CHAPTER III

The Theory of Value

I.

The Nature and Origin of Value

If the requirements for a good, in a time period over which the provident activity of men is to extend, are greater than the quantity of it available to them for that time period, and if they endeavor to satisfy their needs for it as completely as possible in the given circumstances, men feel impelled to engage in the activity described earlier and designated *economizing*. But their perception of this relationship gives rise to another phenomenon, the deeper understanding of which is of decisive importance for our science. I refer to the value of goods.

If the requirements for a good are larger than the quantity of it available, and some part of the needs involved must remain unsatisfied in any case, the available quantity of the good can be diminished by no part of the whole amount, in any way practically worthy of notice, without causing some need, previously provided for, to be satisfied either not at all or only less completely than would otherwise have been the case. The satisfaction of some one human need is therefore dependent on the availability of each concrete, practically significant, quantity of all goods subject to this quantitative relationship. If economizing men become aware of this circumstance (that is, if they perceive that the satisfaction of one of their needs, or the greater or less completeness of its satisfaction, is dependent on their command of each portion of a quantity of goods or on each individual good subject to the above quantitative relationship) these goods attain for them the significance we call *value*. Value is thus the importance that individual goods or quantities of goods attain for us because we are conscious of being dependent on command of them for the satisfaction of our needs.[1]

The value of goods, accordingly, is a phenomenon that springs from the same source as the economic character of goods—that is, from the relationship, explained earlier, between requirements for and available quantities of goods.[2] But there is a difference between the two phenomena. On the one hand, perception of this quantitative relationship stimulates our provident activity, thus causing goods subject to this relationship to become objects of our economizing (i.e., economic goods). On the other hand, perception of the same relationship makes us aware

---

[1]See Appendix C (p. 292) for the material originally appearing here as a footnote.—TR.

[2]In the preceding chapter we were occupied with an evaluation of the attempts that have been made to trace the differences between economic and non-economic goods back to economic goods being products of labor and objects of exchange and to non-economic goods being "free gifts of nature" and not objects of exchange. We reached the conclusion that the economic character of goods is not dependent on either of these two factors. The same thing is true of value. Like the economic character of goods, value is he result of the relationship between requirements and available quantities of goods to which reference has already been made several times. The same reasons that argue against defining economic goods as "products of labor" or "objects of exchange," also rule out these criteria whenever it is a question of distinguishing between goods that do and goods that do not have value for us.

of the significance that command of each concrete unit[3] of the available quantities of these goods has for our lives and well-being, thus causing it to attain *value* for us.[4] Just as a penetrating investigation of mental processes makes the cognition of external things appear to be merely our consciousness of the impressions made by the external things upon our persons, and thus, in the final analysis, merely the cognition of states of our own persons, so too, in the final analysis, is the importance that we attribute to things of the external world only an outflow of the importance to us of our continued existence and development (life and well-being). Value is therefore nothing inherent in goods, no property of them, but merely the importance that we first attribute to the satisfaction of our needs, that is, to our lives and well-being, and in consequence carry over to economic goods as the exclusive causes of the satisfaction of our needs.

From this, it is also clear why only economic goods have value to us, while goods subject to the quantitative relationship responsible for non-economic character cannot attain value at all. The relationship responsible for the non-economic character of goods consists in requirements for goods being smaller than their available quantities. Thus there are always portions of the whole supply of non-economic goods that are related to no unsatisfied human need, and which can therefore lose their goods-character without impinging in any way on the satisfaction of human needs. Hence no satisfaction[5] depends on our control of any one of the units of a good having non-economic

---

[3]The confusion of "use value" with "utility," with "degree of utility," or with "estimated utility," arises from the doctrine of the *abstract* value of goods (see Karl Heinrich Rau, *Grundsätze der Volkswirthschaftslehre*, Heidelberg, 1847, pp. 79ff.). A species can have useful properties that make its concrete units suitable for the satisfaction of human needs. Different species can have different degrees of utility in a given use (beech wood and willow wood as fuel, etc.). But neither the utility of a species nor the varying degree of utility of different species or subspecies can be called "value." Not species as such, but only concrete things are *available* to economizing individuals. Only the latter, therefore, are *goods*, and only goods are *objects of our economizing* and of our *valuation*. See O. Michaelis, "Das Kapital vom Werthe," *Vierteljahrschrift für Volkswirthschaft*, I (1863), 16ff.

[4]The remainder of this paragraph is a footnote in the original.—TR.

[5]"*Bedürfnissbefriedigung*," literally "need-satisfaction," has been translated throughout by the word "satisfaction."—TR.

character, and from this it follows that definite quantities of goods subject to this quantitative relationship (non-economic goods) also have no value to us.

If an inhabitant of a virgin forest has several hundred thousand trees at his disposal while he needs only some twenty a year for the full provision of his requirements for timber, he will not consider himself injured in any way, in the satisfaction of his needs, if a forest fire destroys a thousand or so of the trees, provided he is still in a position to satisfy his needs as completely as before pith the rest. In such circumstances, therefore, the satisfaction of none of his needs depends upon his command of any single tree, and for this reason a tree also has no value to him.

But suppose there are also in the forest ten wild fruit trees whose fruit is consumed by the same individual. Suppose too, that the amount of fruit available to him is not larger than his requirements. Certainly then, not a single one of these fruit trees can be burned in the fire without causing him to suffer hunger as a result, or without at least causing him to be unable to satisfy his need for fruit as completely as before. For this reason each one of the fruit trees has value to him.

If the inhabitants of a village need a thousand pails of water daily to meet their requirements completely, and a brook is at their disposal with a daily flow of a hundred thousand pails, a concrete portion of this quantity of water, one pail for instance, will have no value to them, since they could satisfy their needs for water just as completely if this partial amount were removed from their command, or if it were altogether to lose its goods-character. Indeed, they will let many thousands of pails of this good flow to the sea every day without in any way impairing satisfaction of their need for water. As long as the relationship responsible for the non-economic character of water continues, therefore, the satisfaction of none of their needs will depend upon their command of any one pail of water in such a way that the satisfaction of this need would not take place if they were not in a position to use that particular pail. For this reason a pail of water has no value to them.

If, on the other hand, the daily flow of the brook were to fall to five hundred pails daily due to an unusual drought or other act of nature, and the inhabitants of the village had no other source of supply, the result would be that the total quantity then available would be insufficient to satisfy their full needs for water, and they could not venture to lose any part of that quantity, one pail for instance, without impairing the satisfaction of their needs. Each concrete portion of the quantity at their disposal would certainly then have value to them.

Non-economic goods, therefore, not only do not have exchange value, as has previously been supposed in the literature of our subject, but no value at all, and hence no use value. I shall attempt to explain the relationship between exchange value and use value in greater detail later, when I have dealt with some of the principles relevant to their consideration. For the time being, let it be observed that exchange value and use value are two concepts subordinate to the general concept of value, and hence coordinate in their relations to each other. All that I have already said about value in general is accordingly as valid for use value as it is for exchange value.

If then, a large number of economists attribute use value (though not exchange value) to non-economic goods, and if some recent English and French economists even wish to banish the concept use value entirely from our science and see it replaced with the concept utility,[6] their desire rests on a mis-

---

[6]Menger's use of the term "utility" may prove confusing to modern readers unless the meaning he attaches to it is kept constantly in mind. This meaning does not permit him to use the term in designating the concept now called "marginal utility." A thing has "utility" (in Menger's sense of the term) if all the available units of the thing together yield a total utility (in our sense of the term) greater than zero even if the thing's marginal utility (in our sense) is zero. In general, he contends that the concept "utility" is entirely objective and lacking in psychological content. He pictures it as an abstract relation between a species of goods and a human need (in a general sense as distinguished from the "concrete needs" of an individual—see note 4 of Chapter II). Utility is therefore, according to Menger, merely a prerequisite of goods-character (and hence of economic character), but has no quantitative relationship to value. For this reason, he repudiates any identification of "utility" with "use value" (see also note 3 of this chapter and Appendices C, D, and G). It is of course obvious that his lack of the term "marginal utility" was no barrier to his expression and elaboration of the concept.—TR.

understanding of the important difference between the two concepts and the actual phenomena underlying them.

Utility is the capacity of a thing to serve for the satisfaction of human needs, and hence (provided the utility is *recognized*) it is a general prerequisite of goods-character. Non-economic goods have utility as well as economic goods, since they are just as capable of satisfying our needs. With these goods also, their capacity to satisfy needs must be *recognized* by men, since they could not otherwise acquire goods-character. But what distinguishes a non-economic good from a good subject to the quantitative relationship responsible for economic character is the circumstance that the satisfaction of human needs does not depend upon the availability of concrete quantities of the former but does depend upon the availability of concrete quantities of the latter. For this reason the former possesses utility, but only the latter, in addition to utility, possesses also that significance for us that we call value.

Of course the error underlying the confusion of utility and use value has had no influence on the practical activity of men. At no time has an economizing individual attributed value under ordinary circumstances to a cubic foot of air or, in regions abounding in springs, to a pint of water. The practical man distinguishes very well the capacity of an object to satisfy one of his needs from its value. But this confusion has become an enormous obstacle to the development of the more general theories of our science.[7]

The circumstance that a good has value to us is attributable, as we have seen, to the fact that command of it has for us the significance of satisfying a need that would not be provided for if we did not have command of the good. Our needs, at any rate in part, at least as concerns their origin, depend upon our wills or on our habits. Once the needs have come into existence, however, there is *no further arbitrary element* in the value goods have for us, for their value is then the necessary consequence of our knowledge of their importance for our lives or well-being. It would be impossible, therefore, for us to regard a

[7]It was this error that misled Proudhon, *op. cit.*, pp. 59ff., into stating that there is an irreconcilable contradiction between use value and exchange value.

good as valueless when we know that the satisfaction of one of our needs depends on having it at our disposal. It would also be impossible for us to attribute value to goods when we know that we are not dependent upon them for the satisfaction of our needs. The value of goods is therefore nothing arbitrary, but always the necessary consequence of human knowledge that the maintenance of life, of well-being, or of some ever so insignificant part of them, depends upon control of a good or a quantity of goods.

Regarding this *knowledge*, however, men can be in error about the value of goods just as they can be in error with respect to all other objects of human knowledge. Hence they may attribute value to things that do not, according to economic considerations, possess it in reality, if they mistakenly assume that the more or less complete satisfaction of their needs depends on a good, or quantity of goods, when this relationship is really nonexistent. In cases of this sort we observe the phenomenon of *imaginary* value.

The value of goods arises from their relationship to our needs, and is not inherent in the goods themselves. With *changes in this relationship*, value arises and disappears. For the inhabitants of an oasis, who have command of a spring that abundantly meets their requirements for water, a certain quantity of water at the spring itself will have no value. But if the spring, as the result of an earthquake, should suddenly decrease its yield of water to such an extent that the satisfaction of the needs of the inhabitants of the oasis would no longer be fully provided for, each of their concrete needs for water would become dependent upon the availability of a definite quantity of it, and such a quantity would immediately attain value for each inhabitant. This value would, however, suddenly disappear if the old relationship were reestablished and the spring regained its former yield of water. A similar result would ensue if the population of the oasis should increase to such an extent that the water of the spring would no longer suffice for the satisfaction of all needs. Such a change, due to the increase of consumers, might even take place with a certain regularity at such times as the oasis was visited by numerous caravans.

Value is thus nothing inherent in goods, no property of them, nor an independent thing existing by itself. It is a judgment economizing men make about the importance of the goods at their disposal for the maintenance of their lives and well-being. Hence value does not exist outside the consciousness of men. It is, therefore, also quite erroneous to call a good that has value to economizing individuals a "value," or for economists to speak of "values" as of independent real things, and to objectify value in this way. For the entities that exist objectively are always only particular things or quantities of things, and their value is something fundamentally different from the things themselves; it is a judgment made by economizing individuals about the importance their command of the things has for the maintenance of their lives and well-being. Objectification of the value of goods, which is entirely *subjective* in nature, has nevertheless contributed very greatly to confusion about the basic principles of our science.

2.

The Original Measure of Value

In what has preceded, we have directed our attention to the nature and ultimate causes of value—that is, to the factors common to value in all cases. But in actual life, we find that the values of different goods are very different in magnitude, and that the value of a given good frequently changes. An investigation of the causes of differences in the value of goods and an investigation of the measure of value are the subjects that will occupy us in this section. The course of our investigation is determined by the following consideration.

