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On the Theory of Needs[1]

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Abstract: This text is Čuhel's own summary of his book *Zur Lehre von den Bedürfnissen* which was published in 1907 and has never appeared in English. His book has been most frequently quoted in the following contexts: (1) ordinal concept of utility, (2) the relation between economics and psychology, (3) the use of mathematics in economics, and (4) time preference.

[1] Originally published in Czech as "K nauce o potřebách", Sborník věd právních a státních, Vol. VII, Prague 1907, pp. 1-33. Translated by Pavel Chalupníček [Translator's note]

1 Introduction

1. Anyone who has dealt thoroughly with the basic teachings of economic science cannot overlook the fact that the term needs receives relatively little attention in the existing economic literature, even though some authors consider it to be the first basic notion of economic science upon which all other terms of this science are built. The clearest illustration of this assertion is the fact that the most elaborate German Encyclopedia of State Sciences ("Handwörterbuch der Staatswissenschaften") provides only a short treatise on this subject, which is described in eight brief lines inserted into an article about "Gut". This is not to claim that no economic author has addressed the theory of needs so far; we may find remarkable treatises about the classification of needs in the work of Hermann, about collective needs in the work of Wagner, about intensity of needs in the writings of many members of the economic school that has gained its good reputation particularly via Austrian proponents of the theory of value based on marginal utility. But if we want to learn about what has been explored about needs up to the present time we have to gather all the relevant pieces of knowledge from different authors, and when we finish this task we find that the opinions of even the most prominent economic authors about the nature and notion of needs in the sense of economic science are very inadequate. The reader may find persuasive arguments for this statement on pages 78-92 of my book.[2]

2. The greatest part of the blame for this unsatisfactory state of the existing economic literature is to be laid, in my opinion, on the fact that the term and notion of need is taken from the common language in which, as shown on pages 61-64 of my book, this word has more than 12 different meanings and that the previous authors assumed that they would recognize the nature of need if they analyzed general notions corresponding to the word "need". In order to reach the right opinion about the nature and notion of need in the sense of economic science it is necessary, I believe, to abandon the present method and take the same path that the natural sciences fol-

[2] Čuhel, Franz: "Zur Lehre von den Bedürfnissen, Theoretische Untersuchungen über das Grenzgebiet der Ökonomik und der Psychologie", Wagner, Insbruck, 1907, of which this article is a summary. This translation draws from previous English translation of a part of this book by William Kirby (esp. in part VI of the present text) published in: Israel M. Kirzner (ed.): Classics in Austrian Economics, Vol. 1, William Pickering, London 1994, pp. 305-338. [Translator's note]

low so successfully as they deal with a phenomenon, not paying any attention to the opinions held about it by common language.

2 The notion of needs in the sense of economic science

3. Phenomena that are the subject of economic science are a certain kind of human actions and their results. Each action is caused by one or more desires. A brief explication about how human desires emerge is contained in the first chapter of my book, of which I extract the following:

Human life seems to be a continuous chain of various states of the bodily organism and its various relationships to its environment, as well as various states of mind. If we summarize these states and relationships, of which some are favorable to maintaining and developing life (vital functions), and some unfavorable, under a common name, we get the notion of objective states of welfare. Their totality at a certain moment creates the total state of welfare. If we arrange various states of welfare according to the degree they contribute to the overall maintenance and development of a human being on one integrated scale, we get an objective scale of welfare in which the absolute zero point is the state of immediate death of that particular individual. The states unfavorable to life causing lesser failures of vital functions than death are aligned above this point, followed by states favorable to life. There is a relative zero point between these two kinds of states, similar to the freezing point on our thermometers. Similarly, as in the case of the thermometer, we may call the states of welfare under the zero point negative and those above zero positive. If one of the objective states of welfare is followed by another that is standing higher on the objective scale of welfare, we speak of an increase in objective welfare. In the opposite case we speak of a decrease in objective welfare.

4. Any time we come to realize that we are in a certain state of welfare we simultaneously recognize whether it is a positive or a negative one, because this recognition is in the first case usually accompanied by a pleasant feeling, in the second case by a unpleasant feeling. Based on these feelings we form our judgments about the positive

or negative nature of the given objective state of welfare. This mentioned basis of our judgments is not necessarily reliable in each single case, but if we use the corrections provided by subsequent feelings properly, we can recognize in most cases whether our various objective states of welfare are positive or negative.

5. The importance of feelings lies not only in the fact they are the last source of our knowledge of what the character our objective states of welfare is, but even more in that they are decisive regulators of our desires. For example, if a person is in a certain state of welfare and as he becomes aware of it, this is accompanied by an unpleasant feeling, this feeling arouses an endeavor in him. If this feeling is joined by the idea of a state which is, according to his belief, not accompanied by this unpleasant feeling, the endeavor is transformed into a desire to attain this envisaged state of welfare. But even if we are in a state of welfare accompanied by a pleasant feeling, a desire can be aroused aimed either at averting a state we believe would be accompanied by a less pleasant feeling, or at attaining a state we believe would be accompanied by a more pleasant feeling.

6. It is impossible to draw the conclusion based on this relationship between feelings and desires, as the proponents of hedonism do, that the true goal of all human desires and actions is a state of bliss, that is, a totality of all the states of mind accompanied by pleasant feelings and free of any unpleasant ones. In actuality, the desire to attain more pleasant feelings and eliminate unpleasant ones is merely a mechanism by which either the Creator, or nature, tries to bring animals from lower states of objective welfare to higher ones on this scale; in other words, to make them do what serves the maintenance and development of their life as individuals and species. Nevertheless, the objective states of welfare in which animals find themselves have as such no impact on will. Only their subjective correlates, that is, feelings, play this role. For this reason, it is possible to call feelings subjective states of welfare – pleasant feelings as a positive, unpleasant feelings as a negative subjective state of welfare. If a particular feeling is followed by a more pleasant feeling, we call this change an increase in subjective welfare; whereas in the opposite case we talk about a decrease in subjective welfare.

7. The previous exploration has explained that the ultimate goal of each human's desire is either to achieve an increase, or to avert a decrease in subjective welfare. But

this ultimate goal is often not the immediate goal of human desires. When it is, it is called a welfare desire.

