

## Chapter 1

### The Scope and Structure of Welfare Economics

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## **1.1. Introduction**

Since it is generally agreed that welfare economics differs from much of the rest of economics in some crucial ways, it seems natural to include a discussion of the scope and structure of welfare economics in a book on welfare economics. Given that it is rather difficult to understand the nature of a subject without taking a plunge in the subject itself, one can perhaps make a case for placing the discussion of the scope and structure of welfare economics right at the end of this book. However, we believe that familiarity with the methodological structure of welfare economics is helpful in appreciating some of the arguments that one encounters in welfare economics. It is because of this belief that we devote this initial chapter to a discussion of the nature of welfare economics, its structure, and the modes of reasoning typically used in the subject.

The plan of this chapter is as follows. In Section 1.2, we describe the scope of welfare economics and the role of value judgments in welfare economics. In Section 1.3, we discuss some features of value judgments that are often used in welfare economics. Section 1.4 outlines the typical methods used in debates in welfare economics. Finally, Section 1.5 comments on some aspects of the role of welfare economists.

## **1.2. The scope of welfare economics**

Traditionally, economists have been engaged in three major enterprises:

(1) the explanation and prediction of economic phenomena (“Why is it that the rate of growth was so low in India in the 19<sup>th</sup> century?”, “Will there be an economic recovery in the U.S.A. in 2004?”, “What will be the effects of affirmative action?”),

(2) the evaluation and prescription of social policies or social states and the principles underlying such prescription (“What constitutes a fair allocation of a bundle of goods among a group of individuals?” “Does an increase in national income always increase social welfare?”, “Should the society adopt a policy reform if it makes everybody in the society better off?”),

(3) the description and measurement of economic and social phenomena (“How much time do women in rural India spend to fetch drinking water?”),

“Is there much inequality in Nigeria?”, “How is social mobility to be measured?”, “What is the nature of freedom that an individual enjoys in a market system?”).

Of these, (2) and, to some extent, (3) constitute the focus of welfare economics, while the rest of economics studies issue relating to (1) and (3).

The ethical evaluation and prescription of social policies and social states, and the analysis of the principles to be used in such evaluation and prescription constitute the main concerns of welfare economics. The notions of evaluation and prescription are sometimes conflated together in this context, but we would like to maintain a distinction between the two. We would use the term ‘prescription’ in the restricted sense of a recommendation that an option be chosen or rejected. Evaluative statements are not necessarily prescriptive in this sense. One makes an evaluative statement when one says that policy  $x$  is socially better than policy  $y$ . This evaluative statement has some *intuitive* implications for choice. For example, it will be odd to say that  $x$  is better than  $y$ , but, given that  $x$  and  $y$  are the only two feasible policies, the society should not choose policy  $x$ . However, despite this, the evaluative statement, “ $x$  is socially better than  $y$ ”, is not directly about social choice. Also, evaluations may be partial evaluations in which case the intuitive link between evaluation and prescription becomes even weaker. Thus, the statement, “ $x$  is better than  $y$  in terms of the criterion of justice”, is a statement reflecting partial evaluation and does not intuitively imply that the society should choose  $x$ , when  $x$  and  $y$  are the only feasible policies: after all, there may be a host of other criteria in terms of which  $y$  may be better than  $x$ . In light of these considerations, we would continue to refer to evaluation and prescription as two distinct concerns of welfare economics, but, for the sake of convenience, we shall write ‘evaluation/ prescription’.

Note that ethical evaluation/ prescription of social states and policies is not possible without the use of explicit or implicit ethical criteria. As noted by Hume as early as 1777, factual premises, by themselves, cannot lead to a prescriptive or evaluative conclusion unless somewhere we introduce some value premise. Thus, we may know that people are more educated, healthier, more affluent, more free, more secure, and so on, in social state  $x$  as compared to social state  $y$ , but these factual statements would not enable us to conclude that  $x$  is better than  $y$ , at least in some respects, unless we introduce the value judgment that it is a good thing for people to be

more educated, healthier, more affluent, more free, more secure, and so on. This value judgment may be universally accepted and may be considered too obvious to be stated explicitly. Yet it is a value judgment all the same, and, in its absence, the factual statements alone would not allow us to conclude that social state  $x$  is better than the social state  $y$ . The notion of a value-free or ‘scientific’ welfare economics seems to go counter to the very basic evaluative and prescriptive concerns of welfare economics. Given that welfare economics is concerned with the evaluation/ prescription of social states and policies, it is not surprising that the language of welfare economics is the language of morals as applied to social and economic phenomena. However, what is important here is not the use of prescriptive or evaluative language as such but the purpose underlying the use of such language<sup>1</sup>. The use of evaluative/ prescriptive language simply reflects the central purpose of welfare economics, namely, the evaluation and prescription of social states and policies. Strictly speaking, the theory of welfare economics is not so much concerned with the evaluation or prescription of specific social policies or social states as with the ethical principles or criteria that underlie such evaluation or prescription (it may, however, be noted that more applied branches of welfare economics, such as cost-benefit analysis, are often concerned with the evaluation of specific social states and policies).

