On the Logic of the Moral Sciences

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Foreword

This treatise, written in December of 1970, is the second of three philosophical treatises which I decided to write when my research on the development of a concept of proof in general logic reached a stage where it could be interrupted. The first of these treatises, entitled "On the Antitraditional (Ultra-Intuitionistic) Program for the Foundations of Mathematics and the Natural Sciences," was written a few weeks earlier. It does not have any direct relation to generally recognized problems, and I mention it here only to note the place these problems occupy in the system of scientific studies I recommend. In this system, the primary role should be allotted to the struggle against the necessity of faith and the development, as far as possible, of universal and irreproachable methods of proof. Until it is completed, the basic focus of my research will be related to the foundations of mathematics. But in that very sphere I clarify a close connection with the principles of the logic of the moral sciences, principles which must always guide investigations of the deepest questions relating to the nature of rules and goals ('teli') and the understanding of truth and evidence. I intend to devote the third of the aforementioned treatises to purely philosophical questions.

In a scientific sense, this treatise does not pretend fully to clarify all the logical principles which are of interest in connection with its theme and which I discovered in the course of developing my antitraditional investigation of the foundations of mathematics. In particular. the semiotic principles used in my investigation have been omitted. The question of limits to the applicability of logic has also been completely set aside. In my basic research this question is connected with expressiveness in language which, in the case of processes, I identify with their discreteness. I mention this in the foreword in order to avoid reproaches of trying to implant [my ideas] too singlemindedly, without taking the limitations of rationalism into account. But in so mentioning the problems of the limitations of language and possibly, in connection with this, of logic also, I have no intention of advocating without proof any theses which assert this limitedness. Logic has no need of such theses in any case, and I at least attempt to prevent such theses from posing a threat. For this reason logic now needs to be expanded and deepened in every possible way. The foundations of the moral sciences ought to be grounded in a rationally-based logic so that one might always demand a total explanation of any doctrine suggested by these sciences and the motives for its acceptance.

In this treatise the important terms ‘coercion’ and ‘fraud,’ and perhaps several others as well, have been left without a definition or thorough explanation. I shall not try to remedy this omission in the present foreword, but in time I hope to return to this theme in another work.

Currently I am writing the second part of my work [3] in which I particularly use the concepts of permission, basis, and fundamentary regime herein explained.

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I shall discuss the logic of ethics and jurisprudence. Up to the present time, certainly, much has been alogical in these sciences. They developed mainly as an expression of historical and political tendencies and the standards of acting legislators. If one where to search for the logic of the moral sciences in their process of development, then one would enrich one branch of logic above all others—that of logical errors. However, logically, an alternate course of development of these sciences is conceivable wherein moral and juridical systems of rules or norms are established in strict correspondence with propositions of an impartially developed logic. Such a course is certainly not historical, if one speaks only of the history of the past and present, but its study might influence the history of the future, especially if thinking people reject the harmful habit of elevating the ruling lawlessness and alogism into law. Thus the study of logic and its connection with the moral sciences produces important preconditions for moral progress though it must be understood that the factual realization of progress demands not only abstract theorizing, but also ceaseless struggle for enlightenment, struggle with many dangerous human vices. (I place deceitfulness first among these because it serves as a screen for other vices.) Doubtless this struggle will go on for a very long time before significant, observable successes occur in the practical realm. But however the matter stands in relation to this struggle, the development and expansion of the logic of the moral sciences ought to be an absolutely necessary condition of the struggle.

In this brief essay I can cover only a few questions from the areas of logic being examined, and then only briefly. These branches of logic have not yet been widely developed, and in my opinion the time for writing an extensive work encompassing this entire area of logic has not yet arrived. I say this consciously disregarding the numerous articles and essays written on these themes — they have not yet achieved a Unified logical approach.

I examine the close connection of the logic of the moral sciences With problems in the foundations of mathematics as presented in my Works [1—3]. In these works I developed an analysis of the difficulties in the foundations of mathematics to the point where the theory of modality and other “prototheories,” i.e., theories preceding the elaboration of methods of logical proof, were included. The fundamental rôle of rules was demonstrated, and an original logic of rules evolved. Clearly, rules play a fundamental role in logic and mathematics as they do in ethics, jurisprudence, and also semiotics (including linguistics) and psychology as well. This leads to the connection between the aforementioned branches of logic and the foundations of mathematics, a connection deepened by the need to examine the most important principles of *preference, collation* (i.e., identification and discerning), and *acts of attention (i.e.,following* and *neglecting* connections) in the foundations of mathematics with such generality that the (analysis) is independent of the subject of

mathematics and extends to any science, including the moral sciences.