8. A change in our state of mind and usually also a change in the external world are necessary to satisfy each such desire. However, every such change is conditioned by the effect of an additional cause. If we are aware of the connection between the desired change and its cause, the welfare desire is assigned a further goal, which is to put this cause into effect. This intentional implementing of forces in order to achieve this result, which we consider to be the cause of the desired result, we call the use or utilization of these forces or of their material medium (means of satisfaction); we call the desires with such further goals desires leading to use or use desires.

9. For this kind of desire to be aroused inside a person, it is necessary that the person have 1. an effective welfare desire and; 2. a judgment that this desire can be satisfied by the use of certain means of satisfaction.

Ad 1. A person who has does not have for example the (welfare) desire to hear better, cannot have the (use) desire to use a hearing aid. A welfare desire cannot arise in somebody who is convinced that the envisaged increase in welfare can be accomplished without his intentional endeavor, for example via reflexive or instinctual motions; or, on the contrary, that all his endeavors to achieve the envisaged increase in welfare are in vain.

A welfare desire can become ineffective if there is a stronger welfare desire competing with it, so that if one is satisfied, the other must remain unsatisfied, because both needs must be satisfied at the same time. One who wants, for example, to show his devotion to God by fasting on a certain day would not have the (use) desire to eat on that day.

Ad 2. The next condition for arousing use desire is a judgment that certain means of satisfaction are suitable for accomplishing the desired increase in welfare. One who, for example, considers certain mushrooms poisonous would have no (use) desire to eat them. The judgment does not have to be absolute; it is sufficient if it is probable to a certain degree. It is also not necessary for it to be objectively correct. There are a great number of use desires leading to utilization of various items (for example various mystic means) that cannot actually cause any increase in welfare.

10. The same conditions, on which the formation of use desires depend, are also decisive for the continuation of such desires. Thus, when a particular welfare desire ceases, for example, because it has been fully satisfied, or when it is supplanted by a stronger competing desire, or when the person with this desire changes his judgment about the suitability of the means used to satisfy it, the desire also ceases.

Desires aimed at the use of certain means of satisfaction can become ineffective if there are some stronger competing desires to use the same means of satisfaction or needs to be satisfied at the same moment.

11. If we want to use some means of satisfaction, we have to have it in our possession first. This means such a relation of the means of satisfaction to the needing person that his desire aimed at the use of this means of satisfaction, whenever it arises, can be satisfied without any delay. Only a few means of satisfaction exist in which it is not necessary to exert any effort, such as for example, breathing. Almost any other means of satisfaction in order to be usable must first be brought into this relation through human activity. This activity presupposes special desires aimed at this goal. We may call these desires possession desires. Considering that the possessions we have acquired may be taken away from us again by the action of natural forces or the activity of other people, these desires aim not only at acquiring but also at keeping the possession.

12. In order for a possession desire to arise one has to have:

1. either a) a present welfare desire or b) a judgment that he will have such a desire in the future;

2. a) in the case of acquisitive desires, a judgment that the person does not possess or will not possess the means of satisfaction when he wants them; b) in the case of the desire to keep possessions, a judgment that the possession of the means of satisfaction will be forfeited if the person needing them remains inactive;

3. a judgment that acquiring or keeping possession of the means of satisfaction is not impossible.

Ad 1. Regarding the possession desires that are aroused by present use desires, it is sufficient to refer to what was said in § 9. A possession desire concerning certain means of satisfaction can be aroused even if the given person does not have any present use desire related to this means of satisfaction. It is enough that he has either a certain or at least to some degree probable judgment that this desire will exist in the future.

Thus, merely the idea of future use desire is not enough to create a possession desire at present; there also has to be the aforementioned judgment, or, even without formulating a formal judgment, an opinion that the use desire for the satisfaction of which the means of satisfaction shall be used, will arise in the future. Likewise, some authors are not correct in their consideration that the present psychic reflection of a future use desire is a preliminary feeling.

Ad 2 and 3. The aforementioned judgments do not have to be certain; it is sufficient they are probable to some degree. But if the person with needs is fully convinced that he possesses or will possess the necessary means of satisfaction when he needs them, or that these means of satisfaction cannot be taken away from him, or that any endeavor to acquire them is in vain, then the possession desire related to such means of satisfaction cannot arise.

The same conditions on which the arousal of the possession desire depends, are also required for its continuation. If there is a conflict among several possession desires, such that only one of them can be satisfied, the strongest one suppresses the weaker ones.

13. The trinity of desires that has been discussed in the preceding paragraphs is very significant for economic science. We said at the beginning that economic science deals with a certain kind of human actions and their outcomes. Now we may be more precise and state that the actions and their outcomes with which economic science deals aim at acquiring and sustaining possession of certain means of satisfaction that are considered necessary for the satisfaction of use desires. Economic science cannot content itself merely with exploring, describing, and classifying these actions and their outcomes; its duty is also to interpret them, that is, to explore their causes and reduce them to the smallest number of notions and laws possible. This duty would not be fulfilled if it only limited itself to pointing out that economic phenomena are the outcomes of certain kinds of desires we labeled possession desires.

If it is a theoretical science, it must also answer questions as to why people treat different parts of the physical world surrounding them in such distinct ways, desiring possession of some parts and not of others, and why desires to possess different goods or the same goods by different people, at different places, and in different times vary in their intensity so much. But if it is a practical science, it should explain and substantiate what parts of the physical world around us we require and what the intensity of the desires for various goods by different people, at different places, and in different times is; in other words, what possession desires and what intensity of such desires are purposeful, reasonable.

These answers can be provided by economic science only if it takes notice of use desires as well, because the existence and intensity of possession desires is conditioned by the existence and intensity of use desires in the first place.

14. Once we know that every use desire has its origin in a welfare desire, we may assume that economic science, in order to explain economic actions perfectly, has to return to welfare desires. But this assumption is not correct. Human knowledge does not constitute one single science, but breaks down into a number of separate disciplines, within which there is a certain division of labor. Due to this division of labor those disciplines do not have to trace the causal relations of the phenomena under scrutiny back to the ultimate causes, but can stop at some intermediate causes which do require further explication in other sciences, but which are given facts and quantities for this particular science.