Welfare economists have also been concerned with the definition, description, and measurement of economic and social phenomena. Their objective here is to clarify or measure certain aspects that are closely linked to our intuition about social welfare. Most people’s intuition about social welfare involves considerations such as the degree of inequality and poverty in the society and the extent of rights, freedom and, opportunity that people enjoy. It is, therefore, only natural that welfare economists have been interested in the intuitive content of all these concepts and related issues of measurement. Note that many of these concepts have considerable descriptive content as well as evaluative content. When we say that individuals in a society enjoy the right to practice the religion of their choice, we may or may not be commending the society, but we are certainly describing a certain state of affairs. What do people mean when they say that an

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<sup>1</sup> See Little (1960) about the importance and significance of evaluative/ prescriptive language in welfare economics.

individual enjoys certain rights? Can freedom be measured by just counting the number of options? How does one measure inequality or deprivation? These are some of the issues which welfare economists have explored in the last three decades or so. While these issues, by themselves, do not necessarily involve prescription or evaluation, they are all closely linked to the objective of prescribing/ evaluating social states and policies. Unless one is clear about what rights, freedom, and opportunity mean, one can hardly determine how much weight these considerations should have in the evaluation of alternative states of affairs in a society.

### **1.3. The nature of value judgments used in welfare economics**

Value judgments can be of various types. For example, we can have aesthetic value judgments (e.g. “A terse style is a virtue in writing essays.”) or ethical judgments. Ethical judgments, in their turn, may involve evaluations or prescriptions with respect to individual conducts, actions and personalities (“Selfishness is an awful flaw in a person’s character.”); alternatively, they may involve evaluation/ prescription of social states or policies. By the nature of welfare economics, it deals with ethical judgments of this latter type; ethical judgments relating to the conduct and actions of individuals do not normally come within the purview of welfare economics.

Like all ethical judgments, ethical judgments involving social states involve prescription/ evaluation. Such prescription/ evaluation may come in the form of a general or ‘universal’ principle (“A reduction in inequality is always better for the society.”) or in the form of prescription/ evaluation of specific social states (“The society in India is better off in 2003 than in 1983.”). Even when the prescription/ evaluation refers to very specific social states, such prescription/ evaluation is based on explicit or implicit reasons which embody general ethical principles. Thus, if we say that social state  $x$  is socially better than social state  $y$ , we acquire an obligation to give reasons for our ethical evaluation in case we are asked to do so, and, as soon as we give these reasons, say,  $?_1, \dots, ?_r$ , we commit ourselves to a general principle, namely the principle that, for all social states  $x'$  and  $y'$ ,  $x'$  is better than  $y'$  if the reasons,  $?_1, \dots, ?_r$  hold in an analogous fashion. Similarly, when we say that a social state  $x$  is just or fair, there must be reasons for saying that, and giving these reasons commits us to considering any social state  $x'$

just or fair if similar reasons hold. It will be strange if we say that the state of affairs  $x$  is just because  $x$  has certain features but another state of affairs  $x'$  is not just, though it has exactly the same features. Thus, even when an ethical judgment is about specific social states, it has this feature of ‘universalizability’ (see Hare ( 1963, 1964)): underlying it there are general or universal principles that constitute the justification for the ethical judgment regarding those specific social states. Of course, as we have already noted, an ethical judgment may have the form of a general principle right from the start..

While, like all value judgments, ethical judgments relating to social states or policies involve explicit or implicit general principles for ethical prescription/ evaluation, they can take a variety of forms. We note below certain distinctions, which are relevant for our discussion later in this book.

(1) *The prescription/ evaluation of social states as distinct from the prescription/ evaluation of social policies*: First, note that the social options or alternatives may be either social policies or social states, a social state being a complete description of all the features of the state of affairs prevailing in the society (sometimes social states are described by specifying only some but not all of these features; in such cases, the remaining features are typically assumed to be fixed and known) . Thus, one may be concerned with the evaluation of social policies such as anti-trust laws, the control of the sale and use of addictive drugs, and so on. Alternatively, one may be concerned with the evaluation of social states or states of affairs in the society, such as alternative distributions of the final bundle of goods produced in the society. Of course, if every social policy leads to a unique social state, so that there is no uncertainty about the consequences of a social policy, and, if social policies are to be judged only by the social states that result from these policies, then the distinction between the evaluation/prescription of social policies and that of social states would not have much substance. Under these conditions, the evaluation/ prescription of social policy would induce an evaluation/ prescription of a social state, and vice versa. However, there may be uncertainty about the outcomes of social policies in which case the same social policy may lead to different outcomes depending on the “state of nature”. In that case, the evaluation/prescription of social policies cannot be held to be basically identical to the evaluation/ prescription of social states. The equivalence breaks down in much the same

way as the equivalence between the ranking of individual actions and the outcomes of these actions breaks down in the presence of uncertainty. Even in the absence of uncertainty, it is possible to argue that a social policy should not be judged only by its outcome (we return to this theme in Chapter ??????? ). Then there will again be a wedge between the equivalence between the evaluation/ prescription of social policies and the evaluation/ prescription of social states.

(2) *Overall evaluations / prescriptions and partial evaluations / prescriptions:* The ethical evaluation of social alternatives may be an overall evaluation (“social state  $x$  is better than social state  $y$ ” or “ $x$  is what the society should choose from the given the feasible set of alternatives”) or it may be a partial evaluation (“social state  $x$  is more just than social state  $y$ ” or “given the feasible set,  $A$ , of social states, fairness requires that the society should choose  $x$ ”). An overall evaluation, such as “ $x$  is socially better than  $y$ ”, is a complete ethical assessment of the social options  $x$  and  $y$  on the basis of whatever criteria may be considered relevant by the author of the judgment. In contrast, a partial evaluation usually refers to an assessment of social options in terms of a specific criterion or a proper subset of the set of relevant criteria. Saying that  $x$  is a more just state of affairs than  $y$  is a partial evaluation that does not necessarily commit one to the overall evaluation that  $x$  is better than  $y$ ; since there may be criteria other than justice, in terms of which  $y$  may be superior to  $x$  and these other considerations may outweigh the superiority of  $x$  in terms of the criterion of justice<sup>2</sup>.