I shall begin the discussion of these questions with the division of all linguistic propositions into the following classes: *rules (i.e., permissions* and *demands,* including *proscriptions), goals* ('teli'), *desires, judgments(i.e.,* a statement A, for which the question, "Is A correct?" is possible), *requests* and *commands* (including *questions,* considered as requests for an answer), and *names of actions and events.* This classification does not pretend to be complete, but I do not foresee the need to discuss propositions not included in it.

Logic is the science of standards of correct reasoning, the study of avoiding errors. In all fields of human activity where the risk of error is recognized as intolerable, the rigorous use of proof is demanded. I call each occasion when a judgment is recognized as true without proof *faith.* Faith is always connected with the risk of error and this risk continues so long as "truth" remains accepted without an explanation which would constitute proof, without an answer to the question, "Why is this accepted?" In the area of acceptance of judgments, the *law of sufficient reason* consists in considering *only* proven results as true. By proof of a judgment I mean any honest method which makes the judgment incontestable. A theory of disputes, in which this understanding of incontestability is more precisely defined, is needed; by *honesty* I mean the absence of *coercion* and *fraud,* concepts which I am prepared to make explicit in the prototheories. In the area of acceptance of rules, the *law of sufficient reason* consists in the demand that the *understanding* of every rule be *grounded.* I will refrain from the needed elaboration of what has been said for now, only noting that the elaboration will be connected with the nature of rules or judgments similar to these, regardless of the areas to which they are related. For this reason it will proceed in a similar fashion in the foundations of mathematics and in the moral sciences.

The prime goal I see in the foundations of any science is the complete banishment of faith. Perhaps faith is necessary in various spheres of human activity, and in any case the right to have faith constitutes an inalienable part of freedom of thought, but there is no freedom where this right places a thinker under obligation. Everyone must have the unlimited right to ask "Why?", the question that destroys any faith. Therefore, if acceptance of a judgment is required, proof of that judgment must be shown. True, proof does not create a requirement that the judgment be accepted; according to the law of sufficient reason it creates only the right to accept. Generally speaking, the obligation to accept a truth, i.e., the results of a proof, is required only for the achievement of some accepted goals or the fulfillment of some desire. The right to doubt proven judgments is distinct from the right to criticize a proof, which in practice is more important. For the skeptic, a proof offers a basis for accepting the proven judgment, a basis which he may or may not use. But in all cases when adopted goals or desires make it important to accept a judgment, such a basis is taken to be satisfactory, and the acceptance of a judgment on the basis of proof, in any case, does not appear as faith.

In the history of human thought the need for faith was called forth by a weakness in the ability to reason and argue, a weakness that can be overcome only by expanding and deepening logic and widely disseminating the information acquired in this way. To this day the inevitability of faith remains a commonplace conviction among the majority of thinking people. So long as logic is limited to a few branches, as has been the case until now, this conviction will be reinforced by widely recognized arguments. The arguments insist upon the need for and place a very high value upon

faith, and even the word itself, "faith," acquires an expanded meaning. "Faith" is often understood as preferring to accept certain judgments rather than reject them regardless of any rational arguments, irrespective of the presence or absence of proofs, even holding to the preference with particular stubborness. Faith is demanded as a necessary condition for the continuation of joint activity among people, and it must be admitted that such demands have a practical use. But they limit freedom of doubt as well as freedom of criticism and freedom of thought in general. In itself faith does not diminish freedom of thought; it even seems one of the manifestations of this freedom and can have non-negative value. But demands and coercion to have faith limit this freedom in a most essential way, and this applies to faith in any understanding of that word. Thus any moral system, any legal system demanding even the smallest degree of faith limits freedom of thought, and he who accepts them is no longer free in his judgments about the validity of acceptance, and there is no rational basis for having confidence in his judgments. For this very reason the moral sciences must be developed without any recourse to faith. A moral system based on faith is admissible only for followers of that faith, but coercion into a faith is immoral because it limits freedom of thought. Of course, this argument is valid only for those who value this freedom, without which, certainly, no rational basis for trusting the achievements of thought and cherishing moral values exists.