Then it is necessary to keep in mind that the existence of a welfare desire is not enough for a use desire to arise, but there must also be present a judgment that certain means of satisfaction can cause a change that will satisfy this desire. Such judgments have long been a generally accepted domain of technological, medical and similar sciences. If economic science would like to go so far as to use welfare desires in its explication of causes of economic phenomena, the border between it and the mentioned sciences would disappear.

15. Thus, use desires are given facts and their intensities are given quantities for economic science. The investigation of what welfare desires people have, from which causes these desires arise, what intensity they have, and what things are suitable for

their satisfaction does not belong to economic science, but to related sciences.

The foundation of economic science may yet to a lesser extent than in case of welfare desires be comprised of emotions that cause these desires and thus lie even one station further behind them. The border station where economic science takes over the vehicle of exploratory work from the neighboring sciences is use desires. This notion, as can be easily shown, creates the basis for the notion of a good; both notions then create the substantive foundation for the notions of economy and economic value. So it is possible to build, either directly or indirectly, all the other basic notions of economic science on the notion of use desire, whereas these other notions are not necessary for defining this notion itself. For this reason, the notion of use desire should be considered the first basic notion of economic science, or, more correctly, the most important part of this notion.

16. The human mind, as is well known, is very limited. As we can perceive only a few things at a time and imagine only a few things at a time, we can have only a small number of present needs at a given moment. But if we can say that someone knows something at a particular moment, even though he is neither presenting this judgment nor thinking of it at that moment, when one has the capability (disposition) to present such a judgment as soon as his attention turns to an inducement of this judgment, then we can certainly also claim that someone has a desire at a moment when he is not aware of the respective endeavor to satisfy it, but simply when he has the disposition to become aware of this desire as soon as his attention turns to the goal of this desire.

Such dispositions to desires are of the same importance to economic science as present desires and therefore we have to take into account – besides welfare, use and possession desires – also the dispositions to all these desires. If we merge the notion of use desire with the notion of disposition to this desire, we obtain one notion that should be considered the first basic notion of economic science and that we may call use need. We can come to the notions of welfare need and possession need in a similar manner.

17. Considering the numerous meanings of the word need in common language, it would, of course, be better if economic science abandoned this word. But until

a better term is suggested by a more competent person, it is necessary to keep in mind that in the preceding cases the word need was used without any reference to the meaning it holds in common language, as if it were deliberately created for the notions above. Thus, no objections can be raised against the correctness of these notions from the point of view that they contradict the existing common language meaning of the word.

Because the theory of needs constitutes a substantial part not only of economic science but also of many other sciences, particularly ethics and cultural history, it is probable that it will dissociate itself from these sciences later as a separate science for which the name chreonomics (from χρέος = need) seems appropriate. Considering this we can call the three notions of need in question chreonomic notions.

18. It is an attribute of many welfare and use desires that after being satisfied once they do not pass off absolutely, but recur after some time; this alternation of desire and satisfaction repeats for one's whole life in the case of some desires, such as the desire to eat. Hence, it is necessary to distinguish between one manifestation of welfare and use desire from the moment they enter one's mind until the moment they disappear as a consequence of satisfaction or other reason, not only as present desire, but also as a disposition to desire; and the totality of all such manifestations in a certain period. The first notion may be called the manifestation of desire, the second one as welfare or use or possession desire in a narrower sense. Desire goes through various stages that differ in intensity during each manifestation of the drive for satisfaction. These stages may be called phases of need. If we depict an individual manifestation of desire with a refracted line, each phase corresponds to the straight lines this refracted line consists of. The phases that occur during the act of satisfaction are of special importance to economic science; thus, we shall give them a special name – phases of satisfaction. Manifestation of need and phase of need are then similar notions as beat and phase of beat in the case of a pendulum.

If we sum up the use needs of different people concerning the same kind of good, for example bread, we get the notion of a class of use needs; we could arrive at the notions of a class of welfare and possession needs in a similar way.

If we sum up all the use needs of different people concerning the same family of goods, for example eatables, we create the notion of a family of use needs, to which the notions of families of welfare and possession needs are similar.

19. Thus, in the preceding paragraphs we have identified eight different notions that are in the common language and also in economic science hitherto labeled with the same name – need. Three of them are paratactic – welfare, use and possession need; and five of them are hierarchical, in order from the narrowest to the broadest – phase of need, manifestation of need, need in a narrower sense, class of needs, and family of needs. It is surely in the interest of further development of economic science to become properly aware of the differences between these various notions and to examine them carefully while using various terms for them.

3 Self-regarding, other-regarding and mutual needs

20. Our feelings do not signal only the positive or negative character of our own objective states of welfare, but also those of other people, for example of our children, parents, spouses, siblings etc. In the latter case we may call them other-regarding feelings; in the former, they should be called self-regarding feelings. An unpleasant feeling (sympathy) arises very often inside us if we realize that somebody is suffering. Similarly, but more rarely, because only a few people are free of all envy, a pleasant feeling arises inside of us when we realize that someone else has a pleasant feeling. Both of these feelings should be ranked among the subjective states of welfare, but they are induced states as opposed to the original states discussed in § 6.

21. On the basis of what has been said about the mechanism of our will, we may conclude that realizing or averting induced states of welfare can also be the aim of welfare desires. Because the satisfaction of such desires leads to immediately increasing or averting the decrease in others' objective or subjective welfare, it is possible to call them other-regarding, whereas the desires mentioned in § 7 are called self-regarding.

22. We avoid using the notions of altruistic and egoistic feelings and desires here, because they have a moral undertone. By egoism is meant a direction of will that prefers one's own desires, which are objectively less important, to other desires which are objectively far more important. Altruism, on the other hand, stands for a direction

of will that prefers other desires which are objectively equally or less important, to one's own desires. These notions thus refer to the relative intensity of two desires, but we need a term to label the direction of single desires.

23. A case often occurs that for a particular person A, realizing an increase in his own welfare is not possible either at all or as perfectly or as cheaply unless there is a simultaneous increase in the subjective or objective welfare of one or several other persons M, N, O etc. It may happen, for example, that protecting person A's property from flooding with a dam cannot be done without building a dam that also protects the property of persons M, N, O etc. Therefore, if A wants to achieve the desired increase in his welfare, he must desire the realization of a similar increase in welfare for persons M, N, O etc. Such welfare desires are called mutual.