The goods at our disposal have no value to us for their own sakes. On the contrary, we have seen that only the satisfaction of our needs has importance to us directly, since our lives and well-being are dependent on it. But I have also explained that men attribute this importance to the goods at their disposal if the goods ensure them the satisfaction of needs that would not be provided for if they did not have command of them—that is, they attribute this importance to economic goods. In the value of goods, therefore, we always encounter merely the significance we assign to the satisfaction of our needs—that is, to our lives and well-being. If I have adequately described the nature of the value of goods, if it has been established that in the final analysis only the satisfaction of our needs has importance to us, and if it has been established too that the value of all goods is merely an imputation of this importance to economic goods, then the *differences* we observe in the magnitude of value of different goods in actual life can only be founded on differences in the magnitude of importance of the satisfactions that depend on our command of these goods. To reduce the differences that we observe in the magnitude of value of different goods in actual life to their ultimate causes, we must therefore perform a double task. We must investigate: (1) to what extent different satisfactions have different degrees of importance to us (subjective factor), and (2) which satisfactions of concrete needs depend, in each individual case, on our command of a particular good (objective factor). If this investigation shows that separate satisfactions of concrete needs have different degrees of importance to us, and that these satisfactions, of such different degrees of importance, depend on our command of particular economic goods, we shall have solved our problem. For we shall have reduced the economic phenomenon whose explanation we stated to be the central problem of this investigation to its ultimate causes. I mean differences in the magnitude of value of goods.

With an answer to the question as to the ultimate causes of differences in the value of goods, a solution is also provided to the problem of how it comes about that the value of each of the various goods is itself subject to change. All change consists of nothing but differences through time. Hence, with a knowledge of the ultimate causes of the differences between the members of a set of magnitudes in general, we also obtain a deeper insight into their changes.

A. *Differences in the magnitude of importance of different satisfactions (subjective factor).*

As concerns the differences in the importance that different satisfactions have for us, it is above all a fact of the most common experience that the satisfactions of greatest importance to men are usually those on which the maintenance of life depends, and that other satisfactions are graduated in magnitude of importance according to the degree (duration and intensity) of pleasure dependent upon them. Thus if economizing men must choose between the satisfaction of a need on which the maintenance of their lives depends and another on which merely a greater or less degree of well-being is dependent, they will usually prefer the former. Similarly, they will usually prefer satisfactions on which a higher degree of their well-being depends. With the same intensity, they will prefer pleasures of longer duration to pleasures of shorter duration, and with the same duration, pleasures of greater intensity to pleasures of less intensity.

The maintenance of our lives depends on the satisfaction of our need for food, and also, in our climate, on clothing our bodies and having shelter at our disposal. But merely a higher degree of well-being depends on our having a coach, a chessboard, etc. Thus we observe that men fear the lack of food, clothing, and shelter much more than the lack of a coach, a chessboard, etc. They also attribute a substantially higher importance to securing satisfaction of the former needs than they attribute to the satisfaction of needs on which, as in the cases just mentioned, only a passing enjoyment or increased comfort (that is, merely a higher degree of their well-being) depends. But these satisfactions also have very different degrees of importance. The maintenance of life depends neither on having a comfortable bed nor on having a chessboard, but the use of these goods contributes, and certainly in very different degrees, to the increase of our well-being. Hence there can also be no doubt that, when men have a choice between doing without a comfortable bed or doing without a chessboard, they will forgo the latter much more readily than the former.

We have thus seen that different satisfactions are very unequal in importance, since some are satisfactions that have the full importance to men of maintaining their lives, others are satisfactions that determine their well-being in a higher degree, still others in a less degree, and so on down to satisfactions on which some insignificant passing enjoyment depends. But careful examination of the phenomena of life shows that these differences in the importance of different satisfactions can be observed not only with the satisfaction of needs of *different kinds* but also with the *more or less complete* satisfaction of one and the same need.

The lives of men depend on satisfaction of their need for food in general. But it would be entirely erroneous to regard all the foods they consume as being necessary for the maintenance of their lives or even their health (that is, for their continuing well-being). Everyone knows how easy it is to skip one of the usual meals without endangering life or health. Indeed, experience shows that the quantities of food necessary to maintain life are only a small part of what well-to-do persons as a rule consume, and that men even take much more food and drink than is necessary for the full preservation of health. Men consume food for several reasons: above all, they take food to maintain life; beyond this, they take further quantities to preserve health, since a diet sufficient merely to maintain life is too sparing, as experience shows, to avoid organic disorders; finally, having already consumed quantities sufficient to maintain life and preserve health, men further partake of foods simply for the pleasure derived from their consumption.

The separate concrete acts of satisfying the need for food accordingly have very different degrees of importance. The satisfaction of every man's need for food up to the point where his life is thereby assured has the full importance of the maintenance of his life. Consumption exceeding this amount, again up to a certain point, has the importance of preserving his health (that is, his continuing well-being). Consumption extending beyond even this point has merely the importance—as observation shows—of a progressively weaker pleasure, until it finally reaches a certain limit at which satisfaction of the need for food is so complete that every further intake of food contributes neither to the maintenance of life nor to the preservation of health—nor does it even give pleasure to the consumer, becoming first a matter of indifference to him, eventually a cause of pain, a danger to health, and finally a danger to life itself.

Similar observations can be made with respect to the more or less complete satisfaction of all other human needs. A room, or at least some place to sleep protected from the weather, is necessary in our climate for the maintenance of life, and reasonably spacious quarters for the preservation of health. In addition, however, men usually possess further accommodations, if they have the means, merely for purposes of pleasure (drawing rooms, ballrooms, playrooms, pavilions, hunting lodges, etc.). Thus it is not difficult to recognize that the separate concrete acts of satisfying the need for shelter have very different degrees of importance. Up to a certain point, our lives depend on satisfying our need for shelter. Beyond this, our health depends on a more complete satisfaction. And still further attempts to satisfy the same need will bring at first a greater and then a smaller enjoyment, until eventually a point can be conceived, for each person, at which the further *employment* of available accommodations would become a matter of complete indifference to him, and finally even burdensome.

It is possible, therefore, with respect to the more or less complete satisfaction of one and the same need, to make an observation similar to the one made earlier with respect to the different needs of men. We saw earlier that the different needs of men are very unequal in importance of satisfaction, being graduated from the importance of their lives down to the importance they attribute to a small passing enjoyment. We see now, in addition, that the satisfaction of any one specific need has, up to a certain degree of completeness, relatively the highest importance, and that further satisfaction has a progressively smaller importance, until eventually a stage is reached at which a more complete satisfaction of that particular need is a matter of indifference. Ultimately a stage occurs at which every act having the external appearance of a satisfaction of this need not only has no further importance to the consumer but is rather a burden and a pain.

In order to restate the preceding argument numerically, to facilitate comprehension of the subsequent difficult investigation, I shall designate the importance of satisfactions on which life depends with 10, and the smaller importance of the other satisfactions successively with 9, 8, 7, 6, etc. In this way we obtain a scale of the importance of *different* satisfactions that begins with 10 and ends with 1.

Let us now, for each of these different satisfactions, give numerical expression to the additional importance, diminishing by degrees from the figure indicating the extent to which the particular need is already satisfied, of further acts of satisfaction of that particular need. For satisfactions on which, up to a certain point, our lives depend, and on which, beyond this point, a well-being is dependent that steadily decreases with the degree of completeness of the satisfaction already achieved, we obtain a scale that begins with 10 and ends with 0. Similarly, for satisfactions whose highest importance is 9, we obtain a scale that begins with this figure and also ends with 0, and so on.

The ten scales obtained in this way are given in the following table:[8]

---

[8]The Roman numerals in the top line of the table are symbols designating the different commodities (or classes of commodities) consumed by a single individual. The successive figures down each vertical column represent successive additions to total satisfaction resulting from increased consumption of the designated commodity.

Menger does not, however, explicitly name his independent variable at the outset, and the reader is left to find it for himself in the discussion that follows. At times, Menger states vaguely that the successive additions to total satisfaction are the result of successive "acts of satisfaction," but later (p. 130) he makes it clear that they are the result of successive equal additions to the quantity of the commodity consumed. This is not the end of the matter, however. In the paragraph following the table, Menger compares the figures of one column with those of another column when he argues that, after a fifth unit (?) of food has been consumed, the individual of the table faces the fact that a sixth unit of food will give him less additional satisfaction than would be given by a first unit of tobacco, and that he must therefore bring his consumption of the two commodities into equilibrium. Such a comparison is not valid unless a unit of tobacco and a unit of food are so defined that both are to be obtained with an equal expenditure of some other resource (such as labor or money), since otherwise the two units would not constitute alternatives between which the individual must choose.

A minimum model meeting Menger's discussion requires, therefore, the following assumptions:

(1) The economizing individual of the table is able not only to rank his satisfactions but also to assign cardinal indices to their relative degrees of importance. In other words, he is able to compare different satisfactions in terms of a homogeneous unit of satisfaction. (See also the summary of principles on p. 139 and the discussion in Ch. IV, Sec. 2.)

I	II	III	IV	V	VI	VII	VIII	IX
10	9	8	7	6	5	4	3	2
9	8	7	6	5	4	3	2	1
8	7	6	5	4	3	2	1	0
7	6	5	4	3	2	1	0	
6	5	4	3	2	1	0		
5	4	3	2	1	0			
4	3	2	1	0				
3	2	1	0					
2	1	0						
1	0							
0								

Suppose that the scale in column I expresses the importance to some one individual of satisfaction of his need for food, this importance diminishing according to the degree of satisfaction already attained, and that the scale in column V expresses similarly the importance of his need for tobacco. It is evident that satisfaction of his need for food, up to a certain degree of completeness, has a decidedly higher importance to this individual than satisfaction of his need for tobacco. But if his need for food is already satisfied up to a certain degree of completeness (if, for example, a further satisfaction of his need for food has only the importance to him that we designated numerically by the figure 6), consumption of tobacco begins to have the same importance to him as further satisfaction of his need for food. The individual will therefore endeavor, from this point on, to bring the satisfaction of his need for tobacco into equilibrium with satisfaction of his need for food. Although satisfaction of his need for food in general has a substantially higher importance to the individual in question than satisfaction of his need for tobacco, with the progressive satisfaction of the former a stage nevertheless comes (as is illustrated in the table) at which further acts of satisfaction of his need for food have a smaller

(2) The satisfaction from the consumption of each commodity is independent of the amount of consumption of other commodities.

(3) Successive additions to total satisfaction in each vertical column are the result of successive equal additions to the amount of the commodity consumed.

(4) Additional amounts of the different commodities are all to be obtained by the individual with an equal expenditure of some other resource.—TR.

importance to him than the first acts of satisfying his need for tobacco, which although less important in general is at this stage still wholly unsatisfied.

By this reference to an ordinary phenomenon of life, I believe I have clarified satisfactorily the meaning of the numbers in the table, which were chosen merely to facilitate demonstration of a difficult and previously unexplored field of psychology.

The varying importance that satisfaction of separate concrete needs has for men is not foreign to the consciousness of any economizing man, however little attention has hitherto been paid by scholars to the phenomena here treated. Wherever men live, and whatever level of civilization they occupy, we can observe how economizing individuals weigh the relative importance of satisfaction of their various needs in general, how they weigh especially the relative importance of the separate acts leading to the more or less complete satisfaction of each need, and how they are finally guided by the results of this comparison into activities directed to the fullest possible satisfaction of their needs (economizing). Indeed, this weighing of the relative importance of needs—this choosing between needs that are to remain unsatisfied and needs that are, in accordance with the available means, to attain satisfaction, and determining the degree to which the latter are to be satisfied—is the very part of the economic activity of men that fills their minds more than any other, that has the most far-reaching influence on their economic efforts, and that is exercised almost continually by every economizing individual. But human knowledge of the different degrees of importance of satisfaction of different needs and of separate acts of satisfaction is also the first cause of differences in the value of goods.

