

## THE BARGAIN PRINCIPLE\*

### 1. INTRODUCTION

Most people are aware of the possibility that a desired good can be attained only at the cost of some other desired good, i.e. that it has a price. Many proverbs attest to this awareness; for example: 'you can't have your cake and eat it too', or 'you can't have something for nothing', or 'nihil dant dei mortalibus gratis'.

Few people are willing to pay just any price for a good, and most people attempt to pay as little as possible. This holds not only for economic transactions, also our intellectual life is saturated with calculations and reductions of price. Decisions of acceptance or rejection; choices of action; conceptions of means-end-rationality; standards of criticism; measures of progress; they all depend on considerations of price, even if one does not speak of 'prices'. For example, in technology and philosophy alike, a new solution to a problem is preferable to the old solutions if it at least achieves all the advantages of the old solutions without any (or with fewer) of their disadvantages (prices). In this sense, a new solution to a problem must approximate pricelessness more than any of the old solutions in order to be preferable.

Pricelessness (and *a fortiori* approximation of pricelessness) is itself a desired good, as important for our intellectual life as for our practical life. However, in recent times philosophical criticism has given increasingly more attention to the possibility that important desired goods can be 'artificially' produced. The result is the semblance of the desired good but not the good itself. This kind of production can be called *achievement by fiat*. One example is the strategies available for achieving certainty. For those who seek certainty, it is always possible to reach their goal by introducing self-evident truths, or exempting certain verities from criticism, or reducing the empirical content to zero, or verifying only by example, etc. Other well-known examples of achievement by fiat are infallibility achieved through dogma, truth achieved by immunization

against criticism, right achieved by might, virtue achieved by self-righteousness, beauty achieved by decree. Unfortunately, *pricelessness can also be achieved by fiat* (see appendix for flagrant strategies). Thus, wherever someone claims an advantage for a particular point of view, there is a good possibility that the approximation to pricelessness on which the advantage is based is produced by fiat. This touches the heart of many philosophical arguments and calls for some philosophical analysis.

## 2. HIDDEN COMPLEXITY AND EMPIRICAL UNCERTAINTIES

While it is relatively easy to expose the most flagrant strategies for achieving pricelessness by fiat (see appendix), this does not mean that it is generally easy to detect whether pricelessness has been or has not been achieved artificially. For, even if people do not use the most flagrant strategies, their arguments may still rest on ambiguities to such a degree that it is difficult to say whether they exploited the ambiguities for the achievement or approximation of pricelessness or not. Such ambiguities arise mainly from two sources: hidden complexity and empirical uncertainties. *Hidden complexity* is introduced through ‘lump-desiderata’, i.e. desiderata that combine a number of different sub-desiderata. For example, in the literature ‘liberation’ means a great number of things. It means the creation of independent thinking for all, the chance for self-development for all, reduction of poverty and misery, solidarity of mankind, etc. Assuming for the sake of the argument that each of these sub-desiderata were clear enough, it is by no means clear that maximizing any one of them will not force us (at least temporarily) to minimize one or more of the other sub-desiderata. This creates many ambiguities when ‘liberation’ is said to be *one* desideratum.<sup>1</sup> What prices do we have to pay for its realization? Depending on which sub-desiderata are chosen, the prices may be very different.

The situation is often made even more ambiguous by the use of complex *indirect* desiderata. An indirect desideratum is a condition known or believed to produce a particular desired state. For example, if socialism is believed to produce liberation, socialism becomes an indirect desideratum and may even replace ‘liberation’ on the list of desired states. Yet, socialism is itself a complex bundle of characteristics with

unanalyzed, ambiguous, or unknown relations to the various sub-desiderata that make up 'liberation'. In this fashion, the claims become so ambiguous that it is difficult (if at all possible) to say whether a particular argument using such lump- and indirect desiderata approximates pricelessness by fiat or not.

Even when complexity is low or explicit, *empirical uncertainties* may produce a highly ambiguous situation. Most arguments about pricelessness involve empirical assertions, even in philosophy. These assertions may be so uncertain that it is, again, difficult (if at all possible) to say whether or not the argument achieves or approximates pricelessness by fiat. For example, assumptions about perception, memory, emotions etc. are frequently found in philosophical arguments. Many of these assumptions are empirically so uncertain that they can be used to support opposing views in one way or another: one and the same uncertainty is either still low enough to make the assumption acceptable or high enough to make the assumption unacceptable, a decision that is often made on pragmatic grounds rather than according to any explicit theory of knowledge. Empirical uncertainties thus allow to a certain extent argumentations for and against any conclusion and thus they also allow pricelessness by fiat. When empirical uncertainties are combined with high hidden complexity, a situation not uncommon in social philosophy, 'Lebensphilosophie', phenomenology, and other more speculative branches of philosophy, pricelessness by fiat is especially easy to produce and difficult to detect.

Any possible solution to this problem is only worth considering if it is not itself an achievement by fiat. For example, little will be gained from ruling out empirical uncertainties, as this attempt would imply the achievement of certainty by fiat (see above). Nor can hidden complexity be ruled out once and for all without legislating a criterion for complexity that would *by definition* guarantee the absence of ambiguities. In short, it is unlikely that there is any genuine method that will make pricelessness by fiat impossible. This still leaves another, more modest, possibility: to look for ways to make the use of hidden complexity and the exploitation of empirical uncertainties for the achievement or approximation of pricelessness by fiat more difficult and thereby less likely. This effort involves first of all that prices be made more easily detectable. To this end we will begin by introducing a number of concepts.

## 3. CHARACTERISTICS AND THEIR CONJUGATION

3.1. *Preliminary Definitions and Conventions*

*Entity.* The term *entity* will be used to refer to things, processes, occurrences, and the like. We shall feel free to use this term to cover what may be different logical categories in other contexts.

*Convention:*  $x$  and  $y$  will denote entities,  $Ch'$  and  $Ch''$  will denote characteristics.

*Characteristics.* For reasons of completeness in the definitions of conjugation (below), we need to distinguish different kinds of characteristics. If we can only register presence or absence in an entity, a characteristic will be called *classificatory*. If we can register its increase and decrease in an entity without being able to specify the amount of increase or decrease, a characteristic will be called *comparative*. If we can register its increase and decrease in an entity and are able to specify the amount of increase and decrease, a characteristic will be called *quantitative*.