For this very reason I attach fundamental importance to the search for the foundations of the moral sciences, foundations as fully independent of faith as possible. Perhaps, however, the complete banishment of faith may remain an unattained ideal. In that case I recommend the development of a special branch of logic which I call the *logic of confidence* and which I oppose to the "logic of proof." The logic of confidence claims to have full control over applications of faith (from here on I will use this word only to signify the acceptance of judgments without proof). If in the development of the foundations of a science (or any other field of activity) there comes a moment when faith, though not completely banished, remains only at the peripheries, where everyone tolerates it, then that science (or other field) is all the same sufficiently grounded. (Although there is a particular sort of people, "fundamentalists," who consider it their calling to continue criticizing and improving the foundations, and I too ask that their efforts be met with deep respect.)

Although the understanding of proof is connected with the understanding of incontestability and, by the same token, with the theory of disputes, I by no means intend to look upon proof as a procedure necessarily containing within itself the construction of a dispute. On the contrary, it is a method intended to avoid dispute. There is at least one method which everyone is forced to regard as proof—that is the application of a definition or, more generally, any (accepted) rule for the use of signs. For example, the definition, "a bitch is a female dog," strictly speaking, must be examined as a system of two rules: permission to call a female dog a "bitch" and the demand that the word "bitch" be used only in accordance with this permission. Using this permission, we derive that a female dog is called a "bitch," and then using the definition of the connective "is," in the same way consisting of permission to replace the word "call" by the word "is" and the demand that this word be used in accordance with this permission, we derive the theorem, "a female dog is a bitch." Using the aforementioned demand instead of these permissions the reverse theorem can be derived: "a bitch is a female dog." (I should note that a full proof of these theorems would look more complicated, and the second of them is bound up with profound subtleties in the theory of the use of the word "only.")

Of course, this method of proof can be applied to any definition, regardless of

the essential meaning of the concepts being defined. It makes the judgments being proven incontestable if only because, according to the rules of honest dispute, each side must follow the accepted rules (which, by the way, may appear more complicated than the definitions being examined) regulating the use of signs. The art of logic must consist in building any argument according to the concept of some procedure governed by the application of this method. Of course, in complicated cases the argument is not exhausted by these methods, but other methods should be used only in order to crown the argument by the application of accepted rules of sign usage. Proof of the presence of a table lamp in a room might include, as the most obvious method, pointing out the lamp to the addressee of the argument. But in a logical analysis the argument would not be settled by this method. Not the presence of the lamp, but rather a *judgment* about that presence is proven, and therefore the argument must include an application of the rules of sign usage entering into this judgment: "there is," "a lamp," "in the room," etc. The proof is completed only when all these necessary rules have been applied in the proper way.

I do not wish to insist without proof that the rules of sign usage are the only ones to play this role in proofs, but the necessity of applying any other such rule must be proven in an honest debate (in which case the concept of honesty must make provision for the right of each participant in the debate to carry the argument through to the end and forbid any "obstruction" as impeding the implementation of this rule). But at the present stage of investigation I do not foresee the need for drawing any rules other than those of sign usage into this role. For example, it may be found necessary to clearly specify permission to rely on memory, but I intend to consider such permission one of the rules of sign usage.

In the course of the arguments the following steps are performed: collation, acts of attention (see above), indications, perceptions, and acceptances of propositions. In very deep examinations of arguments, to these steps must be added acts of preference (or choice), acts of reference to memory, and, when linking the concepts of proof with the theory of disputes, also acts of reference to another person. Denials of and abstentions from these sorts of acts, as well as from the denials themselves, must also be allowed. Proofs are effected in a *theoretical activity.* In the important *theory of reasonings* having to do with criteria of "correctness" of judgments (also consisting of the performance of the aforementioned types of acts), rules are established characterizing one or another theoretical activity. In the light of these criteria (which I will investigate in more detail in the second part [3]), only proven judgments will be considered correct. (As already mentioned, perceptions may also be a part of judgments, but I will not pause for a more detailed account of this here.)