24. By combining these desires with dispositions for them we obtain the notions of self-regarding, other-regarding and mutual needs.

Use desires and needs may also be divided into self-regarding, other-regarding and mutual, according to which category the welfare desires or needs that arouse them belong.

If somebody desires to achieve or sustain the possession of certain means of satisfaction for himself, it is a self-regarding possession desire; if the aim of his desire is that someone else achieves or sustains this possession, it is an other-regarding possession desire; and if the latter desire is a condition for satisfaction of the former desire, it is a mutual possession desire.

4 Individual and collective needs

25. Human society, as is known, consists of a great number of varied groups, which comprise a greater or smaller number of individuals, living either at the same time or sequentially. Among these groups, special attention is required for those whose members share a certain characteristic that creates a substantial part of their personality (nationality, religion, occupation, etc.). Because of this, there is such a relation-

ship among them that certain subjective or objective states of welfare, in which some of them find themselves, are signaled to others as well, if those are aware of this aforementioned common characteristic. This happens through feelings that, as opposed to the personal or individual feelings that we dealt with in the previous two chapters, may be called communal or collective. If for example some individual members of one nationality or confession, while manifesting their nationality or confession, or because of their affiliation to it, acknowledge some injustice or detriment, an unpleasant feeling is also awakened inside of other compatriots or co-religionists. Such a feeling arises only if these persons consider themselves to be of the same nationality or confession (if they, as it is said, "feel" that they belong). As soon as they cease to feel that they belong, this unpleasant feeling does not appear any more. In fact, they could even have the opposite feeling on these occasions.

26. It is not the task of economic science to investigate what characteristic the members of such groups must have in common. Therefore, we limit ourselves to the observation of the fact that these groups do exist. They have been given various names in common and scientific language; in order to use one term for them all, we shall call them communities or collectivities.

27. Both individual and collective feelings seem to have a pair of teleological functions: first, they allow us to distinguish the positive and negative nature of the collectivities' objective states of welfare; and second, they induce instinctive and intentional activities aimed at replacing the present states of the collectivities' lower standing on the objective scale of welfare with a higher one. Among the states and relations in which members of some collectivities exist, there are not only states that contribute to maintenance and development, but also those that lead to the weakening and destruction of the lives of the entire membership of the given collectivity. By analogy to § 3, we may call the former states positive, the latter, negative collective states of welfare.

28. I do not dare to provide a fully satisfactory general answer to the question as to what the difference is between collective and individual states of welfare. But I am willing to try to elucidate this difference using a special example. There is, as is known, a more or less fierce struggle for survival among all animals. This struggle can be observed among members of diverse human collectivities as well. Victory in

this struggle will usually be obtained by the members of the collectivity that is led by these members jointly and that has a better adapted organization for this purpose. Single individuals whose welfare is under threat just because of their membership in this collectivity thus have a better prospect of avoiding this impending detriment the greater the extent to which all the members' power is allowed full play. So everything that magnifies the power of all members of a given collectivity is of the same importance as increasing each member's own welfare; contrariwise, everything reducing the power of the whole means decreasing each member's own welfare, if this welfare is conditioned by affiliation with the collectivity. Consequently we may assume a positive collective state of welfare if this collectivity is well organized and disciplined, if it has a large number of members and each member by himself is strong; the opposite circumstances is considered as a negative collective state of welfare.

29. Our will is influenced by objective collective states of welfare to a similarly small extent as by individual ones. A direct goal of our desires is usually the realization of collective pleasant feelings and eliminating or averting collective unpleasant feelings, which are subjective correlates corresponding to objective collective states of welfare, either positive or negative ones.

30. Collective states of welfare are without any question the states of the individual members of the given collectivity, because there are no other beings apart from them to whom we could ascribe these states and who would have minds through which to feel them. In spite of this, these states cannot be considered to be individual states of welfare, because the persons that are members of the given collectivity do not have and are not aware of these states as individuals, but only as members of the given collectivity. For as soon as they cease to be members of the collectivity, these states of welfare no longer apply to them, and their feelings no longer signal these states to them. We should not be misled by legal science that regards collectivities as independent persons, so called corporate bodies/artificial persons, because these are only fictions for which there is no place outside of this science. After all, every independent personality presupposes an independent mind, which collectivities without any doubt do not possess.

31. The desires that have as a direct aim the realization of pleasant collective feelings or the elimination of unpleasant collective feelings are called collective welfare

desires. These desires are also the desires of those individuals of which the collectivity consists, because there is no other being blessed with a mind in which the desire could arise. Hence, there could be a conjecture that collective desires do not even exist. This opinion would be wrong, because the persons who are aware of such desires do not have them as individuals, but as members of the given collectivity, not as a consequence of their individual feelings, but as a consequence of their collective feelings. It is not necessary for all members of a collectivity to have such feelings and desires; it suffices if only the members whose will represents the collective have them. Other members may be forced to have such desires, which is absolutely in order in case the positive or negative character of the objective states of welfare of their own collectivity is improperly signaled to them because of their wrong feeling endowment. Collectivities as well as individuals may authorize other persons, even non-members, to become aware of certain collective desires and thereby arrange their realization.

32. In instincts and desires caused by collective feelings one must see the psychic cohesive power that maintains collectivities as formations different from other individuals and human groups; this should be ascribed to the fact that collectivities such as state, community, church, nation, etc. are not only logical names of a class of elements, mere abstracts, but real phenomena, kinds of superindividual organisms, towards which individual members are in the same relation as individual cells towards the whole organism of an individual.

33. By merging the notions of collective welfare desire and disposition to such a desire, we obtain the higher notion of collective welfare need.

We can get to the notions of collective use and possession desire and need in a similar way as that in which we arrived at the notions of individual use and possession desire and need in §§ 8 and following.

All these collective desires and needs may be divided into self-regarding, other-regarding, and mutual desires and needs.