3.2. *The Concept of Conjugation*

*Conjugation.* Two characteristics,  $Ch'$  and  $Ch''$ , are *conjugate<sub>xy</sub>* if and only if the assignment or non-assignment of  $Ch'$  to  $x$  is logically or empirically determinative for the assignment or non-assignment of  $Ch''$  to  $y$ , and vice versa.<sup>2</sup>

The term conjugation refers to a situation in which two characteristics are joined together under one yoke and cannot change independently. For example, let  $x$  and  $y$  be the entity 'dry gas',  $Ch'$  be 'amount of pressure exerted on', and  $Ch''$  be 'volume of'; then, according to Boyle's law,  $Ch'$  and  $Ch''$  are (empirically) *conjugate<sub>xy</sub>* provided the temperature remains constant. The assignment of a certain pressure to the dry gas will be determinative for the assignment of a certain volume and vice versa. In this case, the two entities  $x$  and  $y$  are identical, but in many cases this is not so. For example, 'having all the gains' for person  $x$  is (logically) *conjugate<sub>xy</sub>* with 'having all the losses' for person  $y$  in a two person zero-sum game.

The concept of conjugation is akin to concepts such as correlation and association, but it is broader than any of these. Not only does it cover relationships expressed on various kinds of measurement scales, it also covers relationships between characteristics each of which is expressed on a different kind of measurement scale. Using the terms introduced above, we can say that conjugation covers relationships between two classificatory characteristics, or two comparative characteristics, or two quantitative characteristics, and also relationships between one classificatory and one comparative characteristic, or one classificatory and one quantitative characteristic, etc. This broad coverage of the concept renders the following definitions cumbersome although the idea itself is rather straightforward, viz. the 'behaviour' of one characteristic is accompanied by a certain 'behaviour' of another characteristic.

*Positive conjugation.* Two characteristics, Ch' and Ch'', are *positively conjugate<sub>xy</sub>* if and only if one of the following holds:

- (i) given Ch' and Ch'' are both classificatory, then if Ch' is present (absent) in  $x$  then Ch'' is present (absent) in  $y$ ;
- (ii) given Ch' is classificatory and Ch'' is comparative or quantitative, then if Ch' is present (absent) in  $x$  then, compared to the situation in which Ch' is absent (present) in  $x$ , Ch'' increases (decreases) in  $y$ ;

and if Ch'' increases (decreases) in  $y$  then Ch' is present (absent) in  $x$  or going to be present (absent) in  $x$  with further increase (decrease) of Ch'' in  $y$ .<sup>3</sup>

- (iii) given Ch' is comparative or quantitative and Ch'' is comparative or quantitative, then if Ch' increases (decreases) in  $x$  then Ch'' increases (decreases) in  $y$ .<sup>4</sup>

The example given above for 'having all the gains' and 'having all the losses' illustrates positive conjugation between two classificatory characteristics. Positive conjugation between mixed characteristics is exemplified by the following: 'having enforced property rights' (a classificatory characteristic) and 'volume of economic transactions' (a quantitative characteristic) are positively conjugate for a society. That is, according to economic sociology, the volume of economic transactions of a society is higher if that society has enforced property rights than if that society has no enforced property rights, and vice versa.

*Negative conjugation.* Two characteristics, Ch' and Ch'', are *negatively conjugate<sub>xy</sub>* if and only if one of the following holds:

- (i) given Ch' and Ch'' are both classificatory, then if Ch' is present (absent) in  $x$  then Ch'' is absent (present) in  $y$ ;
- (ii) given Ch' is classificatory and Ch'' is comparative or quantitative, then if Ch' is present (absent) in  $x$  then, compared to the situation in which Ch' is absent (present) in  $x$ , Ch'' decreases (increases) in  $y$ ; and if Ch'' increases (decreases) in  $y$  then Ch' is absent (present) in  $x$  or going to be absent (present) in  $x$  with further increase (decrease) of Ch'' in  $y$ <sup>5</sup>.
- (iii) given Ch' is comparative or quantitative and Ch'' is comparative or quantitative, then if Ch' increases (decreases) in  $x$  then Ch'' decreases (increases) in  $y$ .<sup>6</sup>

Boyles's law, mentioned above, illustrates negative conjugation for quantitative characteristics: with temperature being constant, the greater the pressure exerted on the gas the smaller its volume and vice versa. An example for mixed characteristics is the following:

given a constant light source, the amount of light reflected from a surface (quantitative characteristic) is negatively conjugate with the surface being black (classificatory characteristic).

*Neutral relation.* If two characteristics are neither positively nor negatively conjugate<sub>xy</sub>, they are by definition *neutrally related<sub>xy</sub>*. For example, as far as we can make out, the number of articles we write is neutrally related to the number of trees in Abyssinia. Two characteristics may, of course, be neutrally related due to some specified or unspecified circumstances preventing or counteracting conjugation. If Abyssinian trees were used for the production of paper and if we wrote an enormous amount of articles, then, other things equal, the number of trees in Abyssinia and the number of articles could possibly be negatively conjugate.

### 3.3. *Desiderata, Advantages, and Disadvantages*

For the application of the concept of conjugation to the problem of pricelessness by fiat we need a few more simple definitions which allow us to circumscribe a situation in which pricelessness cannot be achieved.

*Desideratum.*  $Ch'_x$  is a *desideratum* for  $P$  if and only if one of the following holds:

- (i)  $Ch'$  is classificatory and  $P$  prefers, *ceteris paribus*,  $Ch'$  present in  $x$  to  $Ch'$  absent in  $x$ ;
- (ii)  $Ch'$  is comparative or quantitative and  $P$  prefers, *ceteris paribus*, either a certain  $Ch'$  in  $x$  to less of  $Ch'$  in  $x$ , or (also) more of  $Ch'$  in  $x$  to less of  $Ch'$  in  $x$ .<sup>7</sup>

In most cases, it is not the characteristic *per se* but the characteristic/entity combination that is preferred. For example, many men who would prefer a buxom girl to a flat-chested one do not therefore prefer a buxom male friend to a flat-chested one. One should also note that comparative and quantitative characteristics used to define desiderata may actually only cover a certain range of an underlying order or continuum. For example, most people would prefer an apartment with more rooms to an apartment with fewer rooms, but only up to a point. Nobody is likely to prefer a two thousand room apartment to a sixteen room apartment. To maximize the number of rooms of an apartment thus means to reach or approximate a certain number of rooms. Having reached that number,  $P$  will prefer keeping this number to a lower number of rooms.

*Advantage.* The increase or realization of a desideratum for  $P$  will be called *advantage* for  $P$ .