In respect to syntax, the aforementioned logic of confidence has to do with the transitions from the statements "A says B" and "A is correct" (or "what A says deserves confidence,") to statement B. In this case A is called the *source* or *bearer* of confidence. But the most essential part of this logic consists of the principles on which the choice of a source of confidence is based. In particular, authorities, witnesses or experts, books, material evidence, branches of science, mental faculties (i.e., memory), etc., may serve in this capacity. Each source (bearer) of confidence has his *sphere of competence,* and confidence, always proceeding from some person, must be based on a particular *act of confidence* which can be rejected. The logic of proofs, as well as proofs of the correctness of assertions from a certain source which are related to a certain area must be considered the most perfect sources of confidence. In all cases rejection of any act of confidence is permitted as long as the rules of the theoretical activity do not forbid such rejection. The rejection of all testimonies from

the source of confidence (i.e., of all propositions B asserted by the source) and of all other propositions accepted through the agency of these testimonies must follow as a consequence of this rejection. However, a restriction of the area of competence may occur in place of a rejection of an act of confidence. This may be thought of as a rejection of an act of confidence accompanied by a new act of confidence toward the same source but with a restricted area of competence.

The following may serve as *grounds for the rejection of an act of confidence:* a) Errors on the part of the source of confidence not considered possible at the time of the act; b) Deterioration of conditions for verifying the testimony of the source compared to what is expected during the act of confidence; c) Behavior on the part of the source of confidence which would promote such deterioration (in particular, violations of the principle of publicity *(glasnost)* by the courts, etc.); d) A conscious lie authorized by the source of confidence in testimonies or sometimes even in judgments not related to his sphere of competence; e) Well-founded speculations about the deterioration of the source of confidence's capabilities or honesty; f) Discovery of a better source of confidence; g) Increase in the demand for truthfulness, precision or authenticity in the testimony of the source of confidence; h) Resemblance to another source which has been denied confidence. This list of grounds is not exhaustive.

The search for such grounds is called *criticism of confidence* and evolves in accordance with the methodology of investigation in a given activity. The methodology may demand various specifications, for example, indication of occasions when a conscious lie outside the sphere of competence is considered grounds for rejecting an act of confidence (applicable to point e), etc.). In the case of point c), (and also in the case of a decline in honesty) the source of confidence becomes "suspect" and, in the case of d), a "liar," which affects an "evaluation" of it, that is, the preference of other sources to it over sources resembling it.

In any case the persuasiveness of the testimony of a source of confidence cannot surpass the persuasiveness it possesses for the source itself—this means particularly that the testimony must be interpreted with all reservations and doubts that the source has or ought to have. On the other hand, if the falsehood of the source of confidence reveals a system which allows one to apply a way of correcting the testimony, an act of confidence to a new source is possible rising from the former act by applying these corrections (as one does with a clock, for example, when one knows how many minutes slow it is, etc.). In the case of point a), revelation of the cause of error may be considered grounds for a continuation of confidence in those cases where this cause cannot operate (representing only a slight limitation of the sphere of competence), but it may also demand the elimination of this and/or similar causes. The evaluation of the source of confidence can also depend on the range of such causes. Knowledge that such causes can operate only rarely should entail an improvement in the evaluation, and this argument can be applied to the selection of a source of confidence.

In general, grounds for an act of confidence must be connected to the competence of the source. In some cases a "tautological connection" may successfully be established—for example, our sensory organs are the best sources of confidence for evidence about actual reality in as much as actual reality is considered the contents of their evidence. In many cases the methodology of an investigation allows one to trust one source more than another similar one which has sufficient reliability but is inaccessible. The absence of substantial grounds for differentiation in their evaluations must serve as a criterion of similarity in this case.

‘Trial acts of confidence,’ made without any grounds, are possible in order to see what transpires. The *heuristic principle of confidence* plays a most significant role in human cognition: if, notwithstanding the application of all available methods of criticism of confidence, there are no grounds for denying confidence to a source, an act of confidence is made toward it. The evaluation of this act must depend on the completeness of the aforementioned methods and improves in proportion to their reenforcement. Applications of induction through simple enumeration and of the phenomenological principle in the natural sciences (consisting of a theory’s being wholly or partly accepted when all its assertions have been confirmed by observation) are based on this principle. Acts of confidence toward sources which have undergone a trial act and have not been deceitful are also based on this principle.