34. Combinations of collective and individual needs are very common, and many of them are of great significance to economic science, especially financial science. If, for example, wastewater from a factory pollutes a creek to such an extent that near-by residents are considerably annoyed by its fetid vapors, this state would be

considered as a negative state of welfare for those persons, and their awareness of this state would arouse a welfare need aimed at its elimination. If such an impropriety concerned only a small part of the collectivity, it would be regarded as an individual negative state of welfare of these members. But if the number of members affected by such an impropriety is large enough to substantially impair or endanger the power and prosperity of all the members, the individual negative states of welfare of the concerned members are accompanied by a collective negative state of welfare. Then eliminating this state becomes an aim of a collective welfare need, manifested in a law ordering the owners of the factory to acquire equipment for proper treatment of the wastewater before it is discharged into the creek. After this collective need arises, the individual needs do not cease to exist, but the collective need arises alongside them. Thus we can call it an accessory collective need.

35. In the case presented, all individual needs belong to the category of self-regarding needs. But they can also belong to categories of other-regarding or mutual needs. Taking care of children born out of wedlock is at first an other-regarding individual need of their mothers. But if a law were passed imposing a child support obligation on fathers, this law would be a manifestation of an accessory collective need related to those other-regarding individual needs. If properties of a bigger number of owners are subject to more frequent flooding, their need to eliminate this negative state of welfare is primarily the mutual individual need of these owners. But if a law is passed forcing the minority to submit to the decision of the majority to build a protective levee, it demonstrates that the collectivity whose authorities passed this law considers the state of the owners threatened by flooding to be a collective negative state of welfare. As a result, the individual mutual needs of the property owners are joined by an accessory need of the collectivity of which they are members.

36. In the cases discussed so far the collective needs were at first welfare needs. But if an administrative authority needs to enforce the decision that the factory owners use waste-treatment equipment, such enforcement is preceded by a need to use certain administrative procedures and suitable clean-up methods. This accessory need is thus a collective use need.

If the authorities do not possess the goods necessary to carry out the operation (for example, the material to build the water treatment equipment to be installed at the expenses of the factory owners), then the satisfaction of the aforementioned need is conditioned by the satisfaction of the collective possession need, which is also only an accessory need.

Sax called the activity of the collective authorities in response to the aforementioned collective needs regulative activity, which can be either proscribed or arranged.

37. In the cases we have mentioned, accessory collective needs are only rarely use or possession needs. This happens only if the directives in which welfare needs are manifested are not fulfilled. But there are many other cases in which it is obvious from the very beginning that in order to satisfy an accessory collective welfare need, there must be a collective use need as well. This would be true, for instance, if the state limited itself only to passing the aforementioned law and, as a result, a great number of children born out of wedlock were very poorly taken care of. Therefore, in our times, the states or autonomous authorities found institutions for fostering these children; but this decision had to be preceded by a collective use need aimed at utilizing the power of appropriate public servants relevant goods (buildings, furniture, food provisions), etc. And to satisfy this need there must be a collective possession need aimed at acquisition and possession of these powers and goods.

38. A need for city inhabitants to acquire a sufficient supply of potable water is certainly first and foremost an individual possession need. If there is an abundance of potable well water or if there is a private entrepreneur willing to lay the duct and supply the inhabitants with potable water for a reasonable price, the community has nothing to do with this need. But if the well water is contaminated, and if there is no such entrepreneur, then, because drinking contaminated water is a source of communicable diseases, which must be considered as negative collective state of welfare, there arises an accessory collective welfare need aimed at eliminating this negative state. This need can be satisfied by laying the duct at communal expense, which has to be preceded by a collective possession need aimed at acquiring a sufficient supply of potable water to distribute to the inhabitants.

39. So in this case the collective need standing in the forefront is a possession need, whereas in the case mentioned in § 37 this place seems to be occupied by a collective use need. The difference can be explained by the fact that in this case the

collective welfare need is satisfied if the authorities simply give the inhabitants the chance to acquire an adequate supply of potable water, while in the previous case the desired state of welfare for children born out of wedlock, which seems to be altogether a collective state of welfare, could not be achieved if these children, or their mothers as the case may be, were left to decide by themselves whether and how they would use the institutions founded for them. In such cases the collectivity must also leave the implementation to its authorities, and thus must also have the respective use needs.

40. The collective use and possession needs that we dealt with in the last two paragraphs give rise to an activity by the collective authorities which Sax calls direct own activity. This activity is appropriate only if a regulative activity is unable to bring about the increases in collective welfare or avert the decreases in welfare that are the aim of the collective needs, either because the orders and punishments do not seem to be effective enough to reconcile the individual needs of the collectivity's members with collective needs, or because the physical, mental or economic powers of the members are not sufficient to carry out the activities necessary for the satisfaction of the collective needs.

41. This direct activity by collective authorities is carried out by means of either public companies or public institutions. It is possible to talk about a public company if the foremost collective needs to be satisfied are possession needs; and we talk about a public institution if these needs are use needs. I believe this sentence explains the difference between a public company and a public institution much more accurately and clearly than other economic authors have been able to do, since they did not realize the difference between collective use needs and collective possession needs.

42. We shall not confuse combinations of the individual and collective needs that we have just discussed with such cases in which the same means of satisfaction serve both individual and collective needs that in other respects have nothing else in common. In these cases we talk about the competition of individual and collective needs. An example of this competition is railroads, that are used not only for transportation of persons and private goods, i.e. for the satisfaction of individual needs, but also for transportation of military and war material, i.e. for the satisfaction of collective needs.

5 Some other classifications of needs

43. As we have distinguished two classifications of needs in the previous two chapters, in this chapter I want to show as concisely as possible only those of 27 other classifications introduced in the fifth chapter of the aforementioned book that have the greatest importance for economic science.

a) Because economic science deals solely with economic needs, it is first necessary to determine the difference between them and non-economic needs. To do so, it is necessary to understand the terms economy and economic good. However, the exploration of these terms was not an aim of the aforementioned book. Thus we have to content ourselves with this sentence: Possession economic needs are those needs whose direct goal is acquiring or sustaining possession; use economic needs are those needs whose direct goal is the use of economic goods. Other needs have to be considered non-economic, and they do not come into economic science.

b) Welfare needs aimed at achieving an increase or averting a decrease in objective welfare are called objective; those welfare needs aimed only at achieving an increase or averting a decrease in subjective welfare are called subjective needs.

If the judgment about the fitness of the means of satisfaction of a use need is objectively true, we call this need a correct need. If this judgment is only subjectively true, we call this need incorrect.