B. *The dependence of separate satisfactions on particular goods (objective factor).*

If, opposite each particular concrete need of men, there was but a single available good, and that good was suitable exclusively for the satisfaction of the one need (so that, on the one side, satisfaction of the need would not take place if the particular good were not at our disposal, and on the other side, the good would be capable of serving for the satisfaction of that concrete need and no other) the determination of the value of the good would be very easy; it would be equal to the importance we attribute to satisfaction of that need. For it is evident that whenever we are dependent, in satisfying a given need, on the availability of a certain good (that is, whenever this satisfaction would not take place if we did not have the good at our disposal) and when that good is, at the same time, not suitable for any other useful purpose, it can attain the full but never any other importance than that which the given satisfaction has for us. Hence, according to whether the importance of the given satisfaction to us, in a case such as this, is greater or smaller, the value of the particular good to us will be greater or smaller. If, for instance, a myopic individual were cast away on a lonely island and found among the goods he had salvaged just one pair of glasses correcting his myopia but no second pair, there is no doubt that these glasses would have the full importance to him that he attributes to corrected eye-sight, and just as certainly no greater importance, since the glasses would hardly be suitable for the satisfaction of other needs.

But in ordinary life the relationship between available goods and our needs is generally much more complicated. Usually not a single good but a *quantity* of goods stands opposite not a single concrete need but a *complex* of such needs. Sometimes a larger and sometimes a smaller number of satisfactions, of very different degrees of importance, depends on our command of a given quantity of goods, and each one of the goods has the ability to produce these satisfactions differing so greatly in importance.

An isolated farmer, after a rich harvest, has more than two hundred bushels of wheat at his disposal. A portion of this secures him the maintenance of his own and his family's lives until the next harvest, and another portion the preservation of health; a third portion assures him seed-grain for the next seeding; a fourth portion may be employed for the production of beer, whiskey, and other luxuries; and a fifth portion may be used for the fattening of his cattle. Several remaining bushels, which he cannot use further for these more important satisfactions, he allots to the feeding of pets in order to make the balance of his grain in some way useful.

The farmer is, therefore, dependent upon the grain in his possession for satisfactions of very different degrees of importance. At first he secures with it his own and his family's lives, and then his own and his family's health. Beyond this, he secures with it the uninterrupted operation of his farm, an important foundation of his continuing welfare. Finally, he employs a portion of his grain for purposes of pleasure, and in so doing is again employing his grain for purposes that are of very different degrees of importance to him.

We are thus considering a case—one that is typical of ordinary life—in which satisfactions of very different degrees of importance depend on the availability of a quantity of goods that we shall assume, for the sake of greater simplicity, to be composed of completely homogeneous units. The question that now arises is: what, under the given conditions, is the value of a certain portion of the grain to our farmer? Will the bushels of grain that secure his own and his family's lives have a higher value to him than the bushels that enable him to seed his fields? And will the latter bushels have a greater value to him than the bushels of grain he employs for purposes of pleasure?

No one will deny that the satisfactions that seem assured by the various portions of the available supply of grain are very unequal in importance, ranging from an importance of 10 to an importance of 1 in terms of our earlier designations. Yet no one will be able to maintain that some bushels of grain (those, for instance, with which the farmer will nourish himself and his family till the next harvest) will have a higher value to him than other bushels of the same quality (those, for instance, from which he will make luxury beverages).

In this and in every other case where satisfactions of different degrees of importance depend on command of a given quantity of goods, we are, above all, faced with the difficult question: which particular satisfaction is dependent on a particular portion of the quantity of goods in question?

The solution of this most important question of the theory of value follows from reflection upon human economy and the nature of value.

We have seen that the efforts of men are directed toward fully satisfying their needs, and where this is impossible, toward satisfying them *as completely as possible*. If a quantity of goods stands opposite needs of varying importance to men, they will first satisfy, or provide for, those needs whose satisfaction has the greatest importance to them. If there are any goods remaining, they will direct them to the satisfaction of needs that are next in degree of importance to those already satisfied. Any further remainder will be applied consecutively to the satisfaction of needs that come next in degree of importance.[9]

If a good can be used for the satisfaction of several different kinds of needs, and if, with respect to each kind of need, successive single acts of satisfaction each have diminishing importance according to the degree of completeness with which the need in question has already been satisfied, economizing men will first employ the quantities of the good that are available to them to secure those acts of satisfaction, without regard to the kind of need, which have the highest importance for them. They will employ any remaining quantities to secure satisfactions of concrete needs that are next in importance, and any further remainder to secure successively less important satisfactions. The end result of this procedure is that the most important of the satisfactions that cannot be achieved have the same importance for every kind of need, and hence that all needs are being satisfied up to an equal degree of importance of the separate acts of satisfaction.

We have been asking what value a given unit of a quantity of goods possessed by an economizing individual has for him. Our question can be more precisely stated with respect to the nature of value if it is stated in this form: which satisfaction would not be attained if the economizing individual did not have the given unit at his disposal—that is, if he were to have command of a total amount smaller by that one unit? The answer, which follows from the previous exposition of the nature of human economy, is that every economizing individual would in this case, with the quantity of goods yet remaining to him, by all means satisfy his more important needs and forgo satisfaction of the less important ones. Thus, of all the satisfac-

[9]The next paragraph appears here as a footnote in the original.—TR.

tions previously obtained, only the one that has the smallest importance to him would now be unattained.

Accordingly, in every concrete case, of all the satisfactions secured by means of the whole quantity of a good at the disposal of an economizing individual, only those that have the least importance to him are dependent on the availability of a given portion of the whole quantity. Hence the value to this person of any portion of the whole available quantity of the good is equal to the importance to him of the satisfactions of least importance among those assured by the whole quantity and achieved with an equal portion.[10]

Suppose that an individual needs 10 discrete units (or 10 measures) of a good for the full satisfaction of all his needs for that good, that these needs vary in importance from 10 to 1, but that he has only 7 units (or only 7 measures) of the good at his command. From what has been said about the nature of human economy it is directly evident that this individual will satisfy only those of his needs for the good that range in importance from 10 to 4 with the quantity at his command (7 units), and that the other needs, ranging in importance from 3 to 1, will remain unsatisfied. What is the value to the economizing individual in question of one of his 7 units (or measures) in this case? According to what we have learned about the nature of the value of goods, this question is equivalent to the question: what is the importance of the satisfactions that would be unattained if the individual concerned were to have only 6 instead of 7 units (or measures) at his command. If some accident were to deprive him of one of his seven goods (or measures), it is clear that the person in question would use the remaining 6 units to satisfy the more important needs and would neglect the least important one. Hence the result of losing one good (or one measure) would be that only the least of all the satisfactions assured by the whole available quantity of seven units (i.e., the satisfaction whose importance was designated as 4) would be lost, while those satisfactions (or acts of satisfying needs) whose importance ranges from 10 to 5 would take place as before. In this case, therefore, only a satisfaction whose importance was designated by 4 will depend on command of a sin-

[10]The next paragraph appears here as a footnote in the original.—TR.

gle unit (or measure), and as long as the individual in question continues to have command of 7 units (or measures) of the good, the value of each unit (or measure) will be equal to the importance of this satisfaction. For it is only this satisfaction with an importance of 4 that depends on one unit (or measure) of the available quantity of the good. Other things being equal, if only 5 units (or measures) of the good were available to the economizing individual in question, it is evident that—as long as this economic situation persisted—each discrete unit or partial quantity of the good would have an importance to him expressed numerically by the figure 6. If he had 3 units, each one would have an importance to him expressed numerically by the figure 8. Finally, if he had but a single good, its importance would be equal to 10.

Examination of a number of particular cases will fully elucidate the principles here set forth, and I do not wish to shirk this important task, even though I know that I shall appear tiresome to some readers. Following in the path of Adam Smith, I will risk some tediousness to gain clarity of exposition.

To begin with the simplest case, suppose that an isolated economizing individual inhabits a rocky island in the sea, that he finds only a single spring on the island, and that he is exclusively dependent upon it for satisfaction of his need for fresh water. Assume that this isolated individual needs: (a) one unit of water daily for the maintenance of his life, (b) nineteen units for the animals whose milk and meat provide him with the most necessary means of subsistence, (c) forty units, partly so that he may consume the full quantity necessary to the maintenance not only of his life but also his health; partly, to the extent necessary for the continuance of his health and general well-being, to clean his body, his clothes, and his implements; and partly for the support of some additional animals whose milk and meat he finds needful, and finally (d) forty additional units of water daily, partly for his flower garden, and partly for some animals, which he keeps, not for the maintenance of his life and health, but simply for the purpose of a more varied diet, or for mere companionship. Assume too that he does not know how to employ more than this total of one hundred units of water.

As long as the spring provides water so copiously that he can not only satisfy all his needs for water but let several thousand pails flow into the sea every day, and thus as long as the satisfaction of none of his needs depends upon whether he has one unit more or one unit less (e.g., one pail full) at his disposal, a unit of water will, as we have seen, have neither economic character nor value to him, and thus there can be no question of the magnitude of its value. But if some natural event should now suddenly cause the spring to become partially exhausted, and if our island dweller should, as a result, have only 90 units of water at his disposal while he continues to require 100 units for the full satisfaction of his needs, it is clear that some satisfaction would then be dependent on the availability of each portion of the whole supply of water, and hence that each particular unit of water would attain that significance for him that we call value.

If we now, however, ask which of his satisfactions is, in this case, dependent on a given portion of the 90 units of water available to him, on 10 units for instance, our question takes the following form: which satisfactions of our isolated individual would not be attained if he did not have this given portion of the supply at his disposal—that is, if he should have only 80 instead of go units?

Nothing is more certain than that our economizing individual would continue, even if he had only 80 units of water available daily, to consume the quantity necessary for the preservation of his life, and as much more as will maintain as many animals as are indispensable for keeping him alive. Since these purposes require only 20 units of water daily, he would apply the remaining 60 units first to the satisfaction of all the needs on which his health and his continuing general well-being depend. Since for this purpose he requires a total of only 40 pails of water daily, he would have 20 units left, which could be employed for purposes of mere enjoyment. The last 20 units could thus maintain either his flower garden or the animals he owns purely for pleasure. He would certainly choose, from the two satisfactions, the one appearing to him to be the more important, and would neglect the less important one.

When our Crusoe has 90 units of water available to him daily, the question whether he will continue to have this quantity or 10 units less at his disposal is, for him, equivalent to the question whether or not he will be in a position to continue to satisfy the least important needs that are being satisfied with 10 units of water daily. As long, therefore, as a total quantity of go units continues at his disposal, 10 units of water will have only the importance of these least important satisfactions—that is, only the importance of relatively insignificant enjoyments.

Suppose now that the spring supplying the individual of the isolated economy with water is even further exhausted, to such an extent indeed, that only forty units of water are available to him daily. Now again, just as before, the maintenance of his life and well-being will depend on the availability of this whole quantity of water. But the situation has changed in an important respect. If earlier some one of his pleasures or comforts depended on the availability of each, in any way practically significant, part of the whole supply (one unit, for instance), now the question of a unit more or a unit less of water being available per day is, for our Crusoe, already a question of the more or less complete maintenance of his health or general well-being. In other words, if he should lose one unit, the effect would be that he could no longer satisfy one of the needs on whose satisfaction the preservation of his health and his continuing general well-being depend. If a single pail of water had no value whatsoever to our Crusoe as long as he had several hundred pails at his disposal daily, and if later, when he had only go units daily, each unit had only the importance of some particular enjoyment dependent upon it, now each part of the forty units still available has the importance to him of much more important satisfactions. For now the satisfaction of needs whose non-satisfaction impairs his health and continuing well-being depends on each one of the forty units. But the value of each quantity of goods is equal to the importance of the satisfactions that depend on it. If the value of one unit of water to our Crusoe was at first equal to zero, and in the second case equal to one, it would now already be expressed numerically by something like the figure six.

Suppose, with continued drought, the spring should become more and more exhausted, and finally yield just the amount of water daily that is required barely to support the life of this isolated individual (hence in our case approximately 20 units, since he requires that much for himself and for those animals of his herd without whose milk and meat he cannot keep alive). In such a case, it is clear that each practically significant quantity of water available to him would have the full importance of the maintenance of his life. Hence a unit of water would have a still higher value than before, a value expressed numerically by the figure 10.