(3) *Evaluation/ prescription of social alternatives and evaluation/ prescription of mechanisms for reaching social decisions on the basis of individual judgments regarding social alternatives :* Finally, we come to a distinction that is of considerable importance in interpreting many formal theorems in welfare economics. This is the distinction between: (i) the value judgments of an individual,  $i$ , which reflect  $i$ 's ethical evaluation/ prescription of the social states or policies; and (ii)  $i$ 's value judgments relating to alternative decision making mechanisms that the society can use to aggregate the different individuals' judgments/ opinions regarding social states or policies so as to reach a social decision (see Little (1952), Bergson (1954), Arrow (1963), Sen (1967,

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<sup>2</sup> See Sen's (1967) distinction between 'compulsive' and 'non-compulsive' value judgements.

1970), and Broome (????)). An example may help to clarify the distinction. Consider a society that has to choose between two social policies,  $x$  and  $y$ . Suppose an individual,  $i$ , believes that policy  $x$  is socially better than policy  $y$ , and has her own ethical justifications for this ethical judgment. However, most individuals in the society believe that  $y$  is *better than*  $x$  for the society. Since the society has to choose exactly one of the two alternatives,  $x$  and  $y$ , how should the society decide what to choose? Suppose everybody in the society, including  $i$ , believes that the best way of reaching a decision in a situation of conflicting opinions is to go by the opinion of the majority of individuals. Since the majority believes that  $y$  is socially better than  $x$ , and everybody believes that the society should go by the majority opinion, everybody, including  $i$  would end up by saying that the society should choose  $x$ .

The scenario just described may seem somewhat paradoxical. So far as the social states are concerned,  $i$ 's own value judgment is that  $x$  socially better than  $y$ . Yet, she is also believes that that the society should base its decision on the majority opinion and this leads her to accept the social choice of  $x$  rather than  $y$ . Does this imply that the individual is involved in an ethical contradiction? Alternatively, does this imply that, faced with the opinion of the majority that differs from her own value judgment,  $i$  abandons her own value judgment and subscribes to the majority's opinion. Finally, does it mean that her acceptance of the majority principle is just a tactical gesture without any basis in her values? We argue that none of this needs to be true, and the two value judgments simply belong to two different levels of discourse and can coexist together.

Consider first a line of reasoning that goes back to Condorcet (1785) (see Young (1988, 1997) for a lucid restatement of Condorcet's analysis). Suppose all individuals share the same social objectives and values, and suppose one of the two policies,  $x$  and  $y$ , is 'truly' better than the other in the sense of promoting these shared objectives to a greater extent. However, no individual knows exactly which of the policies is truly better. So, while an individual may hold that one of the policies is better than the other, there is some probability that he may be wrong. Under certain assumptions, Condorcet demonstrated that going by the opinion of the majority maximizes the probability of choosing the truly better policy. Thus,  $i$  may hold that policy  $x$  is socially better than policy  $y$ , but she is not sure about the correctness of her judgment. Therefore, to



maximize the probability of the society's choosing the truly better policy, he agrees to go by the majority principle. While the majority principle was the focus of Condorcet's analysis, for our purpose the argument is general enough. While an individual has her own judgment about alternative social policies, she is also aware that her judgment is fallible, and, therefore, she may feel that the probability of the society's taking a decision that is 'right' in terms of the shared objectives will be maximized if the society follows a certain decision procedure.

We take a somewhat stronger position. We feel that, even when an individual is confident about her own evaluative/ prescriptive judgments regarding social policies or social states, there is no deep contradiction involved in her saying that she continues to believe that  $x$  is socially better than  $y$ , but, at the same time, given that all other people feel differently, she believes that the society should choose  $y$  rather than  $x$ . An individual's ethical evaluation/ prescription of social states reflects her own value judgment about which social state or policy is good for the society. At the same time, if the society is to exist as a society, there must be some decision procedure to arrive at social choices on the basis of (possibly conflicting) individual opinions, and the individual may attach a greater intrinsic value to some decision procedures (e.g., the majority rule) as compared to other decision procedures. Thus, the individual may find herself saying that  $x$  is socially better than  $y$ , but, given that other people do not agree, the society ought to choose  $y$ . This, however, implies that an individual may have two distinct types of value judgments that has relevance for the process of social choice.. First, we have the value judgments that reflect the individual's evaluation/ prescription of social alternatives. Secondly, we have the individual's value judgments about the decision procedure that the society should adopt to take decisions on the basis of people's opinions regarding the social alternatives. The distinction between an individual's evaluation/ prescription of social states and her value judgments about the procedure that the society should adopt to reach a decision on the basis of the individuals' judgments or opinions is conceptually important: we shall later argue that the type of considerations that arise in debates about the second type of value judgments can be very different from those that arise in debates about the first type of value judgments.