*Disadvantage.* The decrease or nonrealization of a desideratum for  $P$  will be called *disadvantage* for  $P$ .

These last two definitions are introduced solely for the sake of convenience. They allow us to refer to changes in desired states through simple common sense expressions.

#### 4. BARGAIN SITUATIONS AND THE BARGAIN PRINCIPLE

##### 4.1. *Bargain Situations*

Following Weyl (1949: 116, *passim*) we use the phrase 'to have to take into the bargain' to express, we think fittingly, a situation in which an

advantage can only be achieved at the price of a disadvantage. This situation invariably materializes if two of  $P$ 's desiderata are negatively conjugate,<sup>8</sup> and we call it a *bargain situation*, more formally expressed as follows.

Given  $x, y$  and  $Ch', Ch''$  and given that  $Ch'$  and  $Ch''$  are negatively conjugate <sub>$xy$</sub>  and are desiderata for  $P$ , then  $P$  is in a *bargain situation*, i.e.  $P$  has to take a disadvantage with regard to  $Ch'_x$  (or  $Ch''_y$ ) into the bargain for any advantage with regard to  $Ch''_y$  (or  $Ch'_x$ ).

Thus, a situation in which  $P$  must take a disadvantage regarding one desideratum into the bargain for an advantage regarding another desideratum, and vice versa, is a bargain situation.

Such bargain situations often include alternative conditions of choice, each of which is linked to a particular 'bargain', i.e. to a combination of an advantage with a disadvantage. For example, if one has the choice of reaching a mountain top either by a long and gently ascending road or by a short and steep road (alternative conditions of choice), one may be confronted with the following bargains: not-tiring but slow ascent to the top versus a fast but tiring ascent to the top. This and other bargain situations can thus be schematized as follows:

		Entities	
		$x$	$y$
Alternative conditions	$C_1 \longrightarrow B_1$	$Ch'$ realized or increased = <i>advantage</i>	$Ch''$ not realized or decreased = <i>disadvantage</i>
	$C_2 \longrightarrow B_2$	$Ch'$ not realized or decreased = <i>disadvantage</i>	$Ch''$ realized or increased = <i>advantage</i>

Here,  $C_1$  and  $C_2$  are the alternative conditions of choice<sup>9</sup> (if any), and  $B_1$  and  $B_2$  are the two different 'bargains' with which  $P$  is confronted. For the purely classificatory case, the bargains are:  $Ch'_x$  and not- $Ch''_y$  ( $B_1$ ) versus  $Ch''_y$  and not- $Ch'_x$ .<sup>10</sup>

A bargain situation, as schematized above, contains all the elements needed to reduce hidden complexity and thereby to make prices more easily detectable. First of all, desiderata have to be expressed in terms of characteristics *and* entities. This reduces the likelihood of lump-desiderata, since for each desideratum *one* characteristic and *one* entity has to be identified. For example, with regard to 'liberation' in our example above, an author would have to choose one characteristic (such as 'solidary', or 'without poverty' or 'having the possibility for self-development' etc.) and one kind of entity (such as 'mankind', or 'society' or 'this group of individuals' etc.).<sup>11</sup> The particular desideratum is then a particular combination of a characteristic with a kind of entity, not all of these combinations. In case various characteristic/entity combinations are chosen, we have various desiderata, not one.

Secondly, indirect desiderata (if any) have to be explicitly stated as alternative conditions of choice ( $C_1$  and  $C_2$ ) and not as desiderata. In this way, an indirect desideratum is connected to a logical or empirical *claim* in a bargain situation, viz. the claim that  $C_1$  leads to  $B_1$  and  $C_2$  leads to  $B_2$ . This claim is open to criticism which again reduces the chance for hidden complexity. For example, in case of an empirical claim, a given condition may be criticized on the grounds that it is not identifiable, which renders the claim empirically vacuous; or the claim may be criticized for lacking in time specification: will  $C_1$  immediately 'lead' to  $B_1$ , or will it lead to  $B_1$  within, say, a year? Lack of such a time-specification could render the claim immune against counter-evidence and thus possibly true by fiat (see Section 6 below).

#### 4.2. *The Bargain Principle*

While the explicit statement of a bargain situation reduces the likelihood of hidden complexity, it does not greatly diminish the possibility of exploiting empirical uncertainties. Worse, the schema of a bargain situation is obviously worthless if nobody is prompted even to explicate bargain situations. It is only too human to want to have both alternatives even where only one or the other is available and to arrange arguments in such a way that bargain situations are not made explicit.

What is needed, therefore, is a way that encourages the explication of bargain situations and diminishes the possibility of exploiting empirical

uncertainties. What we are thus looking for is a way to make people do what they would rather avoid doing. This necessitates a 'stick and carrot' situation in which little would be gained by avoiding the explicit use of bargain situations and by exploiting empirical uncertainties. This situation can be achieved by shifting the burden of the proof. If one operates on the premise that one has to pay no price unless proven otherwise, one has little incentive for proving the state of affairs to be otherwise. If, however, one operates on the principle that one has to pay a price unless proven otherwise, there is a great incentive for proving the situation to be otherwise. On this basis, we propose a methodological maxim, which we call the *bargain principle*: *assume, that any particular pair of your desiderata is negatively conjugate and thus creates a Bargain Situation, unless it is empirically or logically established that the pair is positively or not at all conjugate.*<sup>12</sup>

Following the bargain principle will prompt a theoretic effort: with the help of (existing, or failing that: new) logical analysis and/or empirical theories, one has to investigate the relationships within and conditions of relationships for a particular pair of desiderata: under what conditions (if any) are the two desiderata positively or negatively conjugate? How can I demonstrate that this particular pair of desiderata is *not* negatively conjugate? This theoretic effort also necessitates the clear identification of desiderata in terms of characteristics and entities, as well as identification of alternative conditions of choice and demonstrable claims concerning relationships between conditions and bargains. Achievement or approximation of pricelessness by fiat is not thereby made impossible, but its likelihood is greatly reduced.

## 5. FURTHER ANALYSIS OF BARGAIN SITUATIONS

### 5.1. *Functions of Bargain Situations*

The general function of establishing explicit bargain situations is to reduce the likelihood of pricelessness by fiat. But there are also a number of related special functions.

