu are defending a concept of intrinsic value of freedom, they do also admit that out of two alternatives the one with the greater range of opportunities has greater instrumental value, as the preferences of the agent many change in the future:

There may be [...] utility-based reasons why an individual may object to a reduction in his freedom of choice even when it would seem that the restriction on his freedom should not have any effect on his utility when utilities are defined in terms of his current preferences. Even if I hates smoking now, he may be worried about a ban on smoking because he cannot be sure that his preferences will never change, in the future, in favour of smoking.\textsuperscript{64}

The above might not be a good example if we are considering the specific content or value of the opportunity, in this case smoking, which we can claim based on empirical data to be a reductive opportunity. However, if we replace the opportunity of smoking with any neutral or productive opportunity, then this example illustrates the above point very well.

In addition to that, the agent may not always be certain regarding how effective particular opportunities may be in satisfying specific preferences. Thus, if we consider the above example from the perspective of the agent, it could be that the agent mistakenly thought that opportunity W does not satisfy any of the preferences that he or she may have, but upon trial he will discover that it does. As Carter explains,

\begin{quote}
\ldots an extremely important part of freedom's instrumental value is of a non-specific nature. What explains the non-specific instrumental value of freedom is the unavoidability of human ignorance and fallibility. Put crudely, an important kind of reason for our preferring the choice set offered in S2 [that has a greater range of opportunities] to that offered in S1 is that we are not sure about the values of the various options. As human beings, we are necessarily uncertain about the instrumental values of specific options.\textsuperscript{65}
\end{quote}

Now we shall proceed from overall or qualified value and freedom of a specific agent to that of non-specific agents, where by R we will refer not to a particular agent with any set of preferences, but any agent with any set of preferences. Despite, or in fact exactly because we are unaware of the agent’s preferences, as we are considering any agents

\textsuperscript{65} Carter, \textit{A Measure of Freedom}, p. 45.
with any sets of preferences, even mutually exclusive and contradictory ones, we can still clearly see that the greater degree of freedom there is in a condition, there greater is the condition’s preference satisfaction capacity. Let us consider combination IV, where we have established that alternative B has a greater degree of freedom than alternative B.

In this case by R we are referring not to a specific agent, but to any agent, hence we do not know what preferences he or she has, as it can be any set of preferences. Hence, that condition will have greater value, which can satisfy a greater range of non-specified preferences. Given that opportunities are optional, i.e. they are not imposed upon the agent, but can only be undertaken voluntarily if the agent willingly decides to do so, a greater range of opportunities present in a condition cannot in any way upset any of the preferences of the agent and reduce the value of the condition. Even if we introduce into the formula content-based value of individual opportunities (which we can do only in cases of specific agents), and assume that the additional opportunity present in alternative B is negative as it will upset the agent’s preferences, it cannot make that alternative less valuable. As Arlegi points out, “…when the person is really free to

Figure 7: Combination IV
choose an alternative from a given set, there is no reason why the addition of an inferior alternative would make the situation worse given that he or she may simply reject the new alternative." To translate it into the terms I am using, by alternative he means opportunity, and by inferior alternative we may understand him as referring to an opportunity that upsets one's preferences and has net low or negative value.

To an agent, who does not have or even will never have a preference that the additional opportunity Z in alternative B can satisfy, the presence of Z does not reduce the value and the preference satisfaction capacity of the condition. However, to an agent who does have a preference that can be satisfied by Z, but not by W, X or Y, let us call it preference g, the presence of Z makes alternative B more valuable than alternative A. Thus, whenever by R we refer to any agent, who can be either such who has preference g or such who does not have preference g, the alternative with the greater degree of freedom than the other will have greater value, as it can satisfy more preferences of more qualitatively different agents.