Correct needs aroused by objective welfare needs are called real needs in common language; other needs are putative needs.

c) Welfare needs are positive if their direct goal is to achieve an increase in welfare; negative if their direct goal is to avert a decrease in welfare.

It is possible to distinguish in a similar way between positive use needs, whose direct goal is to utilize some means of satisfaction, and negative use needs, which seem to be resistant to the utilization of some means of satisfaction, because – besides pleasant effects – they cause some unpleasant effects as well.

Possession needs can also be positive or negative. But the latter category does not include resistance to the loss of possession of good B, which one has to give up in order to obtain good A, because this resistance is in fact a maintaining possession need. We may include there, for example, resistance to possession of a stolen good or resistance to an effort one has to undergo to obtain or maintain possession of a good.

d) The goal of a welfare need is not always achieving one increase or averting one decrease in welfare. It is very common to want to achieve several increases or avert several decreases in welfare at the same time, as is the case, for example when such effects are caused simultaneously by the use of certain means of satisfaction. Considering this, it is possible to classify both welfare and use needs into simple needs and complex needs. In the latter case, one of the needs is usually a main need and the others are secondary needs.

We should distinguish between complex use needs, aimed at utilizing the means of satisfaction existing as a single unit, parts of which cannot be the subject of special use needs, and complementary use needs, each related to a different means of satisfaction if these needs create together a sort of a whole because their simultaneous or near simultaneous satisfaction is called for with greater intensity than is the sum of the intensities of all these desires satisfied separately.

A similar distinction between simple, complex and complementary needs may be made in the case of possession needs. Complex possession needs relate to several goods, possession of which is acquired simultaneously, as, for example during the production of corn and straw, flour and bran etc. Complementary possession needs arise from similar use needs, as, for example, needs related to factors of production of the same good.

e) Given the diversity of effects of acts of satisfaction, it is possible to divide welfare and use needs into needs aroused by pain and needs leading to pleasure. In the first case, the effect of the act of satisfaction lies in neutralizing the incitements arousing the need with the incitements resulting from the act. In the second case, the incitements resulting from the act of satisfaction and the incitements by which – or by the idea of which – the need was aroused are identical. Needs consisting of both categories are called mixed needs.

f) Activities necessary for the satisfaction of an economic need, i.e. for bringing the means of satisfaction from its natural conditions into the state that we call possession for immediate use, are usually not done uno tractu, but in several stages. In each of these stages, the particular means of satisfaction is in the possession of a particular person, but each of these possessions has, so to speak, a different degree of ripeness. If we call the stage in which the economic activity ends and the consumption activity begins economic possession of the first order, it is possible to call such possession needs aimed directly at acquisition or maintenance of the possession "possession economic needs of the first order". Similarly, we call the stage immediately before the possession of the first order economic possession of second order, and the needs aimed at the acquisition or maintenance of this possession "possession economic needs of second order". In an analogous way we can come to possession economic needs of the third, fourth order, etc. All these needs with the exception of needs of first order can be summarized by the term possession economic needs of higher orders.

Use needs may also be classified by order.

g) If person B, possessing a certain good, is legally obliged to transfer the possession of the good after a request from person A to this person, and if there is some probability that person B will fulfill this obligation, it is also possible to say that person A possesses the good. As opposed to the mode of possession we have been dealing with so far (direct possession), we may call this possession indirect. Thus we may also distinguish between direct and indirect possession needs, whose immediate goal is to acquire or maintain direct or indirect possession.

h) If the one who is making up an economic balance sheet is aware of use needs at this particular moment as present desires or dispositions to such desires (§ 10), these needs may be called present needs. Those needs which he at this particular moment considers likely or certainly to appear in the future, resulting in the emergence of possession needs in the present time, are in the sense of economic science future needs. If someone used goods bought on credit to satisfy use needs in the past and if he has possession needs in the present time aimed at acquiring these goods in order to repay them, we say that he has a past need.

i) The classification of needs into collective and individual is related to the classification into public and private needs, which takes into account whether these needs are satisfied through public law corporations, entitled to carry out governmental matters, or individual persons or companies and corporations created under private law.

unsatisfied, result in the extinction of a particular collectivity, especially of a nation-state, or substantial disturbance of or threat to its welfare. Other manifestations or phases of manifestations of needs may be called relative.

q) The needs that we have just labeled as absolute correspond to those which Wagner calls existential needs of the first order. The needs that he calls existential needs of the second order are those relative needs whose satisfaction is "according to the custom and tradition" of certain regions and certain epochs considered necessary for each person aspiring to be a member of a certain social-class. The quantity and quality of goods the consumption of which is conditioned by the kind of needs characteristic of a certain class, region or epoch constitutes the so-called standard of living for this class, region or epoch.

Comfort needs aim at achieving certain more refined material enjoyments without any regard as to whether their satisfaction requires membership in certain social-class or not, whereas cultural needs aim at achieving more refined mental enjoyments, particularly aesthetic or intellectual. Finally, we should mention also luxury needs, aimed only at parading real or ostensible wealth; satisfying these needs requires a greater amount or higher quality of goods than otherwise would be necessary, for technical reasons. Such needs belong together with extravagant needs in the category of subjective (irrational) needs.

6 On the commensurability of needs

44. In the case of every welfare desire – besides the feeling or idea of this feeling, through which this desire is evoked – it is also possible to distinguish particularly between a drive for satisfaction and the idea of an increase in welfare, the achievement of which is the goal of the drive for satisfaction. It is well known that two welfare desires, even if they are aimed at achieving increases in welfare of the same kind and duration, are not always equally strong; and also that – ceteris paribus – the stronger of the two welfare desires usually is the one which aims at the achievement of a more prolonged increase in welfare. Thus the welfare desire is a two-dimensional quantity, depending on the duration of the increase in welfare which is to be achieved and the intensity of the drive for satisfaction. This quantity may be compared with the attrac-

tion which the earth exerts on the bodies on its surface and which depends first on the mass of the body concerned and second on the intensity of the force of gravity. As a result of this attraction, the bodies exert pressure on the surface they rest on, which we call weight, and the cause of which general opinion seeks in the properties of the bodies themselves. Similarly, common language seeks the cause of the fact that certain states of welfare are the goals of welfare desires and that certain bodies are objects of use desires in the properties of the desires in question, and uses analogous terms: importance, significance, utility and suchlike. Economic science has so far followed this common language use, even if it has recognized that the immediate cause of the aforementioned phenomenon does not inhere in the given states of welfare or bodies, but in our welfare and use desires.