#### 5.1.1. *The Explication of Bargain Situations as a Tool of Criticism*

In most fields (or universes of discourse), there are competing positions

and views. Some pertinent examples are the following:

- economics*: planned economy/market economy
- sociology*: methodological collectivism/methodological individualism
- aesthetics*: contextualism/isolationism
- life styles*: Epicurean style/Stoic style
- world views*: naturalism/mysticism
- biology*: vitalistic vocabulary/mechanistic vocabulary
- epistemology*: idealism/materialism
- mathematics*: intuitionism/formalism
- law*: formal rationality/material rationality
- ethics*: intuitionism/naturalism

This list could easily be extended. Argumentation for one or the other position frequently takes the form of ‘truncated’ bargain situations which, in essence, claim pricelessness for one or the other position:

Position <sub>1</sub>	-----	non-realization of desideratum <i>x</i> (disadvantage)
Position <sub>2</sub>	-----	realization of desideratum <i>x</i> (advantage)

In such truncated bargain situations, only one desideratum or lump-desideratum is considered, which eliminates the question of conjugation and allows Position<sub>2</sub> to be wholly advantageous while Position<sub>1</sub> is wholly disadvantageous. This way of argumentation has been called ‘Manichean’ (Kaufmann, 1970) and invites immediately the question: are there desiderata that can be realized through Position<sub>1</sub> but not through Position<sub>2</sub>?<sup>13</sup> In this case, an author has (at least tentatively) already identified the alternative conditions (Position<sub>1</sub> and Position<sub>2</sub>) and one desideratum, directly inviting the search for negatively conjugate desiderata.

This search for negatively conjugate desiderata involves at least the following steps: the breaking down of lump-desiderata (if any) into

combinations of characteristics and entities; the specification of alternative conditions and the analysis of their supposed mutual exclusiveness; scrutiny of logical or empirical claims linking conditions to desiderata; and the search for arguments and theories pertaining to the conjugation of the desiderata involved.

Since pricelessness by fiat is always a realistic possibility, any claim to pricelessness or approximation to pricelessness should be viewed with suspicion and invite critical explication of possible bargain situations.

### 5.1.2. *Explication of Bargain Situations as a Tool of Reconstruction*

The critical scrutiny of claims to pricelessness may reveal that neither the alternative conditions nor the desiderata can simply be explicated or specified because they are too ambiguously stated in the literature. The same may happen with arguments that do not claim pricelessness. In these cases, the explication of a bargain situation requires a more or less creative reconstruction of all elements of a bargain situation. For example, Lindenberg and Oppenheim (1974) attempted to specify the desiderata that could and could not be realized by accepting or rejecting Bohr's principle of complementarity. This task required a major reconstruction of Bohr's principle in terms Bohr never used and the formulation of desiderata many of which he had not considered.<sup>14</sup> Among these desiderata were the following two:

- (1) to assign characteristics to entities in such a way that the assignment answers the question 'what is it really?'<sup>15</sup> and
- (2) to assign characteristics the way they were intended to be assigned to entities (for instance, the characteristic 'is male' is intended to be assigned once and for all to an entity to which it applies, while there exists no such expectation for the assignment of, say, 'is magnetic').

On the basis of the reconstructed principle, it became clear that with regard to these two desiderata both accepting and rejecting Bohr's principle produced advantages and disadvantages. If one accepts Bohr's principle, the second desideratum can be realized but not the first, i.e. characteristics can be assigned the way they were intended to be assigned but the question 'what is it really' becomes meaningless. If one rejects Bohr's principle, the question 'what is it really' remains meaningful but the characteristics cannot be assigned the way they were intended to be assigned. This clearly identifies Bohr's principle as leading to a bargain

(desideratum 2 for the price of desideratum 1) that has to be confronted with another bargain (desideratum 1 for the price of desideratum 2). To our knowledge these bargains had never been considered, not even in truncated form.

Another example of bargain situations as tools of reconstruction can be found in Brody and Oppenheim (1977). These authors approached past and current controversies in psychology by reconstructing alternative conditions rather than explicating alternative schools (see Brody and Oppenheim, 1966). The alternative conditions were terms referring to bodily states and terms referring to mental states of a person. They then searched for desiderata that can be realized by the use of bodily and mental terms and investigated whether these desiderata are negatively conjugate or not, i.e. whether or not the desiderata create a bargain situation.

Among the desiderata found were the following two:

- (1) to obtain direct information on a psychological state of a person;
- (2) to obtain objective (i.e. interpersonally verifiable) information on a psychological state of a person.

It turned out that these two desiderata are negatively conjugate, given the conditions of choice (mental and bodily terms). Using mental terms, one can obtain direct information but this information is not objective; using bodily terms, one can obtain objective information but this information is not direct. Thus each choice of terms leads to a particular bargain, and jointly these bargains form a bargain situation. This kind of analysis thus shows that neither of the two positions has *all* the good or *all* the rotten eggs in the basket.

Yet, reconstructing a bargain situation is far from suggesting some golden way in the middle that carries no price. Rather, being confronted with the explicated bargain situation, a psychologist may want to realize one or the other desideratum at different times, fully aware that each time he is paying a price.

Not every argument can be reconstructed in terms of alternative conditions, desiderata and conjugation of desiderata, since not every argument involves desiderata. However, for all arguments connected to the presentation, defence and attack of a position (such as the establishment of standards or criteria, claims of achievement with regard to problem solutions, arguments on method, etc.), this mode of reconstruc-

tion is a powerful alternative to all modes of reconstruction in which desiderata remain implicit.<sup>16</sup>

## 5.2. *Kinds of Bargain Situations*

There are various kinds of bargain situations, each with its own peculiarities. In the following, four different kinds will be briefly discussed, but there is no claim to completeness attached to this discussion.

### 5.2.1. *Dilemmas*

In the literature, one frequently finds descriptions of choice situations called 'dilemmas'. Dilemmas can be defined as situations in which (a) choice between two given alternatives cannot be avoided by person *P*, and (b) *P* has no criteria for choosing between the alternatives. Buridan's ass starving in his indecision between two haystacks, is the classical example for such a dilemma.

Some dilemmas are special cases of bargain situations, viz. if *P*'s choice between two alternative conditions leads to the choice between two bargains, and *P* has no criteria for choosing between these two bargains or ways of making the choice unnecessary.

These kinds of dilemmas are often expressed in yet another form of truncated bargain situations: the disadvantage connected with one alternative versus the disadvantage connected with the other alternative. In this way, negative conjugation between desiderata and thus also the *advantages*, if any, remain unexplicated. Such a truncated bargain situation can be used to discredit a particular position artificially. For example, if it can be shown that a certain course of action leads to the choice between two evils, that course of action is discredited and can be used to support a claim of pricelessness for some other course of action. Only a careful reconstruction in terms of desiderata, conjugation of desiderata, etc. will reveal advantages and disadvantages and their systematic relationship; i.e. only the serious attempt to reconstruct the argument in terms of a bargain situation will give us some assurance that the alleged dilemma has not been used to achieve pricelessness by fiat.