As an example, consider two alternatives: condition A, where signs on public transit are only written in regular letters, and condition B where, in addition to regular letters, they are also written with braille letters for someone who is blind. Provided we are considering any agent with any preference, condition B has greater value, as it can satisfy a greater range of preferences than condition A can: it can satisfy the preferences of an agent who is blind, whilst condition A cannot do that. Condition B would not restrict or limit freedom and preference satisfaction of an agent who is not blind, as he or she is not forced to learn and read braille letters: these additional lines exist only as opportunities for an agent who would voluntarily decide to undertake them (read them). Hence, alternative B grants a greater degree of freedom to any abstract agent and as a result can satisfy a greater range of preference sets.

The last and the final step is to expand the agent affected from one agent to numerically many agents. As outlined earlier, we can term as the principal agent the agent who is undertaking a particular opportunity, and as dependent agents any other numerically different agents, whose preference sets and freedom can be affect by the principal agent’s undertaking of a particular opportunity. Thus we are now considering groups of agents and the net preference satisfaction capacity that a condition has upon all of the agents it affects. In this case, for similar reasons as outlined above, out of two alternatives, the condition that provides a greater degree of freedom and can satisfy a greater range of preferences for the group of all affected agents has a greater degree of value. Thus, a set of opportunities that satisfies a greater range of preferences of all agents affected has a greater value not only primarily, but also universally. This means that if a certain condition can satisfy a range of preferences of the principal agent, but will upset preferences of other dependent agents, the value and the preference satisfaction capacity of such a condition will be significantly lower than if considered in relation to the principal agent only. Thus, for instance, whilst committing robbery may satisfy the preferences of the principal agent, it will upset a number of preferences of the dependent agents who are being robbed, hence the total net value of a condition where one can easily rob other people is lower than of an identical condition where it is harder for the principal agent to rob other people. Therefore, presence of opportunities in a condition which, when undertaken by the principal agent will upset preferences of dependent agents, will reduce the net value of such a condition.

A few words can be added as regards what Carter calls the value-based approach to measuring freedom, according to which our assessment of the net value of a condition should take into account the specific value the agent assigns to each preference and thus each opportunity available in a condition. This approach was best formulated and defended by Sen: “The evaluation of the freedom I enjoy from a certain menu must depend to a crucial extent on how I value the elements included in that menu. Any plausible axiomatic structure in the comparison of the extent of freedom would have to
take some note of the person’s preference”. This approach is in fact not completely contrary to the theory that I have defended. As explained in previous sections, we can take into account how the agent values different opportunities and preferences in a particular set, but only on the specific level. Thus if we are considering a specific agent $R$ with a specific set of preferences at a particular point in time, the net value of a condition will of course, as Sen suggests, depend on the subjective ranking and evaluation that the agent applies to different preferences and opportunities. However, once we are considering future and potential preferences, this will no longer apply. The preference that the agent ranks high at $t_1$, at $t_2$ he or she may rank differently. Hence, we cannot consider how the agent value preferences once we consider the value of freedom beyond a single point in time. Moreover, once we consider freedom of non-specific agents, that is regarding any agent, we are under complete ignorance of any specific value and ranking that a particular agent may assign to different opportunities. There is no single agent, whose subjective ranking and evaluation of preferences and opportunities we can consider.

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4 Chapter IV: Conclusion

In Chapter III I completed the tasks of defining the type of value that freedom can be proven to have, outlined the method of measuring this value and of measuring degrees of freedom and finally concluded with showing that freedom does contain this type of value, and that the degree of freedom in a condition corresponds to the degree of this type of value that it possesses. In Chapter IV, Conclusion, I will briefly summarise my method again and explain why it was essential for arriving at a concept of freedom as sets of opportunities. Finally, I will go back to the list of issues surrounding traditional theories of freedom as per Berlin’s essay and will show how the theory of freedom as sets of opportunities can address them.

As a result of the above investigation, I believe we have, first of all, answered the majority of the concerns expressed by Berlin and by MacCallum surrounding the common definitions of freedom, the concerns that stem primarily from the ambiguity and porousness of these definitions. Second of all, we have established a solid groundwork for a theory of freedom that has significant potential for elaboration and expansion and which can be used as a foundational principle for a wider political theory. Below, I will explain these conclusions from two angles: a) the conclusions resulting from the method employed in the enquiry, b) the conclusions with respect to the specific concerns raised by Berlin.