The distinction is also important in understanding the nature of the liberal democratic decision-making in practice. In this context, we would like to distinguish between two distinct phases, the phase of *deliberation* and the phase of *aggregation*, in an idealized version of the decision-making process in a liberal democracy. In the phase of deliberation, which comes first, the citizens express their ethical evaluations/prescriptions of social options. An ethical debate naturally arises if their evaluations/prescriptions differ. In this debate, an individual gives reasons to justify their own value judgments and engage in value criticisms of the evaluations/prescriptions of people who differ from her. As a result of this process, some individuals may modify their initial ethical positions. The debate may have the effect of narrowing the gaps between the individuals' ethical positions; such gaps may also widen as a result of the debate. However, the debate about each other's value judgments cannot continue indefinitely. Since the society has to take a decision, the phase of deliberation finally comes to an end and is succeeded by what we have called the phase of aggregation. In this second stage, there is no further value debates about the citizen's evaluation/prescription of social options. Instead, the citizens' evaluations/prescriptions as they emerge at the end of the phase of deliberation are taken as given, and the task in this stage is how to aggregate these evaluations/prescriptions to reach a decision in the society. In real life, the democratic decision-making process may differ from the idealized version that we have just sketched. In real life, the opinions that are aggregated by the decision procedure in the second stage may not represent the individuals' ethical evaluation of the social options. Again, in real life the discussion or debate in the first stage may not be about welfare evaluations/prescriptions; instead it may take the form of self-interested bargaining. However, one can view the two phases of democratic decision-making as a conception of what democratic decision-making should ideally be, and, at least in some cases, the reality corresponds to this ideal vision of democracy.

The recent literature on 'deliberative democracy'<sup>3</sup> has emphasized the distinction between the two phases mentioned earlier, the first phase being really the deliberation part of deliberative democracy. The analysis and criticism of an individual's ethical

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<sup>3</sup> For illuminating discussions of the notion of deliberative democracy, see Habermas (1984, 1987, 1996), Bohman (1996), and Elster (1998).

judgments about social alternatives corresponds to this first phase. In contrast, the analysis of the ethical desirability of different procedures for aggregating the individuals' given preferences, opinions or judgments so as to arrive at social decisions is really an exercise relating to the second phase.

Leading welfare economists have sometimes identified welfare economics with only one of these two phases of decision-making in a democracy. For example, Little (1952) claimed that the analysis of individual evaluation/prescription of social alternatives and value criticisms of such evaluations/ prescriptions constitutes the sole function of welfare economics and that the corresponding analysis of value judgments relating to social decision mechanisms for aggregating given individual opinions or value judgments is outside the realm of welfare economics. As Bergson (1954) put the same point, the business of welfare economics is to counsel individual citizens on the basis of values pertinent for that individual, rather than to counsel the public official who only seeks to implement the citizen's values as given by a collective decision rule. Arrow (1963) took exactly the opposite point of view. He argued that, since welfare economists should ultimately be concerned with social action and since no single individual's evaluations/ prescription of social; states determines social action, welfare judgments of any single person is not an appropriate subject of study in welfare economics. Instead, welfare economics should really focus on the study of how social action is decided on the basis of the judgments or opinions of the individuals in the society:

“Social welfare” is related to social policy in any sensible interpretation; the welfare judgments formed by any single individual are unconnected with action and, therefore, sterile.

(Arrow, 1963, p.106)

At the risk of some simplification, one can summarize as follows the main difference between Arrow's vision of welfare economics and that of Little and Bergson. For Arrow, the primary concern of welfare economics is the analysis of value judgments relating to the aggregation procedure to be used in the second phase of the democratic decision-making process, where the individuals' preferences/ opinions are assumed to be given and the only task is that of aggregating these preferences/ opinions to arrive at a social

decision. In contrast, as Little and Bergson see welfare economics, welfare economists should confine themselves to value criticisms of the type that takes place in the earlier phase of deliberation<sup>4</sup>.

Each of the two standpoints represents ethical concerns with one specific phase in a society's progress towards the final social action. However, both the phases would seem to be equally important, and the analysis of value judgments and value criticism can play a significant role in each of these phases. Therefore, to restrict welfare economics to the study of either of these two types of value judgments would seem to be unnecessarily restrictive and arbitrary. It is not, therefore, surprising that many welfare economists have not imposed any such restriction on their subject. At the same time, it is important not to blur the difference between individual welfare evaluations/ prescription of social states and value judgments relating to procedures for aggregating people's opinions and judgments. Later on (see Chapter ???), we shall argue that the nature of value criticism can be different as between these two cases.

#### **1.4. The mode of reasoning in welfare economics**

##### *1.4.1. The mode of reasoning about value judgments*

If, as we have argued, the basic concern of welfare economics is the analysis of value judgments involving the evaluation / prescription of social alternatives and value judgments relating to social decision procedures, how do welfare economists reason about such value judgments? Since value judgments are prescriptive by nature, it may seem that they simply reflect people's likes and dislikes, and are not, therefore, susceptible to systematic reasoning<sup>5</sup>. If this were indeed the case, then it would hardly be

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<sup>4</sup> Little himself seems to have seen his difference with Arrow in these terms. Little sees the preference orderings that Arrow takes as given inputs for the aggregation process as the 'deadlock' orders reached after "all persuasion has been used and after an infinite number of straw votes" (see Little, 1952, p. 146). He also argues that, in contrast to Arrow, he is concerned with value judgments that represent the individuals' ethical evaluations of social states and that are intended to influence other individuals' values and behaviour.