45. As I wish to show that the theory of needs can be explained in a way formally corresponding to the contemporary state of factual economic knowledge, I term this two-dimensional quantity, manifesting itself in present welfare desires and dependent on the intensity of the drive for satisfaction and the duration of the increase in welfare, as welfare egence. If the welfare desire is positive, its egence is positive as well; if the welfare desire is negative, its egence is negative too. Instead of the latter term we may also use the word disegence.

The two-dimensional quantity, dependent on the intensity of the drive for satisfaction and the amount of means of satisfaction, is manifested also in the case of use desires. This quantity can be called use egence, either positive, or negative (disegence). Instead of this word, economic science has so far been using the term utility.

We can get to the term of possession egence in a similar way. By this we mean a two-dimensional quantity dependent on the intensity of the drive for satisfaction and on the amount of the means of satisfaction, the possession of which is to be acquired or sustained. The latter term corresponds to the existing notion of economic subjective value.

46. It is possible to maintain as an a priori fact that the egences of all welfare desires that a particular person feels actually or potentially at a given moment are not equal. For if they were equal, there could be no decision reached, since human will-power is so organized that only the desire which surpasses all others existing

simultaneously can become a person's will. However, since numerous decisions of the will regarding the satisfaction of desires are made every day, the desire which becomes a person's will must have been stronger than the competing desires. This way of constituting the decisions of our will is the best means of recognizing which of two given desires has a large egence.

47. Based on what has been said, it will not be hard to answer the question of whether different needs are commensurable with each other. If the needs to be compared are understood as several present manifestations or phases of manifestations of welfare desires which still await satisfaction, and if commensurability is taken to mean the possibility of determining which of these needs has the larger egence or disegence, such needs definitely are commensurable.

The criterion for comparing the commensurability of needs, however, is not – as some authors say – the intensity of the accompanying feelings, but the size of their egences.

Not only positive welfare desires but also negative welfare desires are commensurable; not only self-regarding, but also other-regarding and mutual; not only individual, but also collective welfare desires. Our experience also teaches us that even use and possession desires are commensurable, not only with each other, but with welfare desires as well.

48. Comparing two egences is very similar to weighing two objects using a balance, if each object is placed on one of its two scales. Such a balance can be used not only to determine which of the two objects is heavier, or if they have the same weight, but also what multiple of some other object's weight, accepted as a unit of weight, each object's weight is equal to. This operation is called measurement. It is only possible to measure quantities for which there is a unit of measurement which is available in so many completely identical and constant examples that a quantity which matches the quantity to be measured can be assembled from it (direct measurement), or matches some other quantity whose quantitative relation to the quantity to be measured is known (indirect measurement).

49. But is it possible to state that welfare desires, or their egences, are commensurable if by commensurability we mean the possibility of measuring them in the

aforementioned sense? Since it is possible to ascertain that the egence of a welfare desire aimed at an increase in welfare caused by the consumption of an apple (briefly: the welfare egence in respect of an apple) is equal to the welfare egence in respect of 15 plums, and that the welfare egence in respect of a pear is equal to the welfare egence in respect of 10 plums, it would also seem that the egences in respect of an apple and a pear are measurable with the use of the egence in respect of a plum. However, this conclusion is false, for – as will be shown later (§ 58) – the egence in respect of 10 or 15 plums, if consumed immediately one after the other, is not 10 or 15 times higher than the egence in respect of a plum of the same quality, but only perhaps 9 or 8 times, or 13 or 12 times, higher and we are not able to determine the exact number. Even if we wanted to avoid the difficulty caused by Gossen's first law and stipulated the egences in respect of apples and pears with the help of the egences in respect of plums consumed in extended intervals of time, for example with a gap of one day, we still could not be sure that the egence in respect of a plum eaten today has the same intensity as the egence in respect of a plum eaten yesterday. We cannot avoid the disruptive effects of Gossen's first law even if we find, for example, seven different goods S_1 to S_7 and we find out that the welfare egence in respect of each of the goods S_2 to S_7 is equal to the welfare egence in respect of good S_1, and that the welfare egence in respect of good S_n is equal to the sum of the egences in respect of goods S_1 to S_7. First of all, this procedure is so lengthy that it is unsuitable for determining large egences. If anyone believes that in the modern exchange-based economy this statement does not apply, because it is very easy to find which goods have the same price, for example of one crown,[3] it may be said in reply that the welfare egences in respect of various kinds of goods obtainable for the same price are not necessarily equal, because these egences – as is known – are only the determinants of the exchange value of goods. But besides that, this way of determining egences is substantially flawed in the following way: If we compare the egence in respect of good S_3, or S_4 etc. with the egence in respect of good S_1, we cannot be certain that the latter egence is still the same as it was when we compared it with the egence in respect of good S_2. Furthermore, we have to keep in mind that the more goods we take into account while determining some larger egence, the greater is the probability that some of these goods will be more or less perfect substitutes. As a result, the sum of the egences in respect of these two

[3] Crown (in Czech "koruna") was an Austro-Hungarian currency. [Note of the translator]

goods is no longer equal to double the egence in respect of each of these goods by itself.

So we see that the measurement of welfare egences is not practicable because, if several egence units are taken together, their complete equality with one another cannot be verified.

This applies to use and possession egences as well.

50. If it is not possible to measure egences, it does not necessarily imply that there is no way to determine them numerically. It is possible, for example, to determine by means of Mohs' scale if a certain mineral has a second or third or tenth degree of hardness, even if the measurement of hardness is impracticable. We can find similar numerical representations for egences too if we establish a scale of egences, and if we determine what degree on this scale a particular egence is equal to.

The formation of ideal welfare and use egence scales is dealt with in detail in §§ 276-279 of the aforementioned book.

51. In order to determine possession egences, economic relations have been using since time immemorial a range of scales, the individual steps of which are created by the egences in respect of various multiples of a monetary unit. If this unit is for example one heller,[4] the possession egence in respect of the first heller is the first degree of this possession egence scale (1^{v}), the possession egence in respect of the first two hellers is the second degree (2^{v}), the egence in respect of the first three hellers is the third degree (3^{v}) and so on.