4.1 Methodology

What allowed us to achieve the two above mentioned goals, I believe, is the atomistic method of enquiry that was employed: we started with defining the most simple, singular and precise principles and axioms and then expanded these to higher levels of complexity. We did so only after carefully scrutinizing the definition of each element and
stripping and purging it of any potentially disputable or ambiguous aspects which could potentially allow for misinterpretation, manipulation and porousness of the final definition. Thus, instead of beginning with general terms that are necessarily vague, such as political freedom, social freedom, justice, fundamental principles of liberalism, etc. to shape and guide our argument from the start, we began with the simplest particles of what these greater concepts may eventually be found to consist of.

Therefore, instead of considering the idea of political freedom which is an extremely complex and broad term to start with, as it already implies multitudes of agents, relations between them, various institutions, etc., we first identified what freedom is on the simplest level, i.e. for an individual agent towards an individual object. There are two important and rather unorthodox aspects that I introduced along this path from the simplest individual level of freedom to the more complex levels.

First, I replaced the traditional concept of action as the term for that, which the agent is free to do, with the concept of the object of the action. This at once purged a widest range of disputes and ambiguities associated with the difficulties of defining and identifying specific actions. As a result, for example, instead of being free to leave the room, agent R is free to find him or herself outside the room, as it is not the action but the outcome or the object of the action which the agent aims at. This answers Berlin’s famous objection that actions cannot be counted like apples, to respond to which Carter and other proponents of measurability of freedom have tried to provide exceptionally complex and long responses. Unlike actions, objects or intended outcomes of actions can be easily identified and enumerated in most cases.

Second, I removed the concept of constraint from the definition of freedom and thus equated ability or capacity of the agent to achieve something with his or her being free to achieve that. Although it may seem to be controversial at first and to betray the very intuitive essence of freedom (to be free from constraint), it is a purely formal and logical step, and the importance of the question of the source of constraint or the source of
one’s inability to achieve something is not in any way diminished. It is only formally separated from the pure definition of freedom *per se*. The questions of the reasons and sources of unfreedom are logically distinct from the simpler strict question of whether one is free or not. This step purged a whole range of controversies and disputes, as the disputes about sources of freedom and unfreedom are thus eliminated from the definition of freedom itself and are moved into a separate, whilst not less important discussion of its own.

Once we were able to set a definition of freedom and of all its terms and elements on the simplest level, we were then able to move upwards by expanding the quantifications of each term and adding new terms to arrive at a definition of freedom on a more complex level, which is equivalent to the concept of political freedom. This inductive process is analogous to defining a chemical substance based on its simplest particles: first identifying the subatomic particles, then their combinations that form the atoms of particular chemical elements and then the molecules of the substance that these atoms constitute.

Having arrived at a definition of freedom that is sufficiently complex to account for what is commonly referred to as political freedom, we could then, and only then, identify its value. We could have not defined the value of freedom before we first arrived at a very precise definition of freedom. We could not have also defined the value of freedom before first defining value *per se*. The same atomistic approach was used in defining value: beginning with the most simple and smallest elements and then expanding it to more complex levels. Having done that, we were then able to test and see if freedom, as per the exact definition of freedom arrived, is found to have value, as per the exact definition of value arrived.

In both processes (arriving at a definition of freedom and at that of value), we had to examine carefully each smallest aspect of the definition of each smallest particle before we could advance upwards to more complex definitions. The aim was to arrive at the final conclusions of the enquiry making sure that each smallest element is very narrowly
and precisely defined, thus not leaving any room for ambiguity and porousness. A good analogy could be made with building a strip foundation of a building: if we examine each brick to make sure it has no defects and is solid and firm, the mortar to make sure it is of right composition and will hold the bricks together well, and then carefully lay each brick upon the other with utmost precision, only then can we expect the foundation to hold together and be capable to supporting a building. Not to speak that prior to even placing the first brick we would first have to carefully prepare the ground, provide the sand, gravel and a concrete foundation. If we will place the bricks on wet and uneven soil with not concrete foundation, if the proper composition of the mortar will be neglected or if some of the bricks will be defective or broken, then the foundation will erode and collapse even before a building is constructed upon it.