Thus, in the first of our cases, we saw that as long as the individual had several thousand pails of water at his disposal daily, a small portion of this quantity, one pail for instance, had no value to him at all because no kind of satisfaction depended on any single pail. In the second case, we saw that a concrete unit of the go units available to him already had the importance of certain minor enjoyments, since the least important satisfactions that depended on go units were these enjoyments. In the third case, when only 40 units of water a day were at his disposal, we saw that more important satisfactions were dependent on each concrete unit. In the fourth case, still more important satisfactions became dependent on each concrete unit. In each succeeding case, we saw the value of the remaining units rising successively as more important satisfactions became dependent on them.

To pass on to more complicated (social) relationships, suppose that a sailing ship still has 20 days of sailing to reach land, that by some accident its stores of food are almost completely lost, and that only such a quantity of some one variety of food, biscuits for instance, is left for each of the shipmates as is just sufficient for the preservation of his life for the 20 days. This is a case in which given needs of the persons on the sailing ship stand opposite command of just the precise quantity of a given good that makes the satisfaction of these needs wholly dependent on the available quantity of the good. If it is assumed that the lives of the voyagers can be maintained only if each of them consumes a half pound of biscuits daily, and that each voyager has actual possession of 10 pounds of biscuits, then this quantity of food will have for each voyager the full importance of maintaining his life. Under such conditions, no one who prizes his own life at all could be prevailed upon to surrender this quantity of goods, or even any appreciable part of it, for any goods other than foodstuffs, even for the most valuable goods of ordinary life. If, for example, a rich man travelling on the boat should offer a pound of gold for the same weight of biscuits to alleviate the pangs of hunger inevitable with such scant rations, he would find none of his shipmates ready to accept such a bargain.

Suppose next that the voyagers on the ship have command of another five pounds of ship's biscuits each, in addition to the 10 pounds already mentioned. In this case their lives would no longer depend on their command of a single pound of biscuits, since one pound could be withdrawn from their control, or exchanged by them for goods other than foodstuffs, without endangering their lives. Even though their very lives would no longer depend on one pound of the food, a pound of it would nevertheless constitute a protection against the pangs of hunger, as well as a means to the preservation of their health, since such scanty nourishment, continued for twenty days, as would be the fare of all persons having only ten pounds of biscuits at their disposal, would unquestionably have an injurious effect on their well-being. Under such circumstances, although a single pound of biscuits would no longer have the importance to them of maintaining their lives, it would nevertheless have the importance everyone attaches to the preservation of his health and well-being, insofar as these depend on a single pound of biscuits.

Let us assume, finally, that the galley of the ship has been completely denuded of all its food stores; that the voyagers are also without any food of their own; that the ship is laden with a cargo of several thousand hundred-weight of biscuits; and that the captain of the ship, in consideration of the unfortunate situation of the voyagers as a result of this calamity, authorizes everyone to nourish himself at will with biscuits. The voyagers will, of course, take the biscuits to still their hunger. But no one will doubt that a palatable piece of meat would, in such a case, have considerable value to a voyager whose entire fare for twenty days would otherwise consist of biscuits alone, while a pound of biscuits would have an extraordinarily small value, and perhaps no value at all.

Why did command of a pound of biscuits have the full importance of maintaining his life to each voyager in the first of these cases, still a very great importance in the second case, but no importance whatsoever, or at any rate only an exceedingly slight importance, in the third case?

The needs of the voyagers remained the same in all three cases, since neither their personalities nor their requirements changed. What did change, however, was the quantity of food standing opposite these requirements in each case. Opposite identical requirements for food on the part of the voyagers, there were ten pounds of food per person in the first case, a larger quantity in the second case, and a still larger quantity in the third case. Hence, from one case to the next, the importance of the satisfactions that were dependent on single units of the food declined progressively.

But what we have been able to observe here, at first with an isolated individual, and then in a small group temporarily isolated from the rest of humanity, is equally valid for the more complex interrelationships of a people and of human society in general. The situation of the inhabitants of a country after a crop failure, after an average crop, and finally, in a year following a bumper crop, presents relationships analogous in nature to those described above. Here also, opposite certain definite requirements, there is a smaller available quantity of food in the first case than in the second, and a smaller one in the second case than in the third. Hence, in these cases also, the importance of the satisfactions that depend on single units of the whole supply varies considerably.

If an elevator with 100,000 bushels of wheat burns down in a country that has just had a bumper crop, the effect of the calamity will at most be that less alcohol will be produced, or that the poorer part of the population will at worst be fed somewhat more scantily, without suffering deprivation; if the calamity occurs after an average crop, many people will already have to forgo more important satisfactions; and if the misfortune coincides with a famine, a great many people will die of hunger. In each of the three cases, satisfactions of very different degrees of importance depend on each concrete unit of the grain available to the people concerned, and for this reason the value of a unit of grain varies greatly in the three cases.

If we summarize what has been said, we obtain the following principles as the result of our investigation thus far:

(1) The importance that goods have for us and which we call value is merely imputed. Basically, only satisfactions have importance for us, because the maintenance of our lives and well-being depend on them. But we logically impute this importance to the goods on whose availability we are conscious of being dependent for these satisfactions.

(2) The magnitudes of importance that different satisfactions of concrete needs (the separate acts of satisfaction that can be realized by means of individual goods) have for us are unequal, and their measure lies in the degree of their importance for the maintenance of our lives and welfare.

(3) The magnitudes of the importance of our satisfactions that are imputed to goods—that is, the magnitudes of their values—are therefore also unequal, and their measure lies in the degree of importance that the satisfactions dependent on the goods in question have for us.

(4) In each particular case, of all the satisfactions assured by the whole available quantity of a good, only those that have the least importance to an economizing individual are dependent on command of a given portion of the whole quantity.

(5) The value of a particular good or of a given portion of the whole quantity of a good at the disposal of an economizing individual is thus for him equal to the importance of the least important of the satisfactions assured by the whole available quantity and achieved with any equal portion. For it is with respect to these least important satisfactions that the economizing individual concerned is dependent on the availability of the particular good, or given quantity of a good.[11]

[11]See Appendix D (p. 295) for the material originally appearing here as a footnote.—TR.

Thus, in our investigation to this point, we have traced the differences in the value of goods back to their ultimate causes, and have also, at the same time, found the ultimate, and original, measure by which the values of all goods are judged by men.

If what has been said is correctly understood, there can be no difficulty in solving any problem involving the explanation of the causes determining the differences between the values of two or more concrete goods or quantities of goods.

If we ask, for example, why a pound of drinking water has no value whatsoever to us under ordinary circumstances, while a minute fraction of a pound of gold or diamonds generally exhibits a very high value, the answer is as follows: Diamonds and gold are so rare that all the diamonds available to mankind could be kept in a chest and all the gold in a single large room, as a simple calculation will show. Drinking water, on the other hand, is found in such large quantities on the earth that a reservoir can hardly be imagined large enough to hold it all. Accordingly, men are able to satisfy only the most important needs that gold and diamonds serve to satisfy, while they are usually in a position not only to satisfy their needs for drinking water fully but, in addition, also to let large quantities of it escape unused, since they are unable to use up the whole available quantity. Under ordinary circumstances, therefore, no human need would have to remain unsatisfied if men were unable to command some particular quantity of drinking water. With gold and diamonds, on the other hand, even the least significant satisfactions assured by the total quantity available still have a relatively high importance to economizing men. Thus concrete quantities of drinking water usually have no value to economizing men but concrete quantities of gold and diamonds a *high* value.

All this holds only for the ordinary circumstances of life, when drinking water is available to us in copious quantities and gold and diamonds in very small quantities. In the desert, however, where the life of a traveller is often dependent on a drink of water, it can by all means be imagined that more important satisfactions depend, for an individual, on a pound of water than on even a pound of gold. In such a case, the value of a pound of water would consequently be greater, for the individual concerned, than the value of a pound of gold. And experience teaches us that such a relationship, or one that is similar, actually develops where the economic situation is as I have just described.

C. *The influence of differences in the quality of goods on their value.*

Human needs can often be satisfied by goods of different types and still more frequently by goods that differ, not as to type, but as to kind. Where we deal with given complexes of human needs, on the one side, and with the quantities of goods available for their satisfaction, on the other side (p. 129), the needs do not, therefore, always stand opposite quantities of homogeneous goods, but often opposite goods of different types, and still more frequently opposite goods of different kinds.

For greater simplicity of exposition I have, until now, omitted consideration of the differences between goods, and have, in the preceding sections, considered only cases in which quantities of completely homogeneous goods stand opposite needs of a specific type (stressing particularly the way in which their importance decreases in accordance with the degree of completeness of the satisfaction already attained). In this way, I was able to give greater emphasis to the influence that differences in the available quantities exercise on the value of goods.

The cases that now remain to be taken into consideration are those in which given human needs may be satisfied by goods of different types or kinds and in which, therefore, given human requirements stand opposite available quantities of goods of which separate portions are qualitatively different.

In this connection, it should first be noted that differences between goods, whether they be differences of type or of kind, cannot affect the value of the different units of a given supply if the satisfaction of human needs is in no way affected by these differences. Goods that satisfy human needs in an identical fashion are for this very reason regarded as completely homogeneous from an economic point of view, even though they may belong to different types or kinds on the basis of external appearance.

If the differences, as to type or kind, between two goods are to be responsible for differences in their value, it is necessary that they also have different capacities to satisfy human needs. In other words, it is necessary that they have what we call, from an economic point of view, differences in *quality*. An examination of the influence that differences in quality exercise on the value of particular goods is therefore the subject of the following investigation.

From an economic standpoint, the qualitative differences between goods may be of two kinds. Human needs may be satisfied either in a *quantitatively* or in a *qualitatively* different manner by means of equal quantities of *qualitatively* different goods. With a given quantity of beech wood, for instance, the human need for warmth may be satisfied in a *quantitatively* more intensive manner than with the same quantity of fir. But two equal quantities of foodstuffs of equal food value may satisfy the need for food in qualitatively different fashions, since the consumption of one dish may, for example, provide enjoyment while the other may provide either no enjoyment or only an inferior one. With goods of the first category, the inferior quality can be fully compensated for by a larger quantity, but with goods of the second category this is not possible. Fir, alder, or pine can replace beech wood for heating purposes, and if coal of inferior carbon content, oak bark of inferior tannin content, and the ordinary labor services of tardy or less efficient day-laborers are only available to economizing men in sufficiently large quantities, they can generally replace the more highly qualified goods perfectly. But even if unpalatable foods or beverages, dark and wet rooms, the services of mediocre physicians, etc., are available in the largest quantities, they can never satisfy our needs as well, *qualitatively*, as the corresponding more highly qualified goods.

When economizing individuals appraise the value of a good, it is purely a question, as we have seen, of estimating the importance of satisfaction of those needs with respect to which they are dependent on command of the good (p. 122). The quantity of a good that will bring about a given satisfaction is, however, only a secondary factor in valuation. For if smaller quantities of a more highly qualified good will satisfy a human need in the same (that is, in a quantitatively and qualitatively identical) manner as larger quantities of a less qualified good, it is evident that the smaller quantities of the more highly qualified good will have the same value to economizing men as the larger quantities of the less qualified good. Thus equal quantities of goods having different qualities of the first kind will display values that are unequal in the proportion indicated. If, for example, in determining the value of oak bark we take account exclusively of its tannin content, and seven hundred-weight of one grade has the same effectiveness as eight hundred-weight of another grade, it will also have the same value as the latter quantity to the artisans using the bark. Merely reducing these goods to quantities of equal economic effectiveness (a procedure actually employed in the economic activities of men in all such cases) thus completely removes the difficulty in determining the value of given quantities of different qualities (so far as their effectiveness is merely quantitatively different). In this way, the more complicated case under consideration is reduced to the simple relationship explained earlier (pp. 123 ff).

The question of the influence of different qualities on the values of particular goods is more complicated when the qualitative differences between the goods cause needs to be satisfied in qualitatively different ways. There can be no doubt, after what has been said about the general principle of value determination (p. 122), that it is the importance of the needs that would remain unsatisfied if we did not have command of a particular good of not only the general type but also the specific quality corresponding to these needs that is, in this case too, the factor determining its value. The difficulty I am discussing here does not, therefore, lie in the general principle of value determination being inapplicable to these goods, but rather in the determination of the particular satisfaction that depends on a particular concrete good when a whole group of needs stands opposite goods whose various units are capable of satisfying these needs in qualitatively different ways. In other words, it lies in the practical application of the general principle of value determination to human economic activity. The solution to this problem arises from the following considerations.