The numbers 1, 2, 3, etc. are ordinal numbers, not cardinal numbers. Thus, they do not show multiples of the egence in respect of one heller, as is usually taken for granted in their general use and also in their use by economic authors, because all we know about the egence 2^{v} is that it is greater than the egence 1^{v}, but not that it would be exactly two times greater than the egence 1^{v}.

52. Our own experience tells us that the disegence in respect of 2-, 3-, 10- or n-hour job is not 2-, 3-, 10- or n-times greater than the disegence in respect of a one-hour job, because this disegence varies depending on the length of the work that preceded it.

4 Heller (in Czech "haléř") is one hundredth of a crown. [Note of the translator]

If we want to compare the disegence in respect of a 2-, 3-, 10- or n-hour job with 2, 3, 10 or n disegences in respect of a one-hour job done on different days, we lack any means of determining whether the disegence in respect of a one-hour job done today is perfectly equal to the disegence in respect of a one-hour job done yesterday.

From this we can conclude that disegences also cannot be measured, but only determined by way of scaling. An ideal scale of welfare disegences can be established in a similar way to the scale of welfare egences.

53. Because egences and disegences are quantities of the same kind, only bearing an inverse sign, disegence scales can also be used indirectly to determine the size of positive egences in the same way as, for example, the power of a steam engine is measured by the resistance which it is able to overcome. This mode has the advantage of providing the possibility of recognizing changes in all of a person's egences.

54. While speaking about the commensurability of needs, we have had in mind so far only the needs of one given person. Now we should examine the question of whether the egences of different people are commensurable as well. Here, above all, we encounter the obstacle caused by the fact that person A cannot recognize the existence and intensity of person B's needs directly, but merely through particular attendant circumstances or effects, and such inferences are prone to many errors. But even if we were able to recognize the egences of needs of the different people to be compared, we would not be able to establish the relation between their respective sizes with certainty, because in this case we lack the tool for recognizing which of a person's egences is stronger, that is, the actual decision of will. Thus, the comparison of egences of different people is definitely impracticable.

55. This claim seems to be in contradiction with the experience that exchanges of goods take place every day among different people which seem to suppose the commensurability of the respective egences. However, this supposition is incorrect. If, for instance, person A has a horse and if his egence in respect of the horse is as great as his egence in respect of 40 quintals of wheat of a particular kind and quality, and if person B has wheat of this kind and quality and his egence in respect of 50 quintals of wheat is as great as for the specific horse owned by A, it is completely irrelevant for the transaction between these two persons what degrees their egences in respect

of the horse or in respect of 40 or 50 quintals of the wheat are. The barter exchange will take place just as if A's and B's egences were of the same degree and thus as if the relationship of A's egence in respect of the horse to B's egence in respect of the same horse were the same as the egence in respect of 40 quintals of wheat relative to the egence in respect of 50 quintals.

What has been said about the impracticability of commensurability of egences applies also to the impracticability of commensurability of disegences of different people.

56. We have considered only present needs so far. However, the necessity of comparing present use needs with future needs arises almost every day in practical economic life, and the latter often predominate over the former. But how is this possible, if there is no drive for satisfaction of future use needs in the present, and hence also no egences? Here we should recall that future needs in the sense of economic science are those use needs capable of arousing possession needs in the present. Such needs have a specific possession egence, which can be weighed against the egence of present use needs. Therefore, when speaking about the commensurability of present and future use needs, or of these needs with each other, what is meant is this weighing of the possession egences brought about by future use needs against the egences of present use needs, or of the possession egences of future use needs with each other.

7 On changes of intensity and egence of needs

57. Our everyday experience tells us that if we consume equally sized bites of the same dish immediately one after the other, our appetite diminishes with each bite until a moment is reached when we have no appetite for consuming any more bites. If we were forced to eat any more bites of the dish, we would start feeling a distaste for them. In other words, the intensity and thus also the egence of the welfare desire aimed at achieving an increase in welfare caused by the consumption of one bite is in the course of its manifestation smaller with each increase, until it finally reaches zero. If we still continue with the satisfaction of this welfare need, it becomes negative. We can observe a similar decrease in intensity and egence of a welfare desire aimed at achieving an increase in welfare caused by wearing clothes after putting on each ad-

ditional layer; or of welfare caused by our staying in a warm room as the temperature increases degree by degree.

58. Based on such experiences, a list of which can be extended endlessly, Gossen formulated his first law of diminishing utility saying the following: "If we continuously induce the same utility, its size decreases until finally a state of saturation is reached." In our terminology, this law would go as follows: "If we satisfy several phases of a divisible manifestation of some welfare desire one after the other, the egence in the course of this manifestation becomes smaller from one phase to the next, until it finally reaches zero." I show in §§ 316-320 of my book that such shrinking of the welfare egence can be observed only in cases of manifestations of welfare desires that belong to the category of self-regarding simple needs aroused by pain (§ 43, letter e) which do not undergo any increases in intensity during the course of the act of satisfaction; whereas in the case of needs leading to pleasure this law starts to hold true with the phase in which the intensity of the particular manifestation reached its culmination point.

A similar restriction applies to the law of saturation of needs formulated by Wieser, which refers to decrease of use egence.

59. Gossen also articulated a second law of diminishing utility, according to which the maximum egence of each additional manifestation of periodical welfare needs will be smaller than the maximum egence of previous manifestations. But if we examine a larger number of periodical needs, we can find no such regularity between their recurrence and the maximum egence of their individual manifestations that would deserve the name "law".

60. In the last chapter of the aforementioned book I deal with the relation between the size of possession and use egences regarding either single goods, or stocks of goods of the same kind and quality, that are suitable only for satisfaction of one divisible or indivisible manifestation of use need. In other words, with elementary laws of subjective economic value, about the relation of the size of a possession egence aroused by a future use need to the size of the actual egence of this need. I determine more precisely than has been done hitherto the reasons for so-called "discounting of the future", as well as the rate of its effectiveness, and I uncover a tiny grain of truth hidden in the so-called abstinence or waiting theory of capital interest.