It is important to note that bargain situations are indifferent to *P*'s relative evaluation of desiderata. This is to say that the explication of

prices implies nothing about  $P$ 's willingness to pay one price rather than another or to prefer one bargain over the other (see also Section 5.2.4 below). For this reason, a situation of equal evaluation of bargains (dilemma) is a *special case* of a bargain situation.

### 5.2.2. *Unconditional and Conditional Bargain Situations*

The analysis of conjugation of two particular desiderata may reveal that the two desiderata are negatively conjugate under all conceivable conditions (*unconditional* negative conjugation). In this case a claim is put forward that *any* condition that realizes one desideratum bars the realization of the other desideratum, and vice versa. For example, Heisenberg's uncertainty principle is such a claim: whatever increases the precision of measurement for the position of an electron decreases the precision of measurement for the momentum of an electron, and vice versa.

Alternatively, the investigation may show that the two desiderata are only negatively conjugate *given* the particular conditions (or sets of conditions)  $C_1$  and  $C_2$  (*conditional* negative conjugation). This leaves the possibility that the two desiderata are neutral or positively conjugate under some other combination of conditions.

Claims of unconditional negative conjugation of desiderata are possibly the strongest statements about human limitations imaginable. They express a tragic view of the world and cause (understandably) a great deal of controversy. Heisenberg's uncertainty principle and Freud's statement about civilization and discontent are outstanding examples of such claims. They may, like all claims, turn out to be wrong, but they represent a very powerful substantive effort to battle pricelessness by fiat by arguing that certain prices cannot be eliminated and that we therefore have to reckon with this limitation rather than cover it up.

In case of conditional negative conjugation, it is claimed that the particular bargain situation is in principle avoidable by producing conditions under which the desiderata are neutral or positively conjugate. The bargain situation thus offers an incentive for the production of these conditions, and this may involve innovations. For example, not long ago the choice between a digital and an analogue computer was a choice between different packages of certain advantages and disadvantages (say,

high versatility and limited precision for digital computers and unlimited precision and low versatility for analogue computers). If one could enlarge the capacity of the digital computer to any arbitrary degree, then, for all practical purposes, its precision would not be limited anymore. There were no reasons to assume that versatility and precision are unconditionally negatively conjugate desiderata, and the computer industry indeed succeeded in enlarging the capacity of the digital computer to arbitrary degrees, rendering the old bargain situation obsolete.

### 5.2.3. *Meta Bargain Situations*

Overcoming a bargain situation, as in the example above, does not automatically mean that prices are eliminated. Perhaps the overcoming of the bargain situation creates new prices with regard to some other desiderata. Following the bargain principle, we would actually assume this to be the case: overcoming of the bargain situation is itself a desideratum and thus expected to be negatively conjugate with other desiderata unless the opposite is established.

Let us take, for example, the famous production curve established between butter and cannons: given the state of our economy, we can only produce  $x$  units of butter and  $y$  units of cannons simultaneously; if we increase butter production by a certain amount, we have to reduce cannon production by some other amount and vice versa. This relationship can be plotted as a curve, and each point on the curve represents (in our idiom) a bargain, each pair of points represents a bargain situation. A technical innovation may allow us to move the entire curve in such a way as to allow a higher amount of butter and cannon production at each point. In effect, we have made all the previous 'butter and cannon' bargain situations less severe. In this way we may effectively overcome a given bargain situation but we will have to ask the price of the technical inventions that allow us to do so (such as certain social costs, depletion of raw materials etc.). This question may reveal a new bargain situation on a *meta* level, that is, a bargain situation involving at least one desideratum about some other bargain situation.

In meta bargain situations an important function of the bargain principle comes into relief. This principle does not allow us to treat considerations of price only relative to a restricted set of desiderata; rather, it forces

us to consider prices relative to our entire (and possibly open) set of desiderata. Innovations may indeed overcome particular bargain situations but how do we know that it is not just due to the particular selection of desiderata that the price is lowered or eliminated?

Following the bargain principle means that we are willing to consider an ever-widening circle of desiderata for the establishment of problems and their solutions.<sup>17</sup>

#### 5.2.4. *Imputed Bargain Situations*

Since bargain situations are dependent on desiderata, they are in principle relative to individuals holding particular desiderata. Yet, there are, of course, frequently problems connected with the assessment of desiderata. Individuals may claim not to hold a particular desideratum and therefore not to be confronted with a bargain situation. In some cases, this creates an ambiguous situation because we are not sure whether the individual disclaims the desideratum because he does not hold it or because he does not wish to be confronted with the particular bargain situation. Thus we are not sure whether there is indeed no bargain situation or whether the individual uses a particular strategy (see appendix) to achieve pricelessness by fiat.

There is also a third possibility: the individual disclaims the desideratum in good faith, yet he actually holds the desideratum. There may be a variety of reasons why an individual is unaware of holding a particular desideratum. Most importantly, the individual may fail to make a distinction between a desideratum and the value placed on a desideratum. For example, security may be a desideratum for all human beings but those who are in a very secure environment may not place any value on security and thus believe that it is no desideratum they hold. The value of a desideratum changes with saturation. If we equate the value placed on a desideratum with the desideratum itself, we would favour a form of argumentation we have been trying to prevent: truncated bargain situations (see 5.1.1. above) in which positions maximizing high-priority needs become priceless, positions minimizing high priority needs have no merit. In this way, arguments become particularly vulnerable to moods, fashions, and *Zeitgeist* fluctuations. In philosophy, for example, one can recognize a familiar situation in the following caricature: people who are

'fed up' with hairsplitting exactitude vilify all philosophical approaches involving formalism and celebrate I-Thou experiences, absolute and intuited truths, tuning in and turning on. Conversely, people who are 'fed up' with vague emotionalism vilify all philosophical positions involving subjective responses and celebrate minute analysis of language, formulae, and calculability. Finally, somebody will come along who is 'fed up' with both of these extremes and who claims to combine formalism with subjective responses in one synthesis. In all three cases, lower priority needs (*desiderata*) remain unmentioned, their relations to high priority needs (*desiderata*) remain unanalyzed, and prices on all sides are suppressed rather than overcome.