Economizing individuals do not use the quantities of goods available to them without regard to differences in quality when these exist. A farmer who has grain of different grades at his disposal does not, for example, use the worst grade for seeding, grain of medium quality as cattle feed, and the best for food and the production of beverages. Nor does he use the grains of different grades indiscriminately for one purpose or another. Rather, with a view to his requirements, he employs the best grade for seeding, the best that remains for food and beverages, and the grain of poorest quality for fattening cattle.

With goods whose units are homogeneous, the total available quantity of a good stands opposite the whole set of concrete needs that can be satisfied by means of it. But in cases where the different units of a good satisfy human needs in qualitatively different ways, the total available quantity of a good no longer stands opposite the whole set of needs; each available quantity of specific quality instead stands opposite corresponding specific needs of the economizing individuals.

If, with respect to a given consumption purpose, a good of a certain quality cannot be replaced at all by goods of any other quality, the principle of value determination previously demonstrated (p. 132) applies fully and directly to particular quantities of that good. Thus the value of any particular unit of such a good is equal to the importance of the least important satisfaction that is provided for by the total available quantity of this precise quality of good, since it is with respect to this satisfaction that we are actually dependent on command of the particular unit of this quality.

But human needs can be satisfied by means of goods of different qualifications, although in qualitatively different ways. If goods of one quality can be replaced by goods of another quality, though not with the same effectiveness, the value of a unit of the goods of superior quality is equal to the importance of the least important satisfaction that is provided for by the goods of superior quality minus a value quota[12] that is greater: (1)

[12]"*Werthquote.*" Menger presents the argument underlying this proposition at length on pages 163 to 165. But an explanatory note may

the smaller the value of the goods of inferior quality by which the particular need in question can also be satisfied, and (2) the smaller the difference to men between the importance of satisfying the particular need with the superior good and the importance of satisfying it with the inferior one.

Thus we arrive at the result that, even in cases in which a complex of needs stands opposite a quantity of goods of different qualities, satisfactions of given intensities always depend on each partial quantity or on each concrete unit of these goods. Hence, in all the cases discussed, the principle of value determination that I formulated above maintains its full applicability.

D. *The subjective character of the measure of value. Labor and value. Error.*

When I discussed the nature of value, I observed that value is nothing inherent in goods and that it is not a property of

---

perhaps be helpful due to the brevity and peculiar form of the present passage.

Assume that the least important satisfaction rendered by a unit of the superior good has an importance of 5 in Use A, that the least important satisfaction rendered by a unit of the inferior good in Use B has an importance of 2, and that a unit of the inferior good would render a satisfaction with an importance of 3 if it were to replace a unit of the superior good in Use A. Menger contends that the use-value of a unit of a superior good that can be replaced by an inferior good is equal, not to the importance of the least important satisfaction actually rendered by a unit of the superior good, but to the importance of the satisfactions dependent on continued command of that unit. In the present instance, if command of a unit of the superior good is lost and a unit of the inferior good is moved from Use B to Use A to take its place, the satisfactions lost to the consumer are: (1) a satisfaction in Use B with an importance of 2, which is lost because one less unit of the inferior good is employed in Use B, and (2) a satisfaction in Use A with an importance of 2 (the difference between the 5 units lost because one unit less of the superior good is employed in Use A and the 3 units gained because of the employment of a unit of the inferior good in its place). The use-value of a unit of the superior good is therefore 4, the sum of these two items. The "value quota" mentioned by Menger in the text is the difference between the least important satisfaction that the superior good would render in Use A and its use-value calculated in this way. The "value-quota" in this example is thus 5 minus 4, or 1.—TR.

goods. But neither is value an independent thing. There is no reason why a good may not have value to one economizing individual but no value to another individual under different circumstances. The *measure* of value is entirely subjective in nature, and for this reason a good can have great value to one economizing individual, little value to another, and no value at all to a third, depending upon the differences in their requirements and available amounts. What one person disdains or values lightly is appreciated by another, and what one person abandons is often picked up by another. While one economizing individual esteems equally a given amount of one good and a greater amount of another good, we frequently observe just the opposite evaluations with another economizing individual.

Hence not only the *nature* but also the *measure* of value is subjective. Goods always have value to certain economizing individuals and this value is also *determined* only by these individuals.

The value an economizing individual attributes to a good is equal to the importance of the particular satisfaction that depends on his command of the good. There is no necessary and direct connection between the value of a good and whether, or in what quantities, labor and other goods of higher order were applied to its production. A non-economic good (a quantity of timber in a virgin forest, for example) does not attain value for men if large quantities of labor or other economic goods were applied to its production. Whether a diamond was found accidentally or was obtained from a diamond pit with the employment of a thousand days of labor is completely irrelevant for its value. In general, no one in practical life asks for the history of the origin of a good in estimating its value, but considers solely the services that the good will render him and which he would have to forgo if he did not have it at his command. Goods on which much labor has been expended often have no value, while others, on which little or no labor was expended, have a very high value. Goods on which much labor was expended and others on which little or no labor was expended are often of equal value to economizing men. The quantities of labor or of other means of production applied to its production cannot, therefore, be the determining factor in the value of a good. Comparison of the value of a good with the value of the means of production employed in its production does, of course, show whether and to what extent its production, an act of *past* human activity, was appropriate or economic. But the quantities of goods employed in the production of a good have neither a necessary nor a directly determining influence on its value.

Equally untenable is the opinion that the determining factor in the value of goods is the quantity of labor or other means of production that are necessary for their *reproduction*. A large number of goods cannot be reproduced (antiques, and paintings by old masters, for instance) and thus, in a number of cases, we can observe value but no possibility of reproduction. For this reason, any factor connected with reproduction cannot be the determining principle of value in general. Experience, moreover, shows that the value of the means of production necessary for the reproduction of many goods (old-fashioned clothes and obsolete machines, for instance) is sometimes considerably higher and sometimes lower than the value of the products themselves.

The determining factor in the value of a good, then, is neither the quantity of labor or other goods necessary for its production nor the quantity necessary for its reproduction, but rather the magnitude of importance of those satisfactions with respect to which we are conscious of being dependent on command of the good. This principle of value determination is universally valid, and no exception to it can be found in human economy.

The importance of a satisfaction to us is not the result of an arbitrary decision, but rather is measured by the importance, which is not arbitrary, that the satisfaction has for our lives or for our wellbeing. The relative degrees of importance of different satisfactions and of successive acts of satisfaction are nevertheless matters of judgment on the part of economizing men, and for this reason, their knowledge of these degrees of importance is, in some instances, subject to error.

We saw earlier that the satisfactions on which their lives depend have the highest importance to men, that the satisfactions following next in importance are those on which their well-being depends, and that satisfactions on which a higher degree of well-being depends (with equal intensity a longer enduring satisfaction, and with the same duration a more intensive one) have a higher importance to men than those on which a lower degree of their well-being is dependent.

But what has been said by no means excludes the possibility that stupid men may, as a result of their defective knowledge, sometimes estimate the importance of various satisfactions in a manner contrary to their real importance. Even individuals whose economic activity is conducted rationally, and who therefore certainly endeavor to recognize the true importance of satisfactions in order to gain an accurate foundation for their economic activity, are subject to error. Error is inseparable from all human knowledge.

Men are especially prone to let themselves be misled into overestimating the importance of satisfactions that give intense momentary pleasure but contribute only fleetingly to their well-being, and so into underestimating the importance of satisfactions on which a less intensive but longer enduring well-being depends. In other words, men often esteem passing, intense enjoyments more highly than their permanent welfare, and sometimes even more than their lives.

If men are thus already often in error with respect to their knowledge of the subjective factor of value determination, when it is merely a question of appraising their own states of mind, they are even more likely to err when it is a question of their perception of the objective factor of value determination, especially when it is a question of their knowledge of the magnitudes of the quantities available to them and of the different qualities of goods.

For these reasons alone it is clear why the determination of the value of particular goods is beset with manifold errors in economic life. But in addition to value fluctuations that arise from changes in human needs, from changes in the quantities of goods available to men, and from changes in the physical properties of goods, we can also observe fluctuations in the values of goods that are caused simply by *changes in the knowledge* men have of the importance of goods for their lives and welfare.

3.

The Laws Governing the Value of Goods of Higher Order

A. *The principle determining the value of goods of higher order.*

Among the most egregious of the fundamental errors that have had the most far-reaching consequences in the previous development of our science is the argument that goods attain value for us because goods were employed in their production that had value to us. Later, when I come to the discussion of the prices of goods of higher order, I shall show the specific causes that were responsible for this error and for its becoming the foundation of the accepted theory of prices (in a form hedged about with all sorts of special provisions, of course). Here I want to state, above all, that this argument is so strictly opposed to all experience (p. 146) that it would have to be rejected even if it provided a *formally* correct solution to the problem of establishing a principle explaining the value of goods.

But even this last purpose cannot be achieved by the argument in question, since it offers an explanation only for the value of goods we may designate as "products" but not for the value of all other goods, which appear as original factors of production. It does not explain the value of goods directly provided by nature, especially the services of land. It does not explain the value of labor services. Nor does it even, as we shall see later, explain the value of the services of capital. For the value of all these goods cannot be explained by the argument that goods derive their value from the value of the goods expended in their production. Indeed, it makes their value completely incomprehensible.

This argument, therefore, provides neither a formally correct solution nor one that conforms with the facts of reality, to the problem of discovering a universally valid explanation of the value of goods. On the one hand, it is in contradiction with experience; and on the other hand, it is patently inapplicable wherever we have to deal with goods that are not the product of the combination of goods of higher order. The value of goods of lower order cannot, therefore, be determined by the value of the goods of higher order that were employed in their production. On the contrary, it is evident that the value of goods of higher order is always and without exception determined by the prospective value of the goods of lower order in whose production they serve.[13] The existence of our *requirements* for goods of higher order is dependent upon the goods they serve to produce having expected economic character (p. 107) and hence expected *value*. In securing our requirements for the satisfaction of our needs, we do not need command of goods that are suitable for the production of goods of lower order that have no expected value (since we have no requirements for them). We therefore have the principle that the value of goods of higher order is dependent upon the expected value of the goods of lower order they serve to produce. Hence goods of higher order can attain value, or retain it once they have it, only if, or as long as, they serve to produce goods that we expect to have value for us. If this fact is established, it is clear also that the value of goods of higher order cannot be the *determining* factor in the prospective value of the corresponding goods of lower order. Nor can the value of the goods of higher order already expended in producing a good of lower order be the determining factor in its present value. On the contrary, the value of goods of higher order is, in all cases, regulated by the prospective value of the goods of lower order to whose production they have been or will be assigned by economizing men.

The prospective value of goods of lower order is often—and this must be carefully observed—very different from the value that similar goods have in the present. For this reason, the value of the goods of higher order by means of which we shall have command of goods of lower order at some future time (pp. 67 ff.) is by no means measured by the current value of similar goods of lower order, but rather by the prospective value of the goods of lower order in whose production they serve.

Suppose, for example, that we have the saltpetre, sulphur, charcoal, specialized labor services, appliances, etc., necessary for the production of a certain quantity of

[13]The remainder of this paragraph is a footnote in the original.—TR.

gunpowder, and that thus, by means of these goods, we shall have this quantity of gunpowder at our command in three months time. It is clear that the value this gunpowder is expected to have for us in three months time need not necessarily be equal to, but may be greater or less than, the value of an identical quantity of gun powder at the present time. Hence also, the magnitude of the value of the above goods of higher order is measured, not by the value of gunpowder at present, but by the prospective value of their product at the end of the production period. Cases can even be imagined in which a good of lower or first order is completely valueless at present (ice in winter, for example), while simultaneously available corresponding goods of higher order that assure quantities of the good of lower order for a future time period (all the materials and implements necessary for the production of artificial ice, for example) have value with respect to this future time period—and vice versa.

Hence there is no necessary connection between the value of goods of lower or first order in the present and the value of currently available goods of higher order serving for the production of such goods. On the contrary, it is evident that the former derive their value from the relationship between requirements and available quantities in the present, while the latter derive their value from the prospective relationship between the requirements and the quantities that will be available at the future points in time when the products created by means of the goods of higher order will become available. If the prospective future value of a good of lower order rises, other things remaining equal, the value of the goods of higher order whose possession assures us future command of the good of lower order rises also. But the rise or fall of the value of a good of lower order available in the present has no necessary causal connection with the rise or fall of the value of currently available corresponding goods of higher order.