Thus we cannot start speaking of political freedom, value of freedom, sources of freedom or unfreedom, before we first clearly and carefully define the simplest elements that constitute these heavy and complex terms. Only then will we be able to arrive at a non-porous, solid and non-ambiguous definition that will not be vulnerable to misinterpretation and manipulation. Speaking of political freedom or of value of freedom before defining what it means exactly for an individual to be free on the simplest level is analogous to building a strip foundation without first pouring concrete in the trench, not knowing what the dimensions and the material of the bricks are and what the composition of the mortar is.

As was mentioned earlier, most enquiries regarding the value of and the methods of measuring freedom as sets of opportunities were conducted by economists, who plunge straight away into discussing how to measure freedom as opportunity sets and which types of sets will have greater value, without first defining the simplest elements and terms employed. Before discussing how to measure opportunity sets and their value, one needs to define what opportunities and what value exactly are. For the same reason, they do not differentiate between measuring freedom per se and measuring value per se (this point of confusion was emphasised by Sugden, as mentioned in the previous chapter). Identifying that something has more value than something else is not
the same as identifying that something has more freedom than something else and *vice versa*. Value and freedom are distinct concepts. Value can be a property of other things apart from freedom, and hence the method for measuring value (under a particular definition of value) should apply to measuring value of anything, not only of freedom. Conversely, the method of measuring freedom is logically distinct from the method of measuring its value, as we can have a method for measuring freedom *per se* (not its value) even before we prove that freedom has value and even if we assume hypothetically that freedom has no value.

Analogously, the concept and the method of measuring volume is distinct from those of measuring energy. Before one can claim that the more litres of milk I drink then more calories I have, I would first have to define the units of volume as litres, the units of energy as calories, and then prove that milk has calories and that the greater the volume of milk is, the greater is the amount of calories it contains. For this reason, unlike most of the articles on measuring sets of opportunities mentioned in this work that equate, without providing any proof, value with freedom and the methods of measuring value with those of measuring opportunity sets, I first defined freedom, then defined value, then defined the methods of measuring each separately, and only then proved that freedom has value and that the more freedom there is in a condition, the greater is the degree of value it contains.

### 4.2 Resolution of the problems identified in the introduction as per Berlin’s essay

We can now go back to the specific problems surrounding the traditional definitions of negative freedom which were identified by Berlin and were listed in the introduction of this work. Please refer back to the first chapter for detailed explanation of each issue: for purposes of brevity I am only including simple descriptions of each.
1) The question of value of freedom. We now have a very precise answer to this large question, to which mainly vague and broad answers were available under the more traditional concepts of freedom, including various notions of intrinsic value of freedom (such as the idea that it comes from nature, as Locke believed\textsuperscript{68}) and of instrumental value (such as the argument that it has been empirically seen to promote productivity and creativity, as Mill believed\textsuperscript{69}). The argument for freedom's value as non-specific primary instrumental value that I have defended, and which was also demonstrated by Carter, is very narrow and precise and for that reason allows for very little ambiguity and porousness. It is worth reiterating that I am not disproving or rejecting any other types of value that freedom may possibly have, I am simply not undertaking the effort to prove them, as from all existing attempts it seems that it is hardly possible to do so.