In order to avoid pricelessness through unacknowledged *desiderata*, the investigator must have the opportunity to *impute* *desiderata* if he can make a good case for such an imputation. There may be behavioral indicators, evolutionary and historical evidence, biological, psychological, and sociological theories on which the imputation of *desiderata* may be based.<sup>18</sup> Bargain situations established with these *desiderata* are thus themselves imputed. Their value in reducing pricelessness by fiat depends on the quality of arguments on which the imputations are built.

#### 6. FALLIBILISM AND THE BARGAIN PRINCIPLE

Not only for the imputation of *desiderata*, but also for the analysis of conditional and unconditional conjugation, empirical and logical claims play an important role. The bargain principle itself is based on the premise that the kind of conjugation involved (negative, positive, neutral) can be 'established'. This brings us to the Achilles heel of the bargain principle. What is the value of this principle if the kind of conjugation involved can itself be established by fiat? One has to admit that pricelessness by fiat is not reduced in any way if the truth of statements about the relationship between advantages and disadvantages is established by fiat. For this reason, the bargain principle can only keep its promise if it is linked to a methodology designed to reduce the likelihood of truth established by fiat. Such a methodology has been proposed by Popper (1959, 1965, 1972) and is frequently referred to as 'fallibilism'. One can even summarize Popper's effort as a close parallel<sup>19</sup> to our line of argumentation:

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<i>truth</i>	<i>pricelessness</i>
1. We would like to approximate truth as much as possible.	1. We would like to approximate pricelessness of desiderata as much as possible.
2. Truth by fiat is always possible (through ad hoc assumptions, immunization and exemptions from criticism, etc.).	2. Pricelessness by fiat is always possible (through flagrant strategies, hidden complexity, exploitation of empirical uncertainties, etc.).
3. One cannot rule out truth by fiat once and for all.	3. One cannot rule out pricelessness by fiat once and for all.
4. We don't want to have truth by fiat; therefore . . .	4. We don't want to have pricelessness by fiat; therefore . . .
5. We should make it as easy as possible to detect falsehood (say, through high empirical content of our statements), and look as hard as possible for falsehood (i.e. attempt vigorous falsification).	5. We should make it as easy as possible to detect prices (say, through reconstruction of arguments in terms of desiderata, unconditional or conditional conjugation of desiderata, etc.) and look as hard as possible for prices (say, by vigorously enlarging the set of considered desiderata).
6. Only in those (probably rare) instances where we, having followed the rule, fail to find falsehood (i.e. do not succeed in falsification) can we tentatively accept the truth of a particular statement as not produced by fiat.	6. Only in those (probably rare) instances where we, having followed the rule, fail to find prices (i.e. do not succeed in finding negative conjugations) can we tentatively accept the pricelessness of a desideratum as not produced by fiat.

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Next to this striking parallel between fallibilism and the bargain principle, there is also an important *disanalogy* between the two. Finding a falsehood is not like finding a price. In the first case (falsehood), we have to reject the statement and look for alternatives, that is, the action implication is relatively clear. In the second case (prices), we do not have to reject the desiderata; rather, we have to accept – at least for the time being – the price, the action implication not being clear at all. Depending on the situation, we may gain equanimity when we learn that something we have always tried to get without price simply does not come without price; or we may feverishly attempt to invent something that will break or lower the negative conjugation; or we may simply choose not to realize a desideratum given its price. In any case, we should *not* reject the desideratum as such simply because it has a price, for if we were to follow this strategy we would again create pricelessness by fiat.

Although the link between the bargain principle and fallibilism can easily be established, this does not mean that accepting the bargain principle commits anyone to accept Popper's fallibilism. Rather, accepting the bargain principle commits one to some philosophical position that is aimed at and successful in reducing the likelihood that statements about conjugation etc. are true by fiat.

#### 7. RELATED ADVANTAGE-DISADVANTAGE ANALYSES

There are a number of serious efforts that involve the analysis of advantages and disadvantages in some way and are thus related to our efforts. For example, there is utility (or decision) theory, cost-benefit analysis, and functionalism. In which way do they differ from the present kind of analysis? In a summary fashion, one can say that they serve distinct and different functions: utility theory is either predictive (how do people make choices?) or normative (which strategies maximize certain gains or minimize certain losses?); cost-benefit analysis is descriptive (what are the costs and benefits of a particular option?); and functionalism is heuristic (relevant factors can be isolated from irrelevant ones by asking for their positive or negative contribution or 'function' to the maintenance of a particular kind of entity). Each one of these approaches is immensely useful in its own right, but none of them represents an attempt to reduce the likelihood of pricelessness by fiat. The bargain principle is a methodological rule, devised to achieve this reduction in the likelihood of pricelessness by fiat.

Normative utility theory and cost-benefit analysis come closest to our efforts but, due to their respective aims, they still differ greatly from the bargain principle. For example, both normative utility theory and cost-benefit analysis operate with a *restricted* set of utilities (or benefits) while the bargain principle requires the consideration of an *unrestricted* and possibly open set of desiderata. Cost-benefit analysis is concerned with the *amount* of costs and benefits while the bargain principle is concerned with the systematic relationships between costs and benefits (conjugation of desiderata). And yet another difference is that both normative utility theory and cost-benefit analysis are used to aid decision making directly, while the bargain principle may, if anything, delay the process of decision making by requiring the consideration of additional desiderata and by

being purposefully insensitive to differing values placed on desiderata (and thus insensitive to differing need structures requiring decisions; see Sections 5.2.1 and 5.2.4 above).

The bargain principle was never meant to replace any of these other kinds of analysis of advantages and disadvantages. Rather it considers a new aspect of advantages and disadvantages: the possibility that they are produced by fiat.

#### 8. CONCLUSION

One danger with regard to any achievement is that it may have been artificially produced (produced by fiat), in which case it is only the semblance of an achievement. We argued that this also holds for the achievement of pricelessness, and we set out to devise ways in which the likelihood of pricelessness by fiat could be reduced.

Although much more detail could be added to its elaboration, we have succeeded, we think, in formulating a methodological principle (the bargain principle) that promises *to reduce the likelihood of pricelessness by fiat*. This principle essentially creates an incentive to investigate the systematic relationships between desiderata, thereby reducing the likelihood that these relationships are ignored or manipulated for the production of pricelessness by fiat. Since it is not restricted to particular kinds of desiderata and since desiderata occur in any field of inquiry, the bargain principle is widely applicable.<sup>21</sup>

The bargain principle also serves a variety of special functions. It serves as a *tool of criticism* and as a *mode of reconstruction* for any kind of argument that involves desiderata and it encourages the *detection of prices* where none had been expected. By requiring the consideration of increasingly more desiderata for the determination of prices the principle will also have an *interdisciplinary effect* in the following sense: certain restricted sets of desiderata are typically considered in a particular discipline while conjugation of desiderata across disciplinary lines is rarely considered; the bargain principle requires the consideration of conjugated desiderata regardless of disciplinary lines.