<sup>5</sup> One recalls the well-known statement of Robbins (1932, p. 135): "If we disagree about ends it is a case of thy blood or mine – or live and let live according to the importance of the difference, or the relative strength of the opponents".

possible to identify a logical and coherent structure for the arguments that take place in welfare economics. This, however, would seem to be an extreme position.

The mode of argument about a system of value judgments is substantially different from the mode of testing an empirical theory. Nevertheless, there is a coherent framework in which such arguments take place. Indeed, there is a considerable degree of formal similarity between this framework and the way in which one goes about testing an empirical theory. Consider the procedure outlined in Popper (1959) classical contribution on the testing of scientific propositions. According to Popper (1959, pp.32-33), tests of empirical theories involve three distinct steps. First, one checks the internal consistency of the various conclusions of the theory. An empirical theory is seriously flawed if it yields inconsistent conclusions, such as, “For all  $x$ , if  $x$  belongs to the class  $X$ , then  $x$  must also belong to the class  $Y$ .” and “There exists  $x$  in the class  $X$  such that  $x$  does not belong to the class  $Y$ ”. In the second and most crucial step, one tests the conclusions of the empirical theory against facts. The conclusions of empirical theories are embodied in either universal propositions (“In all cases, a fall in the price of a commodity leads the consumer to buy more of the commodity, if all other prices and the consumer’s income remain unchanged.”), which are falsifiable, or existential propositions (“Sometimes, people work less with an increase in the wage rate.”), which are verifiable. The mode of testing falsifiable universal propositions is of particular interest in our context. Given a falsifiable universal proposition

$$\text{for all } x \text{ in the class } X, x \text{ has the property } r, \quad (1.1)$$

how do we check whether the proposition is consistent with facts? The procedure identified by Popper has the following formal structure. One takes a specific member, say,  $a$ , of the class  $X$ . Then, we have the proposition

$$a \text{ belongs to the class } X. \quad (1.2)$$

Given propositions (1.1) and (1.2), it follows that

$$a \text{ has the property } r. \quad (1.3)$$

One then checks whether  $a$  has the property  $r$ . If  $a$  does, indeed, have the property  $r$ , then one proceeds to consider a different member,  $b$ , of the class  $X$ . If, as is often the case,  $X$  happens to be an infinite class, then one cannot possibly verify that each member of  $X$  has the property  $r$ . All that one can do is to check for as large a number of members of  $X$  as

one can. If all these members actually observed have the property  $r$ , then the original hypothesis represented by statement (1.1) is considered 'confirmed' as far one's experience goes, but it is always possible that in the future it may get falsified because some future observations may show that some members of  $X$  do not have the property  $r$ .

If an empirical theory successfully goes through these first two steps, namely, if one cannot find any internal inconsistency in the theory and if its conclusions are confirmed by the observation of facts, then one proceeds to compare it with other competing theories that have also gone successfully through the same two steps. Comparison of two theories both of which fulfill the first two tests of Popper can be a complex problem. However, a useful preliminary rule is the following. Suppose  $A$  and  $B$  are two such competing empirical theories.  $A$  is a better theory than  $B$  if either the assumptions of  $A$  are weaker than the assumptions of  $B$  and the conclusions of  $A$  are at least as general as the conclusions of  $B$  or the assumptions of  $A$  are no stronger than the assumptions of  $B$  and the conclusions of  $A$  are stronger than the conclusions of  $B$ .

Now consider the structure of theoretical systems in welfare economics. Such a theoretical system will typically have value judgments for its conclusions and value judgments among its premises (sometimes, however, the 'theoretical system' may introduce only one value judgment embodying a criterion for increase in social welfare; in such a case, we treat this value judgment as a value premise waiting to be used for deriving prescriptive/ evaluative conclusions). In addition to value premises, the theory may also have empirical statements among its premises. In questioning the theory, one can question: (i) the factual premises or (ii) the ethical premises, or (iii) the ethical conclusions. The mode of arguments about such factual premises will follow the line outlined above. Take the following piece of reasoning.

Economic liberalization in India will lead to a sharp increase in inequality without contributing much to the growth of national income. (1.4)

A sharp rise in inequality without significant gain in terms of growth is socially undesirable. (1.5)

Therefore, economic liberalization is socially undesirable for India. (1.6)

Of the two premises, it is the factual premise, (1.4), rather than the value premise, (1.5), about which there is likely to be strong disagreement. Irrespective of whether one accepts the conclusion, (1.6), one may like to question the factual premise, (1.4). In fact, people often differ in their evaluation/ prescription of social policies or states, not because of differences in their values but because of differences in their beliefs about the world and how it functions. When such differences about facts arise, the argument follows the pattern of debates about empirical theories.

The mode of reasoning about ethical judgments involved in welfare economics either as premises or as conclusions is different from the mode of testing empirical hypotheses, but it has a formal similarity to Popper's procedure for testing empirical theories that we have outlined above. Suppose value judgments,  $V_1, \dots,$  and  $V_t$  figure in an ethical theory as premises or conclusions. One can subject this set of value judgments to the test of internal consistency. If one can deduce inconsistent ethical conclusions (e.g., " $x$  is socially no worse than  $y$  and  $y$  is better than  $x$ " and "Social state  $x$  is more just than social state  $y$  and social state  $y$  is more just than  $x$ ") from  $V_1, \dots,$  and  $V_t$ , then the theory under consideration would fail in terms of the rather elementary test of internal consistency. Such inconsistent theories are not unknown in welfare economics (see Chapter 2 for a discussion of the famous Kaldor-Hicks criterion for the improvement of social welfare, which is internally inconsistent).