2) The question of value of freedom without the adequate conditions for its use. Given that our new definition of freedom equates freedom with ability and separates the discussion of sources of ability and inability into a logically distinct enquiry, the whole question of conditions for use of freedom is thus avoided. The very abilities that would be terms as conditions for freedom do in fact constitute freedom itself. The concepts of conditions for the use of freedom and of freedom itself are conflated: the factors of basic needs, such as health, literacy, food, etc. are thus themselves freedoms as they provide the agent with opportunities that the agent would not have had without them. Hence, a Robinson Crusoe living on an island who can barely provide for his basic needs has a very low degree of freedom, despite he may have no government or authority above him to oppress him or to constrain any of his actions. There are very few things he can do in the first place, and even if there existed an authority to constrain him, there would not be many things to constrain him from doing.

\textsuperscript{68} John Locke, \textit{The Second Treatise of Government} (The Liberal Arts Press, Inc., 1952), Chapters IV, VI.
\textsuperscript{69} Mill, “On Liberty,” Chapter III.
3) The question of what constitutes unfreedom. Since we have eliminated the discussion of the sources of unfreedom from the definition of freedom, this question is thus avoided altogether. Any inability constitutes unfreedom and any ability constitutes freedom regardless of their sources.

4) The question of whether liberty can be enjoyed at the expense of others, and consequently the question of reconciling freedom with equality and justice. The definition of freedom and that of its value which we have identified on the level that involves multiple agents provides a very clear scheme that would resolve this concern. If an opportunity that is undertaken by one agent has negative effects on other agents, namely if it deprives other agents of their freedom by reducing the ranges of opportunities available to them, then such an opportunity has low net value in relation to all affected agents. The basic principle is similar to a utilitarian calculus and allows for a great range of variations and models.

5) The question of permissible limits of coercion and of interference by the state (the extent to which one’s freedom can legitimately be curtailed in order to protect the freedom of others as well as the freedom of that one individual him or herself), and consequently where the area of private life and public authority should be drawn. The answer to this question is similar to the previous one. Any policy that involves any degree of coercion should be considered with respect to its net effect on the citizens’ opportunities. Again, a similar utilitarian-like calculus would apply, which allows for a number of different variations and models, which may, if necessary, also take into account other factors in addition to that of levels of freedom alone. Incarceration of a violent criminal, for instance, can be easily justified by our theory of freedom: although the imprisonment reduces the level of freedom of the criminal him or herself, it prevents the loss of freedom of other citizens who may otherwise fall victim of that criminal and thus have their freedom reduced by the criminal's actions. Even if the criminal himself will no
longer be able to harm anyone if free, his imprisonment will also help preserve other people’s freedom as it will deter other people from committing crimes. There will always be, of course, much more complex dilemmas, and these would be approached on individual basis using the same general principles but taking into consideration all the specific circumstances.

6) The question of the source of liberty and the source of political authority. This question is entirely avoided from the question of the definition of freedom as I have separated the discussion of the sources of freedom and unfreedom into a logically distinct discussion. At this point we can only say that since we have proven that freedom has value for all and any person, then the political system that is found to provide more freedom will be a better one than an alternative political system that provides less freedom. The question of which type of a political system is more conducive to generation and protection of freedom, whether it is a democracy where the source of authority lies in the people themselves or an absolutist monarchy where the source of authority lies in the sovereign, is entirely separate and is not part of this discussion.

Speaking of the problems that Berlin identified with the various concepts of positive liberty, it is self-evident how those are resolved with the definition of freedom we have defended in this work. This definition is so precise, narrow, measurable and strict, that it leaves no space for any ambiguous and rhetorical interpretations such as freedom being self-mastery (reduction of one’s preferences), the general will, the distinction between two selves, striving towards an ideal self, etc. Unlike all these definitions, which, as Berlin emphasises, may be used to justify tyranny and unreasonable coercion and violence, our definition has aspects that are defined very narrowly, so that they will not be able to justify excessive and unreasonable coercion and violence. If an action reduces other people’s levels of freedom to a greater extent than an alternative action or than refraining from that action, then that action cannot be
justified. Naturally, trolley-problem like situations will inevitably occasionally arise in complex circumstances, but these can be solved depending on the particular aspects and circumstances of these individual situations.
Bibliography