Once the bargain principle is accepted, it may also serve an important psychological function for those who find themselves frustrated in the attempt to come up with solutions that carry no price. Following this

principle will accustom us to finding prices attached to the realization or maximization of our desiderata. We may thereby acquire a state of mind (*equanimity*) that is best prepared to search for genuine rather than token solutions: being able to live with the fact that there are prices and to live with the strong possibility that prices cannot be eliminated even if they can be lowered.

Neither the general nor any of the special functions of the bargain principle can, as we have seen, be fulfilled if the achievement by fiat can simply shift from pricelessness to truth. The likelihood that statements about conditional or unconditional conjugation are true by fiat must thus be low as well. For this reason, we have argued, the acceptance of the bargain principle commits one to accept some methodology that effectively reduces the likelihood of achieving truth by fiat. Possibly the principle also depends on still other efforts to reduce achievement by fiat. For example, if desiderata are established by fiat (say, in the context of force and authority), the analysis of systematic relationships between desiderata would lose most of its functions and above all the function of reducing the likelihood of pricelessness by fiat. In this sense, various efforts to reduce the likelihood of achievement by fiat are supporting each other, and it is not implausible to venture the guess that critique of achievements by fiat may turn out to be one of the very few standards of rationality that stand above the sea of changing paradigms.

*Rijksuniversiteit Groningen*  
*Princeton University*

#### APPENDIX

##### *Flagrant Strategies for The Achievement of Pricelessness by Fiat*

There are at least two groups of flagrant strategies available for the achievement of pricelessness by fiat: first, to rule out prices altogether; second, to use flexible adjustments in desiderata and description of goods. These groups will briefly be discussed in order.

##### *Priceless Goods*

To rule out prices altogether is a radical achievement of pricelessness, just as it is a radical achievement of truth to rule out falseness (by, say, introducing infallibility). That these feats are achieved by fiat, is only thinly veiled.

One way to rule out prices altogether can be paraphrased as 'the priceless-good-argument':

*The priceless-good-argument:* in order to speak of price at all, one needs commensurable goods. All goods worth pursuing are incommensurable. Therefore, we cannot speak of price with regard to these goods. The assumption made in this argument is that in order to speak of price, you need equivalences, such as 1 cow = 3 sheep. What is the price of life, of liberty, human decency or certainty? You cannot establish equivalences between these goods because they are incommensurable. Hence, they are priceless. Often, one finds this argument bolstered by the addition that efforts to introduce consideration of price into the pursuit of these goods are really efforts to destroy them as goods worth pursuing because you have to make these goods commensurable first. For instance, if one measures life, liberty, human decency, etc. in terms of money they become commensurable but also perverted. For this reason, one shouldn't even attempt to introduce considerations of price in order to preserve the dignity of the goods.

The priceless-good-argument is clearly tailored to avoid *talk* about price, not price itself. First of all, by insisting that all goods worth pursuing are incommensurable, champions of this argument immunize themselves against the most obvious counter-attacks. Should a good turn out to be commensurable with another good (such as 'years of education for child' and 'hours of leisure time for parents' in a particular economy) then, by definition, both are not really worth pursuing, and, again, we don't have to speak of price. Second, the priceless-good-argument is based on a semantic trick. It allows consideration of price only if the worth of one good can be expressed in terms of another good, thereby avoiding consideration of situations where one good has to be sacrificed to achieve another good. The former is possible only with commensurable goods, the latter is also possible for incommensurable goods. For example, there may be a situation where one has to take a life in order to gain freedom. In this case the price for freedom would be the taking of a life. Yet, we may be unable to say that the taking of one life is 'worth' my freedom, i.e. 'life' and 'freedom' may be completely incommensurable.

In order to avoid this difficulty, once it is exposed, one can take refuge to another argument:

*The unity-of-goods-argument:* in order to speak of price at all, the realization of one good must preclude the realization of another. All goods worth pursuing can be simultaneously achieved. Therefore, we cannot speak of price with regard to these goods.

The most famous example of an application of this argument is the assertion that the true, the good, and the beautiful form a unity of goods, always achievable simultaneously. As the previous argument, the unity-of-goods-argument allows immunization against the most obvious counter-attacks. If it turns out that two goods cannot be simultaneously achieved, then, by definition, at least one of them is not worth pursuing. If one is caught using this circular reasoning or if one wants to hold on to certain goods as worth pursuing, one can take refuge to yet another kind of immunization: in order to claim that, say, the true, the good, and the beautiful can always be achieved simultaneously, one can declare the unity of these goods a self-evident truth or a truth by revelation. Clearly, thereby the validity of the unity-of-goods-argument is artificially produced. If, in the face of critique, more subtlety is necessary, one could still make use of one or more strategies from the following group.

#### *Flexible Desiderata and Attributes*

For most desiderata there is a problem with identifying their realization. When is something beautiful? When am I rich? When am I happy? This difficulty can be exploited to achieve

pricelessness by fiat through a simple rule: *mobilize the problem of identification selectively in such a way that it is always and only applied to desiderata which you feel you must sacrifice at the moment.*

For example, liberation and tolerance are two desiderata for Marcuse (1969). He feels that the latter must be sacrificed (if only temporarily) for the former. Clearly, both are difficult to identify, but he invokes the problem of identification only for the desideratum he has to sacrifice. "Tolerance is an end in itself", he states (p. 82) and thus, assuming it is true that tolerance has to be sacrificed to achieve liberation, the loss of tolerance or at least the end of an effort to achieve tolerance is the price for liberation. Why should we sacrifice tolerance for liberation?

To avoid this question, Marcuse simply rids himself of the price: "tolerance is an end in itself only when it is truly universal." (p. 84). Since it is at present not truly universal, it is not, at present, an end in itself and thus the sacrifice of tolerance for liberation is really no sacrifice at all. Marcuse thus achieves pricelessness by applying the rule above. Had he invoked the problem of identification for both desiderata he would have had to solve it for both before he could make a case, or, that effort failing, admit that both desiderata are too vague to be pitted against each other.