Internal consistency is, however, a minimal test for a system of value judgments. One needs to go beyond it. Since value judgments are not statements about facts, they cannot possibly be subjected to the test of conformity to facts that one applies to empirical theories. Instead, the relevant criterion is whether the value judgment is acceptable. While the issue of acceptability of a value judgment is fundamentally different from the issue of conformity to facts of a falsifiable empirical statement, there is, nevertheless, some similarity between the procedures used in the two cases. How does one judge the acceptability of a set of value judgments in welfare economics? Such value judgment may lay down some general principle or criterion for the evaluation/ prescription of social options. Examples of such value judgments are

For all social alternatives  $x$  and  $y$ ,  $x$  is socially better than  $y$  if

conditions  $?_1, \dots, ?_m$  hold. (1.7)

For every set,  $A$ , of feasible social alternatives and every  $x$  in  $A$ , the society should choose  $x$  from  $A$  if conditions  $?_1, \dots, ?_m$  hold. (1.8)

If conditions  $?_1, \dots, ?_m$  hold, then social state  $x$  is more just than the social state  $y$ . (1.9)

Alternatively, the value judgment may not involve any explicit general principle for evaluation/ prescription of social states; instead, it may involve the evaluation/ prescription of specific social options (this is, however, rather rare in the theory of welfare economics). For example, the value judgment may simply be that  $x^?$  is socially better than  $y^?$  where  $x^?$  and  $y^?$  happen to be specific social states. However, as we noted earlier, there must be some reason for saying that  $x^?$  is socially better than  $y^?$ . Once these reasons are made explicit, we have a general principle such as (1.7). Thus, every value judgment involved in welfare economics either explicitly lays down general principles for the evaluation/ prescription of social states or has implicit in the background such general principles, which can be brought to the open with a suitable question (“Why is the specific social state  $x^?$  better than the specific social state  $y^?$ ?”) which the author of the value judgment has an obligation to answer if she wants his value judgment to be taken seriously. Consider a set of general ethical principle. Suppose someone wants to argue that all or some members of the set are unacceptable. One way of doing this is to take the doubtful ethical principles under consideration and to deduce ethical conclusions from them, which one believes would be unacceptable to the author of the value judgments. This can be done by finding actual or hypothetical specific social states  $x^*$  and  $y^*$  such that conditions  $a_1, \dots, a_m$  hold with respect to  $x^*$  and  $y^*$ , but, given certain other features of  $x^*$  and  $y^*$ , one would not be willing to say that  $x^*$  is socially better than  $y^*$ . Consider, for example, the following statement

For all social states  $x$  and  $y$ ,  $x$  is socially better than  $y$  if the income is distributed more equally (in some specified sense of the notion of equality) in  $x$  as compared to  $y$ . (1.10)

Suppose one wants to argue against (1.10). One way of doing so would be to find or imagine social states  $x^*$  and  $y^*$  such that income is more equally distributed in  $x^*$  as



compared to  $y^*$ , but those who benefit from the switch from  $y^*$  and  $x^*$  benefit very marginally, while those who lose by the switch lose enormously. If the author of (1.10) is unwilling to accept that  $x^*$  is socially better than  $y^*$ , then he has to reject his original value judgment (1.10). The structure of the argument is then as follows. One takes (1.10) and combines it with the following statement

Suppose  $x^*$  and  $y^*$  are specific social states such that income is more equally distributed in  $x^*$  as compared to  $y^*$ , but those who benefit from the switch from  $y^*$  and  $x^*$  benefit very marginally while those who lose by the switch lose enormously. (1.11)

From (1.10) and (1.11), one deduces the conclusion that

$x^*$  is socially better than  $y^*$ . (1.12))

If (1.12) is unacceptable to the author of (1.10), then she has to modify or reject (1.10).

For example, she may modify (1.10) to (1.13) below:

For all social states  $x$  and  $y$ ,  $x$  is socially better than  $y$  if the income is distributed more equally (in some specified sense of the notion of equality) in  $x$  as compared to  $y$ , and it is not the case that those who benefit from the switch from  $y^*$  and  $x^*$  benefit very marginally while those who lose by the switch lose enormously. (1.13)

The importance of this modification will depend on the importance of the counterexample embodied by (1.11). If the additional feature of social states  $x^*$  and  $y^*$  specified in (1.12) (namely, the feature that those who benefit by the switch from  $x^*$  to  $y^*$  benefit very marginally while those who lose by the switch suffer a very large loss) represents just a logical possibility but is highly unlikely in real life, then the author of (1.10) can replace (1.10) by value judgment (1.13) but point out that the modification is of little consequence. On the other hand, if the additional feature of social states  $x^*$  and  $y^*$  postulated in (1.11) is fairly common (i.e., it often happens that a more equal redistribution harms the losers enormously while benefitting the gainers only marginally), then the replacement of (1.10) by (1.13) would imply a significant departure from (1.10) (See Sen (1967, 1970)).

Suppose (1.12) is acceptable to the author of (1.10). Then the person arguing against (1.10) has to start with another actual or hypothetical instance (or class of

instances), deduce another conclusion and see whether the author of (1.10) can accept it. Thus, the attempt to check the acceptability or unacceptability of (1.10) continues. Even if many such conclusions drawn from (1.10) are found acceptable to the person who advanced the value judgment (1.10), there is always the possibility that, at a later stage, some conclusion derived in this fashion would be found unacceptable, in which case the person concerned would either give up value judgment (1.10) or modify it suitably. The formal similarity between this procedure and the procedure for falsification of universal empirical propositions that we discussed earlier is obvious. There is, however, a fundamental difference between the two procedures. In the case of empirical propositions, it is the facts that decide whether the proposition is false, while the acceptability/ unacceptability of the conclusions derived from the initial value judgment with the help of additional empirical propositions is ultimately a matter of subjective judgment.