Hence the principle that the value of goods of higher order is governed, not by the value of corresponding goods of lower order of the present, but rather by the prospective value of the product, is the universally valid principle of the determination of the value of goods of higher order.[14]

Only the satisfaction of our needs has direct and immediate

---

[14]The next paragraph appears here as a footnote in the original.—TR.

significance to us. In each concrete instance, this significance is measured by the importance of the various satisfactions for our lives and well-being. We next attribute the exact quantitative magnitude of this importance to the specific goods on which we are conscious of being directly dependent for the satisfactions in question—that is, we attribute it to economic goods of first order, as explained in the principles of the previous section. In cases in which our requirements are not met or are only incompletely met by goods of first order, and in which goods of first order therefore attain value for us, we turn to the corresponding goods of the next higher order in our efforts to satisfy our needs as completely as possible, and attribute the value that we attributed to goods of first order in turn to goods of second, third, and still higher orders whenever these goods of higher order have economic character. The value of goods of *higher order* is therefore, in the final analysis, nothing but a special form of the importance we attribute to our lives and well-being. Thus, as with goods of first order, the factor that is ultimately responsible for the value of goods of higher order is merely the importance that we attribute to those satisfactions with respect to which we are aware of being dependent on the availability of the goods of higher order whose value is under consideration. But due to the causal connections between goods, the value of goods of higher order is not measured directly by the expected importance of the final satisfaction, but rather by the expected value of the corresponding goods of lower order.

B. *The productivity of capital.*

The transformation of goods of higher order into goods of lower order takes place, as does every other process of change, in time. The times at which men will obtain command of goods of first order from the goods of higher order in their present possession will be more distant the higher the order of these goods. While it is true, as we saw earlier (pp. 71 ff.), that the more extensive employment of goods of higher order for the satisfaction of human needs brings about a continuous expansion in the quantities of available consumption goods, this extension is only possible if the provident activities of men are extended to ever more distant time periods. A primitive Indian is occupied incessantly with the task of meeting his requirements for a few days at a time. A nomad who does not consume the domestic animals at his command but decides to breed them for their young is already producing goods that will become available to him only after a few months. But among civilized peoples, a considerable proportion of the members of society is occupied with the production of goods that will contribute only after years, and often only after decades, to the direct satisfaction of human needs.

Thus by relinquishing their collecting economy, and by making progress in the employment of goods of higher orders for the satisfaction of their needs, economizing men can most assuredly increase the consumption goods available to them accordingly—but only on condition that they lengthen the periods of time over which their provident activity is to extend in the same degree that they progress to goods of higher order.

There is, in this circumstance, an important restraint upon economic progress. The most anxious care of men is always directed to assuring themselves the consumption goods necessary for the maintenance of their lives and well-being in the present or in the immediate future, but their anxiety diminishes as the time period over which it is extended becomes longer. This phenomenon is not accidental but deeply imbedded in human nature. To the extent that the maintenance of our lives depends on the satisfaction of our needs, guaranteeing the satisfaction of earlier needs must necessarily precede attention to later ones. And even where not our lives but merely our continuing well-being (above all our health) is dependent on command of a quantity of goods, the attainment of well-being in a nearer period is, as a rule, a prerequisite of well-being in a later period. Command of the means for the maintenance of our well-being at some distant time avails us little if poverty and distress have already undermined our health or stunted our development in an earlier period. Similar considerations are involved even with satisfactions having merely the importance of enjoyments. All experience teaches that a present enjoyment or one in the near future usually appears more important to men than one of equal intensity at a more remote time in the future.

Human life is a process in which the course of future development is always influenced by previous development. It is a process that cannot be continued once it has been interrupted, and that cannot be completely rehabilitated once it has become seriously disordered. A necessary prerequisite of our provision for the maintenance of our lives and for our development in future periods is a concern for the preceding periods of our lives. Setting aside the irregularities of economic activity, we can conclude that economizing men generally endeavor to ensure the satisfaction of needs of the immediate future first, and that only after this has been done, do they attempt to ensure the satisfaction of needs of more distant periods, in accordance with their remoteness in time.

The circumstance that places a restraint upon the efforts of economizing men to progress in the employment of goods of higher orders is thus the necessity of first making provision, with the goods at present available to them, for the satisfaction of their needs in the immediate future; for only when this has been done can they make provision for more distant time periods. In other words, the economic gain men can obtain from more extensive employment of goods of higher orders for the satisfaction of their needs is dependent on the condition that they *still have further quantities of goods available for more distant time periods* after they have met their requirements for the immediate future.

In the early stages and at the beginning of every new phase of cultural development, when a few individuals (the first discoverers, inventors, and enterprisers) are first making the transition to the use of goods of the next higher order, the portion of these goods that had existed previously but which until then had had no application of any sort in human economy, and for which there were therefore no requirements, naturally have non-economic character. When a hunting people is passing over to sedentary agriculture, land and materials that were not previously used and are now employed for the first time for the satisfaction of human needs (lime, sand, timber, and stones for building, for example) usually maintain their non-economic character for some time after the transition has begun. It is therefore not the limited quantities of these goods that prevents economizing men in the first stages of civilization from making progress in the employment of goods of higher orders for the satisfaction of their needs.

But there is, as a rule, another portion of the complementary goods of higher order, which has already been serving for the satisfaction of human needs in some branch or other of production before the transition to the employment of a new order of goods, and which therefore previously exhibited economic character. The seed grain and labor services needed by an individual passing from the stage of collecting economy to agriculture are examples of this kind.

These goods, which the individual making the transition previously used as goods of lower order, and which he might continue to use as goods of lower order, must now be employed as goods of higher order if he wishes to take advantage of the economic gain mentioned earlier. In other words, he can procure this gain only by employing goods, which are available to him, if he so chooses, for the *present* or for the *near future*, for the satisfaction of the needs of a *more distant time period*.

Meanwhile, with the continuous development of civilization and with progress in the employment of further quantities of goods of higher order by economizing men, a large part of the other, previously non-economic, goods of higher order (land, limestone, sand, timber, etc., for example) attains economic character (p. 103). When this occurs, each individual can participate in the economic gains connected with employment of goods of higher order in contrast to purely collecting activity (and, at higher levels of civilization, with the employment of goods of higher order in contrast to the limitations of means of production of lower order) only if he already has command of quantities of economic goods of higher order (or quantities of economic goods of any kind, when a brisk commerce has already developed and goods of all kinds may be exchanged for one another) in the present for future periods of time—in other words, only if he possesses *capital*.[15]

[15]See Appendix E (p. 303) for the material originally appearing here as a footnote.—TR.

With this proposition, however, we have reached one of the most important truths of our science, the "productivity of capital." The proposition must not be understood to mean that command of quantities of economic goods in an earlier period for a later time can contribute anything by itself *during* this period to the increase of the consumption goods available to men. It merely means that command of quantities of economic goods for a certain period of time is *for economizing individuals* a means to the better and more complete satisfaction of their needs, and therefore a good—or rather, an *economic good*, whenever the available quantities of capital services are smaller than the requirements for them.

The more or less complete satisfaction of our needs is therefore no less dependent on command of quantities of economic goods for certain periods of time (on capital services) than it is on command of other economic goods. For this reason, capital services are objects to which men attribute value, and as we shall see later, they are also objects of commerce.[16]

Some economists represent the payment of interest as a reimbursement for the abstinence of the owner of capital. Against this doctrine, I must point out that the abstinence of a person cannot, by itself, attain goods-character and thus value. Moreover, capital by no means always originates from abstinence, but in many cases as a result of mere seizure (whenever formerly non-economic goods of higher order attain economic character because of society's increasing requirements, for example). Thus the payment of interest must not be regarded as a compensation of the owner of capital for his abstinence, but as the exchange of one economic good (the use of capital) for another (money, for instance). Carey[17] falls into the opposite error, however, when he assigns to parsimony a tendency directly inimical to the creation of capital.

---

[16]The next paragraph appears here as a footnote in the original.—TR.

[17]Henry C. Carey, *Principles of Social Science*, Philadelphia, 1859, III, 60–61.

C. *The value of complementary quantities of goods of higher order.*

In order to transform goods of higher order[18] into goods of lower order, the passage of a certain period of time is necessary. Hence, whenever economic goods are to be produced, *command of the services of capital is necessary for a certain period of time.* The length of this period varies according to the nature of the production process. In any given branch of production, it is longer the higher the order of the goods to be directed to the satisfaction of human needs. But some passage of time is inseparable from any process of production.

During these time periods, the quantity of economic goods of which I am speaking (capital) is *fixed*,[19] and not available for other productive purposes. In order to have a good or a quantity of goods of lower order at our command at a future time, it is not sufficient to have fleeting possession of the corresponding goods of higher order at some single point in time, but instead necessary that we retain command of these goods of higher order for a period of time that varies in length according to the nature of the particular process of production, and that we *fix* them in this production process for the duration of that period.

In the preceding section, we saw that command of quantities of economic goods for given periods of time has value to economizing men, just as other economic goods have value to them. From this it follows that the aggregate present value of all the goods of higher order necessary for the production of a good of lower order can be set equal to the prospective value of the

---

[18]It is not just the technical means of production that must be regarded as goods of higher order, but in general, all goods that can be used for the satisfaction of human needs only by being combined with other goods of higher order. The commodities that a wholesale merchant can pass on to the retailer only by employing capital, incurring costs of shipping, and using various specific labor services, must be regarded as goods of higher order. The same is true of the commodities in the hands of a grocer. Even the speculator adds to the objects of his speculation at least his entrepreneurial activities and his capital services, and often storage services, warehousing, etc., as well (see Hermann, *op. cit*., p. 65).

[19]"*gebunden*."—TR.

product to economizing men only if the value of the services of capital during the production period is included.

Suppose, for example, we wish to determine the value of the goods of higher order that assure us command of a given quantity of grain a year hence. The value of the seed grain, the services of land, the specialized agricultural labor services, and all the other goods of higher order necessary for the production of the given quantity of grain will indeed be equal to the *prospective* value of the grain at the end of the year (p. 150), but only on condition that the value of a year's command of these economic goods to the economizing individuals concerned is included in the sum. The *present* value of these goods of higher order by themselves is therefore equal to the value of the prospective product minus the value of the services of the capital employed.

To express what has been said numerically, suppose that the prospective value of the product that will be available at the end of the year is 100, and that the value of a year's command of the necessary quantities of economic goods of higher order (the value of the services of capital) is 10. It is clear that the aggregate value of all the complementary goods of higher order required for the production of the product, excluding the services of capital, is equal not to 100, but only to 90. If the value of the services of capital were 15, the present value of the other goods of higher order would be only 85.

The value of goods to the economizing individuals concerned is, as I have already stated several times, the most important foundation of price formation. Now if, in ordinary life, we see that buyers of goods of higher order never pay the full prospective price of a good of lower order for the complementary means of production technically necessary for its production,[20] that they are always only in a position to grant, and actually do grant, prices for them that are somewhat lower than the price of the product, and that the sale of goods of higher order thus has a certain similarity to discounting, the prospective price of

[20] Leopold v. Hasner, *System der politischen Oekonomie*, Prag, 1860, I, 29.

the product forming the basis of the computation,[21] these facts are explained by the preceding argument.[22]

A person who has at his disposal the goods of higher order required for the production of goods of lower order does not, by virtue of this fact, have command of the goods of lower order immediately and directly, but only after the passage of a period of time that is longer or shorter according to the nature of the production process. If he wishes to exchange his goods of higher order immediately for the corresponding goods of lower order, or for what is the same thing under developed trade relations, a corresponding sum of money, he is evidently in a position similar to that of a person who is to receive a certain sum of money at a future point in time (after 6 months, for example) but who wants to obtain command of it immediately. If the owner of goods of higher order intends to transfer them to a third person and is willing to receive payment only after the end of the production process, naturally no "discounting" takes place. In fact, we can observe the prices of goods that are sold on credit rising higher (apart from the risk premium) the further the agreed-upon date of payment lies in the future. All this, however, explains at the same time why the productive activity of a people is greatly promoted by credit. In by far the greater number of cases, credit transactions consist in handing goods of higher order over to persons who transform them into corresponding goods of lower order. Production, or more extensive fabrication at least, is very often only possible through credit; hence the pernicious stoppage and curtailment of the productive activity of a people when credit suddenly ceases to flow.