Another rule that will allow pricelessness by fiat is the following: *drop desiderata selectively in such a way that you never have to sacrifice the realization of one desideratum for that of another.*

If someone keeps a flexible inventory of desiderata, he will almost always be able to achieve pricelessness. This is the classic manner of rationalization. For example, you want something that costs a lot of money. 'What is money to me?' you may argue, 'money only corrupts'. At a later time, you may desperately need money and sell the object you bought, arguing that being attached to an object is bad materialism 'and who wants to be a bad materialist?' At the everyday level, this changing of desiderata may pass as a form of art, practiced by one whom the Germans call 'Lebenskünstler', someone who can always see the sunny side of things. In any serious intellectual argumentation, however, such an achievement of pricelessness may be disastrous.

For post-decisional situations, a similar Lebenskünstler effect can be achieved by the following rule: *select attributes of goods in such a way that they are always positive for the goods you get and negative for the goods you don't get.*

This is the famous 'sour-grapes' rule, amended. The desiderata remain fixed in this case, but the description of goods is flexible.

All these strategies achieve pricelessness by fiat in a flagrant way. They are easily detectable and obviously open to criticism. It is thus not due to these strategies that the bargain principle is necessary.

#### NOTES

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<sup>1</sup> Marcuse (1969) for example uses liberation as a lump-desiderata in this sense.

<sup>2</sup> We assume that characteristics are not capriciously assigned.

<sup>3</sup> In this case, it is possible that certain changes in  $Ch'_x$  are not determinative for  $Ch''_y$ .  $Ch'$  and  $Ch''$  are thus only conjugate<sub>xy</sub> above or below a certain threshold.

<sup>4</sup> Every characteristic is positively conjugate<sub>xy</sub> to itself, given  $x$  and  $y$  are identical. Observe, however, that if  $Ch' = Ch''$  and  $x \neq y$  then  $Ch'_x$  and  $Ch'_y$  may or may not be positively conjugate.

<sup>5</sup> Here, the remark in note 3 applies.

<sup>6</sup> A characteristic can never be negatively conjugate to itself unless  $x$  and  $y$  are different. If  $x$  and  $y$  are identical,  $Ch'$  must be different from  $Ch''$  in order to establish negative conjugation. For example, 'black all over' and 'red all over' are two characteristics logically negatively conjugate with respect to any entity that can take colour predicates ( $x = y$ ). But if the two characteristics are the same (say, 'has all the money') then  $x$  and  $y$  (say, people) must be different in order to establish negative conjugation.

<sup>7</sup> Where  $P$ 's preference is 'negative' with regard to  $Ch'$  and  $x$ , that is, where he prefers  $x$  without  $Ch'$  to  $x$  with  $Ch'$ ,  $Ch'$  can be trivially transformed into  $Ch''$  such that  $Ch''$  is a desideratum as defined.

<sup>8</sup> The exception is, of course, a situation in which the desiderata that are negatively conjugate are *both* realized. This can happen if the desiderata are comparative or quantitative and do not cover the full underlying order or continuum. For example, given an engine of a certain strength, the size of a car and its speed will be negatively conjugate; still, I may have found a car that happens to be both big enough and fast enough for me, since my desiderata for size and speed cover only certain segments of the continua of both variables.

<sup>9</sup> The alternative conditions of choice can, of course, also be two points on one continuum. The schematic diagram of a bargain situation should not suggest that, wherever possible, bargain situations should not be expressed mathematically in multivariate formulae. To the contrary, modern multivariate analysis may be especially useful in establishing the simultaneous relationship between desiderata and conditions of choice once the underlying characteristic/entity combinations are explicated for the desiderata.

<sup>10</sup> If both characteristics are non-classificatory (viz. comparative or quantitative), the two bargains are: increased  $Ch'_x$  and decreased  $Ch''_y$  ( $B_1$ ) versus increased  $Ch''_x$  and decreased  $Ch'_y$  ( $B_2$ ). If one characteristic is classificatory and the other is non-classificatory, the bargains are:  $Ch'_x$  and decreased  $Ch''_y$  ( $B_1$ ) versus increased  $Ch''_x$  and not- $Ch'_x$ , etc. Since the purely classificatory case is the simplest case, we will confine most of our examples to classificatory characteristics.

<sup>11</sup> There is, of course, no algorithm for stopping this splitting procedure, but in many cases our available knowledge will allow us to differentiate various characteristics and various entities and to decide when we should stop the procedure. The guiding standards are identifiability of characteristic and entity and desirability of the characteristic/entity combination.

<sup>12</sup> For the exceptions, see note 8. It is also important to note that 'established' is here understood as 'tentatively and critically established' in the sense that the likelihood of truth by fiat is purposefully minimized (see Section 6).

<sup>13</sup> Such truncated bargain situations are often greatly aided by the established norms and values of a society. Many norms discourage public recognition of disadvantages of one position and advantages of another. For example, the disadvantages of earning your living by the rules versus the advantages of earning your living criminally are publicly suppressed.

<sup>14</sup> This kind of reconstruction may require the imputation of desiderata; see Section 5.2.4.

<sup>15</sup> Although it can be done, we will not formulate the desiderata strictly according to our own formula by identifying a characteristic and a kind of entity wherever the example is clearly understandable without such a formulation.

<sup>16</sup> This may also hold for paradigmatic (Kuhn, 1970) and programmatic (Lakatos, 1970) reconstructions of scientific development.

<sup>17</sup> This may have an effect on interdisciplinary studies. Assuming that many disciplines deal with desiderata typically 'their own', meta bargain situations will break disciplinary borders. For example, in economics one would have to consider social costs, health costs, psychological costs etc., as well as benefits in these different areas.

<sup>18</sup> The danger frequently associated with the imputation of desiderata (say in connection with welfare economics), viz. the distribution of goods and formulation of policies on the basis of dictated needs, is smaller for bargain situations based on imputed desiderata. The latter may be involved in policy decisions but, expressing negatively conjugate desiderata, may rather mitigate than support enforcement of single imputed desiderata.

<sup>19</sup> Hans Albert (1968) has elaborated Popper's effort particularly in this direction.

<sup>20</sup> The bargain principle possibly depends on additional efforts to reduce achievements by fiat. For example, if desiderata are established by fiat (say through force or authority) then, by artificial selection of desiderata, pricelessness can also be achieved by fiat.

<sup>21</sup> Its immediate value may lie in the application of existing theories to the detailed study of conjugation of desiderata in particular fields. The authors have attempted this for the field of experience (Lindenberg and Oppenheim, forthcoming).

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