There are also other ways of questioning the acceptability of a system of value judgments without posing counterexamples of the type outlined earlier. One can take several value judgments figuring in an ethical theory, and, without necessarily introducing actual or hypothetical factual situations, deduce from those value judgments an ethical conclusion that the author of the theory may be unable to accept. Consider one particular form that such an exercise may take. Given the value judgments,  $V_1, \dots, V_t$ , figuring in the theory, one may be able to deduce some consequence  $V_*$  of  $V_1, \dots, V_t$ , such that  $V_*$  is incompatible with some very plausible value judgments  $V_1', \dots, V_r'$ . If the author of  $V_1, \dots, V_t$  really finds all of  $V_1', \dots, V_r'$  appealing, then she needs to go back to  $V_1, \dots, V_t$ , reexamine those value judgments, and discard or modify some of them so as to remove the problem of incompatibility with  $V_1', \dots, V_r'$ .

Suppose, instead of seeking to criticize value judgment,  $V$ , one wants to defend it against criticism. One of doing so will be to derive  $V$  from prior, more primitive value judgments, say,  $V_1, \dots, V_k$ , which the critic of  $V$  finds acceptable. In this case, if the critic of  $V$  refuses to accept the value judgment  $V$ , i.e., if he accepts  $\text{not}(V)$ , then he would have to reject or modify at least one of the value judgments,  $V_1, \dots, V_k$ . Thus,

this method of defending  $V$  really amounts to criticizing  $\text{not}(V)$  by showing that  $\text{not}(V)$  is not compatible with the plausible value judgments,  $V_1, \dots$ , and  $V_k$ , taken together.

Finally, suppose there are two different ethical theories, say, A and B, seeking to provide overall evaluation/ prescription of social options or partial evaluations/ prescription of similar types (for example, the partial evaluation may be a justice ranking of social options). Further suppose both of them are internally consistent and acceptable as far as one can see. Then how does one discriminate between the two theories? An elementary criterion that one can think of takes into account two aspects. First, one has to compare the two sets of ethical premises involved in the two theories. Secondly, one has to consider the scope of the conclusions. Other things remaining the same, if theory A uses ethical premises, which together, are weaker than the ethical premises in theory B, taken together, then A is a better theory since the weaker value premises will be more widely acceptable. Similarly, other things remaining the same, if the conclusion of theory A allows us to evaluate a wider range of social states or to make ethical prescriptions in a wider range of cases, as compared to theory B, then theory A is a superior theory. After all, the purpose of ethical theories is to provide principles for the evaluation/ prescription of social states; and, clearly, this purpose is served better the wider the domain over which such evaluation or prescription can be made. Unfortunately, the two criteria, namely, the weakness of ethical premises and the extent of the domain of evaluation/ prescription do not always move in harmony. Weaker ethical premises often result in a more limited range of ethical evaluation/ prescription and a wider scope of evaluation/ prescription can often be secured only by the use of stronger ethical premises (see our discussion of the Pareto principle in Chapter 2).

#### 1.4.2. *Reasoning about measures and concepts*

We have noted earlier that, though the evaluation/ prescription of social alternatives is the primary concern of welfare economics, welfare economists have also been interested in non-evaluative and non-prescriptive analyses that are intimately connected with the enterprise of evaluation and prescription of social states. For example, welfare economists have devoted much time and energy to analyzing the structure of individual rights (“What does it mean to say that an individual has a right?”),

the measurement of individual freedom, the measurement of an individual's standard of living ("Is the consumption bundle of an individual an appropriate indicator of her standard of living?"), the measurement of inequality and poverty, and so on. These are not ethical issues relating to the evaluation of social states. Rather they are issues relating to the exact content of certain intuitive concepts that figure in discussions of social welfare and social choice.

It is important to note that the welfare economist's definitions of concepts such as the rights of an individual or an individual's standard of living differ in some important ways from definitions that one encounters in mathematics. When we define a term in mathematics, the term is basically a shorthand for a longer expression; the term does not have any independent status apart from the meaning that the definition assigns to it (Popper (1962) calls such definitions *nominalistic* definitions and distinguishes them from *essentialistic* definitions, which seek to capture the intuitive content of a term ). In contrast, when the welfare economist or the political philosopher tries to define concepts such as the concepts of rights and the standard of living or when the welfare economist seeks to measure freedom, he does not provide just a shorthand for a long expression. The concepts involved here have an independent existence of their own in our intuition. What the welfare economist is trying to do here is to capture the 'essential' intuitive content of these independently existing concepts in terms of her formal definition/ model/measure (adapting Popper's (1962) terminology, one can say that what the welfare economist is aiming at here is an *essentialistic formulation* of the concept under consideration ). An essentialistic formulation may aim to be comprehensive or it may be deliberately non-comprehensive. For example, one may lay down conditions which one claims to be necessary for an individual to have a right. This would be a non-comprehensive essentialistic formulation insofar as, in trying to articulate the notion of individual rights, one is seeking to identify only one part of what one means by an individual's having a right. On the other hand, one may seek to build a more comprehensive model where one seeks to provide, as it were, all the things that one means when one says that an individual has a right. Similarly, an analytical framework may give only a sufficient condition for concluding that the freedom of an individual has increased without necessarily claiming that it is also a necessary condition. Alternatively,

one may have more ambitious measures which seek to give necessary and sufficient conditions for being able to say that an individual's freedom has increased.