The process of transforming goods of higher order into goods of lower or first order, provided it is economic in other respects, must also always be planned and conducted, with some eco-

---

[21]Since, other things being equal, the productiveness of a production process and the value of the capital services used are both greater the longer the time period required for the production process, the values of goods of higher order, which can be employed in productive processes of very different duration, and which therefore assure us, at our choice, consumption goods of different values at different points in time, are brought into equilibrium with respect to the present.

[22]The next paragraph appears here as a footnote in the original.—TR.

nomic purpose in view, by an economizing individual. This individual must carry through the economic computations of which I have just been speaking, and he must actually bring the goods of higher order, including technical labor services, together (or cause them to be brought together) for the purpose of production.[23] The question as to which functions are included in this so-called *entrepreneurial activity* has already been posed several times. Above all we must bear in mind that an entrepreneur's own *technical* labor services are often among the goods of higher order that he has at his command for purposes of production. When this is the case, he assigns them, just like the services of other persons, their roles in the production process. The owner of a magazine is often a contributor to his own magazine. The industrial entrepreneur often works in his own factory. Each of them is an entrepreneur, however, not because of his technical participation in the production process, but because he makes not only the underlying economic calculations but also the actual decisions to assign goods of higher order to particular productive purposes. Entrepreneurial activity includes: (a) obtaining *information* about the economic situation; (b) economic *calculation*—all the various computations that must be made if a production process is to be efficient (provided that it is economic in other respects); (c) the *act of will* by which goods of higher order (or goods in general—under conditions of developed commerce, where any economic good can be exchanged for any other) are assigned to a particular production process; and finally (d) *supervision* of the execution of the production plan so that it may be carried through as economically as possible. In small firms, these entrepreneurial activities usually occupy but an inconsiderable part of the time of the entrepreneur. In large firms, however, not only the entrepreneur himself, but often several helpers, are fully occupied with these activities. But however extensive the activities of these helpers may be, the four functions listed above can always be observed in the actions of the entrepreneur, even if they are ultimately confined (as in corporations) to determining the allocation of portions of wealth to particular productive purposes only by general categories, and to the

---

[23]The remainder of this paragraph is a footnote in the original.—TR.

selection and control of persons. After what has been said, it will be evident that I cannot agree with Mangoldt,[24] who designates "risk bearing" as the *essential* function of entrepreneurship in a production process, since this "risk" is only incidental and the chance of loss is counterbalanced by the chance of profit.

In the early stages of civilization and even later in the case of small manufactures, entrepreneurial activity is usually performed by the same economizing individual whose technical labor services also constitute one of the factors in the production process. With progressive division of labor and an increase in the size of enterprises, entrepreneurial activity often occupies his full time. For this reason, entrepreneurial activity is just as necessary a factor in the production of goods as technical labor services. It therefore has the character of a good of higher order, and value too, since like other goods of higher order it is also generally an economic good. Hence whenever we wish to determine the present value of complementary quantities of goods of higher order, the prospective value of the product determines the total value of all of them together only if the value of entrepreneurial activity is included in the total.

Let me summarize the results of this section. The aggregate present value of all the complementary quantities of goods of higher order (that is, all the raw materials, labor services, services of land, machines, tools, etc.) necessary for the production of a good of lower or first order is equal to the prospective value of the product. But it is necessary to include in the sum not only the goods of higher order technically required for its production but also the services of capital and the activity of the entrepreneur. For these are as unavoidably necessary in every economic production of goods as the technical requisites already mentioned. Hence the *present* value of the technical factors of production by themselves is not equal to the full prospective value of the product, but always behaves in such a way that a margin for the value of the services of capital and entrepreneurial activity remains.

---

[24] H.v. Mangoldt, *Die Lehre vom Unternehmergewinn*, Leipzig, 1855, pp. 36ff.

D. *The value of individual goods of higher order.*

We have seen that the value of a particular good (or of a given quantity of goods) to the economizing individual who has it at his command is equal to the importance he attaches to the satisfactions he would have to forgo if he did not have command of it. From this we could infer, without difficulty, that the value of each unit of goods of higher order is likewise equal to the importance of the satisfactions assured by command of a unit if we were not impeded by the fact that a good of higher order cannot be employed for the satisfaction of human needs by itself but only in combination with other (the complementary) goods of higher order. Because of this, however, the opinion could arise that we are dependent, for the satisfaction of concrete needs, not on command of an individual concrete good (or concrete quantity of some one kind of good) of higher order, but rather on command of complementary quantities of goods of higher order, and that therefore only aggregates of complementary goods of higher order can independently attain value for an economizing individual.

It is, of course, true that we can obtain quantities of goods of lower order only by means of *complementary* quantities of goods of higher order. But it is equally certain that the various goods of higher order need not always be combined in the production process in fixed proportions (in the manner, perhaps, that is to be observed in the case of chemical reactions, where only a certain weight of one substance combines with an equally fixed weight of another substance to yield a given chemical compound). The most ordinary experience teaches us rather that a given quantity of some one good of lower order can be produced from goods of higher order that stand in very different quantitative relationships with one another. In fact, one or several goods of higher order that are complementary to a group of certain other goods of higher order may often be omitted altogether without destroying the capacity of the remaining complementary goods to produce the good of lower order. The services of land, seed, labor services, fertilizer, the services of agricultural implements, etc., are used to produce grain. But no one will be able to deny that a *given* quantity of grain can also be produced without the use of fertilizer and without employing a large part of the usual agricultural implements, provided only that the other goods of higher order used for the production of grain are available in correspondingly larger quantities.

If experience thus teaches us that some complementary goods of higher order can often be omitted entirely in the production of goods of lower order, we can much more frequently observe, not only that given products can be produced by varying quantities of goods of higher order, but also that there is generally a very wide range within which the proportions of goods applied to their production can be, and actually are, varied. Everyone knows that, even on land of homogeneous quality, a given quantity of grain can be produced on fields of very different sizes if more or less intensively tilled—that is, if larger or smaller quantities of the other complementary goods of higher order are applied to them. In particular, an insufficiency of fertilizer can be compensated for by the employment of a larger amount of land or better machines, or by the more intensive application of agricultural labor services. Similarly, a diminished quantity of almost every good of higher order can be compensated for by a correspondingly greater application of the other complementary goods.

But even where particular goods of higher order cannot be replaced by quantities of other complementary goods, and a diminution of the available quantity of some particular good of higher order causes a corresponding diminution of the product (in the production of some chemical, for instance), the corresponding quantities of the other means of production do not necessarily become valueless when this one production good is lacking. The other means of production can, as a rule, still be applied to the production of other consumption goods, and so in the last analysis to the satisfaction of human needs, even if these needs are usually less important than the needs that could have been satisfied if the missing quantity of the complementary good under consideration had been available.

As a rule, therefore, what depends on a given quantity of a good of higher order is not command of an exactly corresponding quantity of product, but only a portion of the product and often only its higher quality. Accordingly, the value of a given quantity of a particular good of higher order is not equal to the importance of the satisfactions that depend on the whole product it helps to produce, but is equal merely to the importance of the satisfactions provided for by the portion of the product that would remain unproduced if we were not in a position to command the given quantity of the good of higher order. Where the result of a diminution of the available quantity of a good of higher order is not a decrease in the quantity of product but a worsening of its quality, the value of a given quantity of a good of higher order is equal to the difference in importance between the satisfactions that can be achieved with the more highly qualified product and those that can be achieved with the less qualified product. In both cases, therefore, it is not satisfactions provided by the whole product that a given quantity of a particular good of higher order helps to produce that are dependent on command of it, but only satisfactions of the importance here explained.

Even where a diminution of the available quantity of a particular good of higher order causes the product (some chemical compound, for example) to diminish proportionately, the other complementary quantities of goods of higher order do not become valueless. Although their complementary factor of production is now missing, they can still be applied to the production of other goods of lower order, and thus directed to the satisfaction of human needs, even if these needs are, perhaps, somewhat less important than would otherwise have been the case. Thus in this case too, the full value of the product that would be lost to us for lack of a particular good of higher order is not the determining factor in its value. Its value is equal only to the difference in importance between the satisfactions that are assured if we have command of the good of higher order whose value we wish to determine and the satisfactions that would be achieved if we did not have it at our command.

If we summarize these three cases, we obtain a general law of the determination of the value of a concrete quantity of a good of higher order. Assuming in each instance that all available goods of higher order are employed in the most economic fashion, the value of a concrete quantity of a good of higher order is equal to the difference in importance between the satisfactions that can be attained when we have command of the given quantity of the good of higher order whose value we wish to determine and the satisfactions that would be attained if we did not have this quantity at our command.

This law corresponds exactly to the general law of value determination (p. 121), since the difference referred to in the law of the preceding paragraph represents the importance of the satisfactions that depend on our command of a given good of higher order.

If we examine this law with respect to what was said earlier (p. 157) about the value of the complementary quantities of goods of higher order required for the production of a consumption good, we obtain a corollary principle: the value of a good of higher order will be greater (1) the greater the prospective value of the product if the value of the other complementary goods necessary for its production remains equal, and (2) the lower, other things being equal, the value of the complementary goods.

E. The value of the services of land, capital, and labor, in particular.[25]

Land occupies no exceptional place among goods. If it is used for consumption purposes (ornamental gardens, hunting grounds, etc.), it is a good of first order. If it is used for the production of other goods, it is, like many others, a good of higher order. Whenever there is a question, therefore, of determining the value of land or the value of the services of land, they are subject to the general laws of the determination of value. If certain pieces of land have the character of goods of higher order, their value is subject also to the laws of value determination of goods of higher order that I have explained in the preceding section.

A widespread school of economists has recognized correctly that the value of land cannot validly be traced back to labor or

[25]Menger here appends a lengthy footnote which has been incorporated into the text as the last three paragraphs of this chapter.—TR.

to the services of capital. From this, however, they have deduced the legitimacy of assigning land an exceptional position among goods. But the methodological blunder involved in this procedure is easily recognized. That a large and important group of phenomena cannot be fitted into the general laws of a science dealing with these phenomena is telling evidence of the need for reforming the science. It does not, however, constitute an argument that would justify the most questionable methodological procedure of separating a group of phenomena from all other objects of observation exactly similar in general nature, and elaborating special highest principles for each of the two groups.

Recognition of this mistake has led, therefore, in more recent times to numerous attempts to fit land and the services of land into the framework of a system of economic theory with all other goods, and to trace their values and the prices they fetch back to human labor or to the services of capital, in conformity with the accepted principles.[26]

But the violence done to goods in general, and to land in particular, by such an attempt is obvious. A piece of land may have been wrested from the sea with the greatest expenditure of human labor; or it may be the alluvial deposit of some river and thus have been acquired without any labor at all. It may have been originally overgrown with jungle, covered with stones, and reclaimed later with great effort and economic sacrifice; or it may have been free of trees and fertile from the beginning. Such items of its past history are of interest in judging its *natural* fertility, and certainly also for the question of *whether the application of economic goods to this piece of land* (improvements) were appropriate and economic. But its history is of no relevance when its general economic relationships, and especially its value, are at issue. For these have to do with the importance goods attain for us solely because they assure us future

---

[26]N.F. Canard, *Principes d'économie politique*, Paris, 1901, pp. 5ff.; Carey, *op. cit.*, III, 131ff.; Frédéric Bastiat, *Harmonies économiques*, in *Oeuvres complètes de F. Bastiat*, Paris, 1893, VI, 297ff.; Max Wirth, *Grundzüge der National-Oekonomie*, Köln, 1871, I, 284ff.; Hermann Roesler, *Grundsätze der Volkswirthschaftslehre*, Rostock, 1864, pp. 500–5 13.

satisfactions.[27] From these considerations, it also follows that whenever I refer to the services of land I mean the services, measured over time, of pieces of land as we actually find them in the economy of men, and not the use of the "original powers" of land. For only the former are objects of human economizing, while the latter, in concrete cases, are merely at most the objects of a hopeless historical investigation, and in any case irrelevant for economizing men. When a farmer rents a piece of land for one or several years, he cares little whether its soil derives its fertility from capital investments of all kinds or was fertile from the very beginning. These circumstances have no influence on the price he pays for the use of the soil. A buyer of a piece of land attempts to reckon the "future" but never the "past" of the land he is purchasing.

Thus the newer attempts to explain the value of land or the services of land by reducing them to labor services or to the services of capital must be regarded only as an outcome of the effort to make the accepted theory of ground-rent (a part of our science that stands, relatively, in the least contradiction with the phenomena of real life) consistent with prevalent misconceptions of the highest principles of our science. It must further be protested against the accepted theory of rent, especially in the form in which it was expressed by Ricardo,[28] that it brought to light merely an isolated factor having to do with differences in the value of land but not a principle explaining the value of the services of land to economizing men,[29] and that the isolated factor was mistakenly advanced as the principle.

Differences in the fertility and situation of pieces of land are doubtless among the most important causes of differences in the value of the services of land and of land itself. But beyond these there exist still other causes of differences in the value of these goods. Differences in fertility and situation are not even responsible for these other causes, much less a general principle explaining the value of land and services of land. If all pieces of

[27]The remainder of this paragraph is a footnote in the original.—TR.

[28]Ricardo, *Principles of Political Economy and Taxation*, ed. by E.C.K. Gonner, London, 1891, pp. 44–61 and 392–420.

[29]See Karl Rodbertus, *Zur Beleuchtung der socialen Frage*, Berlin, 1890, I, 89ff.

land had the same fertility and equally favorable locations, they would yield no rent at all, according to Ricardo. But although a single factor accounting for differences between the rents they yield may then indeed be absent, it is quite certain that neither all the differences between the rents nor rent itself would, of necessity, disappear. It is evident rather that even the most unfavorably situated and least fertile pieces of land in a country where land is scarce would yield a rent, a rent that could find no explanation in the Ricardian theory.

Land and the services of land, in the concrete forms in which we observe them, are objects of our value appraisement like all other goods. Like other goods, they attain value only to the extent that we depend on command of them for the satisfaction of our needs. And the factors determining their value are the same as those we encountered earlier in our investigation of the value of goods in general (pp. 121 and 141).[30] A deeper understanding of the differences in their value can, therefore, also only be attained by approaching land and the services of land from the general points of view of our science and, insofar as they are goods of higher order, relating them to the corresponding goods of lower order and especially to their complementary goods.

In the preceding section we obtained the result that the aggregate value of the goods of higher order necessary for the production of a consumption good (including the services of capital and entrepreneurial activity) is equal to the prospective value of the product. Where services of land are applied to the production of goods of lower order, the value of these services,

[30]Rodbertus (*op. cit.*, pp. 117 ff.) argues that our social institutions make it possible for the owners of capital and land to take a part of the product of labor away from the laborers, and thereby live without working. His argument is based on the erroneous assumption that the entire result of a production process must be regarded as the product of labor. Labor services are only one of the factors of the production process, however, and are not economic goods in any higher degree than the other factors of production including the services of land and capital. Capitalists and landowners do not, therefore, live on what they take away from laborers, but upon the services of their land and capital which have value, just as do labor services, both to individuals and to society.

together with the value of the other complementary goods, will be equal to the prospective value of the good of lower or first order to whose production they have been applied. As this prospective value is higher or lower, other things remaining equal, the aggregate value of the complementary goods will be higher or lower. As for the separate value of actual pieces of land or services of land, it is regulated, like the value of other goods of higher order, in accordance with the principle that the value of a good of higher order will, other things being equal, be greater (1) the greater the value of the prospective product, and (2) the smaller the value of the complementary goods of higher order.[31]

The value of services of land is therefore not subject to different laws than the value of the services of machines, tools, houses, factories, or any other kind of economic good.

The existence of the special characteristics that land and the services of land, as well as many other kinds of goods, exhibit is by no means denied. In any country, land is usually available only in quantities that cannot be easily increased; it is fixed as to situation; and it has an extraordinary variety of grades. All the peculiarities of value phenomena we are able to observe in the case of land and the services of land can be traced back to these three factors. Since these factors have bearing only upon the quantities and qualities of land available to economizing men in general and to the inhabitants of certain territories in particular, the peculiarities in question are factors in the determination of value that influence not just the value of land and the services of land but, as we saw, the value of all goods. The value of land thus has no exceptional character.

The fact that the prices of *labor services*, like the prices of

[31]The value of a piece of land is determined by the expected value of its services, and not the other way around. The value of a piece of land is nothing but the expected value of all its future services discounted to the present. Hence the higher the expected value of the services of land and the lower the value of the services of capital (rate of interest), the higher will be the value of land. We shall see later that the value of goods is the foundation for their prices. That the price of land can regularly be observed to rise rapidly in periods of a people's economic growth is due to an increase in land rent on the one hand, and to a decrease in the rate of interest on the other.

the services of land, cannot without the greatest violence be traced back to the prices of their costs of production has led to the establishment of special principles for this class of prices as well. It is said that the most common labor must support the laborer and his family, since his labor services could not otherwise be contributed permanently to society; and that his labor cannot provide him with much more than the minimum of subsistence, since otherwise an increase of laborers would take place which would reduce the price of labor services to the former low level. The minimum of subsistence is therefore, in this theory, the principle that governs the price of the most common labor, while the higher prices of other labor services are explained by reducing them to capital investment or to rents for special talents.

But experience teaches us that there are labor services that are completely useless, and even injurious, to economizing men. They are therefore not goods. There are other labor services that have goods-character but not economic character, and hence no value. (In this second category belong all labor services that are available to society, for some reason or other, in such large quantities that they attain non-economic character—the labor services connected with some unpaid office, for example.) Hence too (as we shall see later) labor services of these categories cannot have prices. Labor services are therefore not always goods or economic goods simply because they are labor services; they do not have value as a matter of necessity. It is thus not always true that every labor service fetches a price, and still less always a *particular* price.

Experience also informs us that many labor services cannot be exchanged by the laborer even for the most necessary means of subsistence,[32] while a quantity of goods ten, twenty, or even a hundred, times that required for the subsistence of a single person can easily be had for other labor services. Wherever the labor

---

[32]In Berlin, a seamstress working 15 hours a day cannot earn what she needs for her subsistence. Her income covers food, shelter, and firewood, but even with the most strenuous industry she cannot earn enough for clothing (see Carnap, in *Deutsche Vierteljahrschrift*, 1868, part II, p. 165). Similar conditions can be observed in most other large cities.

services of a man actually exchange for his bare means of subsistence, it can only be the result of some fortuitous circumstance that his labor services are exchanged, in conformity with the general principles of price formation, for that particular price and no other. Neither the means of subsistence nor the minimum of subsistence of a laborer, therefore, can be the direct cause or determining principle of the price of labor services.[33]

In reality, as we shall see, the *prices* of actual labor services are governed, like the prices of all other goods, by their *values*. But their values are governed, as was shown, by the magnitude of importance of the satisfactions that would have to remain unsatisfied if we were unable to command the labor services. Where labor services are goods of higher order, their values are governed (proximately and directly) in accordance with the principle that the value of a good of higher order to economizing men is greater (1) the greater the prospective value of the product, provided the value of the complementary goods of higher order is constant, and (2) the lower, other things being equal, the value of the complementary goods.[34]

A special characteristic of labor services that affects their value consists in the fact that some varieties of labor services have unpleasant associations for the laborer, with the result that these services will be forthcoming only for compensating economic advantages. Labor services of this kind cannot, therefore, easily attain a non-economic character for society. But the value of inactivity to most laborers is much less than is generally believed. The occupations of by far the great majority of men afford enjoyment, are thus themselves true satisfactions of needs, and would, be practiced, although perhaps in smaller measure or in a modified manner, even if men were not forced by lack of means to exert their powers. The exercising of his

---

[33]A laborer's standard of living is determined by his income, and not his income by his standard of living. In a strange confusion of cause and effect, however, the latter relationship has nevertheless often been maintained.

[34]The next two paragraphs appear in the original as a single footnote after "labor services" at the beginning of the third paragraph preceding.—TR.

powers is a need for every normal human being. That only a few persons nevertheless work without expecting economic compensation is due not so much to the unpleasantness of labor as such but rather to the fact that the opportunities to engage in *remunerative* labor are fully ample.

Entrepreneurial activity must definitely be counted as a category of labor services. It is an economic good as a rule, and as such has value to economizing men. Labor services in this category have two peculiarities: (a) they are by nature not commodities (not intended for exchange) and for this reason have no prices; (b) they have command of the services of capital as a necessary prerequisite since they cannot otherwise be performed. This second factor limits the amount of entrepreneurial activity in general that is available to a people. It especially limits to relatively very small quantities entrepreneurial activity that can only be performed if the economizing individuals in question have at their disposal the services of large amounts of capital. Credit increases, and legal uncertainties diminish, these quantities.

The inadequacy of the theory that explained the prices of goods by the prices of the goods of higher order that served to produce them naturally also made itself felt wherever the price of the *services of capital* came in question. I explained the ultimate causes of the economic character and value of goods of this kind earlier in the present chapter, and pointed out the error in the theory that represents the price of the services of capital as a compensation for the abstinence of the owners of capital. In truth, the price that can be obtained for the services of capital is, as we have seen, no less a consequence of their economic character and of their *value*, than is the case with the prices of other goods. The determining principle of the value of the services of capital is the same as the principle determining the value of goods in general.[35,36]

---

[35]A special characteristic of *price formation* in the case of the services of capital is due, as we shall see later, to the fact that these services cannot ordinarily be sold without transferring the capital itself into the hands of the buyer of the services of capital. There is a resulting risk for the owner of the capital for which he must be compensated by a premium.

The fact that the *prices* of the services of land, capital, and labor, or, in other words, rent, interest, and wages, cannot be reduced without the greatest violence (as we shall see later) to quantities of labor or costs of production; has made it necessary for the proponents of these theories to develop principles of price formation for these three kinds of goods that are entirely different from the principles that are valid for all other goods. In the preceding sections, I have shown with respect to goods of all kinds that all phenomena of *value* are the same in nature and origin, and that the magnitude of value is *always* governed according to the same principles. Moreover, as we shall see in the next two chapters, the *price* of a good is a consequence of its *value* to economizing men, and the magnitude of its price is always determined by the magnitude of its value. It is also evident, therefore, that rent, interest, and wages are all regulated according to the same general principles. In the present section, however, I have dealt merely with the *value* of the services of land, capital, and labor. On the basis of the results obtained here I shall state the principles according to which the prices of these goods are governed after I have explained the general theory of price.

One of the strangest questions ever made the subject of scientific debate is whether rent and interest are justified from an ethical point of view or whether they are "immoral." Among other things, our science has the task of exploring why and under what conditions the services of land and of capital display economic character, attain value, and can be exchanged for quantities of other economic goods (prices). But it seems to me that the question of the legal or moral character of these facts is beyond the sphere of our science. Wherever the services of land and of capital bear a price, it is always as a consequence of their value, and their value to men is not the result of arbitrary judgments (p. 119), but a necessary consequence of their economic character. The prices of these goods (the services of land and of capital) are therefore the necessary products of the economic situation under which they arise, and will be more

---

[36]The next three paragraphs appear in the original as a single long footnote appended to the heading of the present section. —TR.

certainly obtained the more developed the legal system of a people and the more upright its public morals.

It may well appear deplorable to a lover of mankind that possession of capital or a piece of land often provides the owner a higher income for a given period of time than the income received by a laborer for the most strenuous activity during the same period. Yet the cause of this is not immoral, but simply that the satisfaction of more important human needs depends upon the services of the given amount of capital or piece of land than upon the services of the laborer. The agitation of those who would like to see society allot a larger share of the available consumption goods to laborers than at present really constitutes, therefore, a demand for nothing else than paying labor above its value. For if the demand for higher wages is not coupled with a program for the more thorough training of workers, or if it is not confined to advocacy of freer competition, it requires that workers be paid not in accordance with the value of their services to society, but rather with a view to providing them with a more comfortable standard of living, and achieving a more equal distribution of consumption goods and of the burdens of life. A solution of the problem on this basis, however, would undoubtedly require a complete transformation of our social order.[37]

---

[37]See Schüz, "Ueber die Renten der Grundeigenthümer und den angeblichen Conflict ihrer Interessen mit denen der übrigen Volksklassen," *Zeitschrift für die gesammte Staatswissenschaft,* XI (1855), 171ff.