The question arises how one argues for or against an essentialistic formulation (definition/ measure/model) of a concept. The method is similar to arguing for or against value judgments. It may be helpful to give a few examples. To argue against an essentialistic formulation of freedom, one may like to deduce a conclusion from it that the author of the formulation will be unable to accept and will, therefore, be compelled to abandon the original formulation. For example, suppose someone says that the agent's freedom necessarily increases if additional options become available to her without any of the original options dropping out (in our terminology, this is a non-comprehensive essentialistic formulation). One can then construct a specific counterexample where the additional option would be considered worthless by all reasonable people. A rotten orange added to a basket of very nice fruits would be such a counter-example. If the author of the original essentialistic formulation cannot accept the conclusion that the addition of the rotten orange to the existing basket of fruits increases the agent's freedom, she will have to modify his formulation (as we will see in Chapter ?????, this is how Sen (?????) argued against an essentialistic formulation of freedom by Pattanaik and Xu (1990)); . What if she is prepared to accept this conclusion? Then one can proceed to construct some other counter-example. Similarly, suppose an essentialistic formulation of individual rights lays down a necessary condition for an individual to have a right. Then, in arguing against it, one can try to construct a counter-example where the necessary condition is violated but one may be reluctant to say that anybody's right is violated (see Chapter ??? for an example of such an argument). Concrete counterexamples are, however, not the only way of arguing against a formulation. A demonstration that the formulation contradicts certain other conditions which are plausible in the sense of reflecting some aspects of the intuitive content of the concept is also an effective argument against the formulation. On the other hand, an essentialistic formulation can be justified by deriving it from prior plausible conditions, which, of course, amounts to arguing that anybody who rejects the formulation will contradict one or more of these prior plausible conditions. The structure of the reasoning here is formally similar to the structure of arguments in the case of value judgments. In the case

of a system of value judgments, the crucial question is that of acceptability of the ethical implications of the system. Analogously, in the case of an essentialistic formulation of a concept, the central issue is whether the implications of the formulation are consistent with our intuition about the concept. Of course, there may not be any easy way to establish whether the implications of an essentialistic formulation of a concept are consistent with one's intuition. This is because our intuition about complex concepts, such as the concept of rights, freedom, opportunity, etc., are often ambiguous. Also, people may differ in their intuition. Individual *i* can point out certain implications of a particular formulation, say  $\phi$ , of freedom, and *i* may believe these implications to be inconsistent with the intuitive content of the notion of freedom. Yet, *j*, the author of formulation  $\phi$ , may find it perfectly consistent with his intuitive notion of freedom. In that case, all that *i* can do is to deduce some other implication of  $\phi$  and confront *j* with it. This is again similar to the case of value judgments: no matter how many implications of formulation  $\phi$ , the author of  $\phi$  may have already found to be consistent with her own intuition, there is always the possibility that she may find some new implication of  $\phi$  inconsistent with her intuition.

### **1.5. The source of value judgments and the role of the welfare economist**

Given that value judgments are essential for welfare economics, the question naturally arises where these value judgments come from. Whose value judgments should the welfare economist use? Consider Samuelson's (1947, p.221) answer to this question:

“Without enquiring into its origin, we take as a starting point for our discussion ... some ethical belief – that of a benevolent despot, or a complete egotist, or ‘all men of goodwill’, a misanthrope, the state, race, or group mind, God, etc. Any possible opinion is admissible.”

In principle, there is no reason why welfare economists should not study the structure and implications of any system of ethical values relating to the society and its affairs, but in practice the welfare economist would, of course, consider only those value judgments which are of interest either to herself or to some significant section of the society. In

studying such value systems, should the welfare economist herself take any ethical position? It is possible to argue that, while the welfare economist should study the implications of different value systems, she herself should not take any ethical position relating to the evaluation/ prescription of social states and policies. If this methodological position is accepted, the conclusions of the welfare economist would be represented by propositions of the type, “if you subscribe to ethical values  $\theta_1, \dots, \theta_t$ , then you must be prepared to accept ethical judgments  $\theta_1, \dots, \theta_t$ ; on the other hand, if you subscribe to ethical values  $\theta_1, \dots, \theta_r$ , then you must be prepared to accept the value judgments  $\theta_1, \dots, \theta_r$ , and so on”. However, under this conception of the welfare economists’ job, the welfare economist herself would not take a position about whether one should subscribe to  $\theta_1, \dots, \theta_t$  or to  $\theta_1, \dots, \theta_r$  when the two ethical systems turn out to be incompatible (see, for example, Archibald (1959) who takes a methodological position somewhat similar to this).. It is, however, not clear what purpose would be served by such self-abnegation on the part of the welfare economist. Since the analysis and criticism of ethical values that constitute the basis of the evaluation/ prescription of social states and policies lie at the heart of welfare economics, we do not see any compelling reason why the welfare economist should not make her values explicit, seek to justify them, and offer criticism of values not compatible with her own values. In fact, most welfare economists in recent times have done exactly that: they have taken explicit positions for and against specific value systems and have sought to defend their positions.

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