In the moral sciences the theory of modalities, especially deontic and optative modalities, must play a no less central role than it plays in the foundations of mathematics. I shall describe this theory only briefly here; its contents have been presented in more detail in my work (1)-(3).

Modalities are divided into three categories (possible, actual, and necessary) and five groups: deontic (‘possible’ means ‘permitted’ or ‘allowed’; ‘necessary’ means ‘required’), optative, that is, connected with goals or desires (in relation to the achievement or realization of which ‘possibility’, ‘necessity’, etc. are discussed), and three alethic groups: organical (connected with means, including ways — ‘possibility’ means knowing how or having the ability to perform an act under consideration, ‘necessity’ means that one is compelled by an accepted manner of acting or the character of the process under consideration), epistemic (connected with the cognitive process — the possibility of an event means the organic *(organicheskaya)* possibility of continuing that process, assuming that the event will occur; the necessity of an event means the organic necessity of accepting the assumption that it will occur), and ontological (connected with the reality being examined; if the latter is a process defined by some means, it is simply the organic modalities connected with these means). There are further distinctions among these groups, particularly those related to single and double negations. [The “necessity” splits in two modalities: “compulsoriness” (or “obligatoriness”) and the “necessity”, i.e. indispensability or “impossibility” of negation (or of Opposed event). Here, for simplicity, this distinction is smothered and mostly Suppressed.] The zero-modality “actually” exists for all groups; those assumptions and judgments expressing perceptions and opinions adopted in the course of or at the basis of an examination are accepted with epistemic actuality.

Modalities are applied to judgments or propositions designating acts (actions or inactions) or events. More precisely, types of these propositions are indicated in a natural way for each group once and for all (deontic and organic are applied to acts, epistemic to judgments, etc.). These propositions aside, modalities are always related to circumstances (what is possible in some circumstances may not be possible in others, and analogously for all categories and groups of modalities). In addition, the same modalities apply to circumstances. Judgments are the result of the applications of modalities to propositions under certain circumstances, except in the case of the deontic modalities “it is permitted” and “it is required” when such results are rules. Demands to refrain from an act are called *prohibitions* or *bans* of the act.

The circumstances must be indicated in some way or other. The common way of indicating circumstances consists of describing them by means of some set or class of judgments — in this case I call the circumstances a *situation.* To be exact, a

situation is the description of the circumstances by judgments and may be more or less precise, but when a sufficiently precise description is present, the situation is identified with the circumstances. In abstract reasonings and in the formulation of rules, circumstances are simply presented as situations and therefore are identified with them.

Situations on which modal propositions have bearing (those in which modalities have bearing on other propositions, but not on the circumstances) can depend on parameters, and be therefore, indeterminate and can themselves serve as parameters for situations (representing classes of meanings for these indeterminate situations). Situations can be designated in a list by letters and indices, but such indices can degenerate in accordance with general rules of the usage of indices, particularly when their meanings are fixed in a context or do not play a rôle.

The following *principle of modal fulfillment pmf* has a variation for each group of modalities: If situation S is possible, and A is Possible in S, then situation S + {A} is possible, resulting in the addition of judgment A to S.

More precisely, if in pmf one discusses any possibilities other than epistemic and ontological ones, then A is the name of an act or event. and, in the proposition A is possible in S, the given A must stand in the future tense or in the infinitive. But in S + {A}, A must stand in the past indicative. If the possibility relates to performing act A by an agent, then in the first case A is used in the active voice, but in the second, in the passive. In the case of both epistemic and ontological possibility, A can stand in the present indicative, but in the first case it can stand in the future tense and in the second in the past. In the statement "A is possible in S" as soon as A is in the future tense, according to *pmf* the situation S + {A} is considered possible in (the same) future (which contains some specification of *pmf* for the temporal status of a situation). In any case, in *pmf* all three possibilities must belong to one and the same group.

Most significant in *pmf* is the transformation of A from possible in S to actual in S + {A}. This transformation is accomplished at the price of the situation's being considered only possible, even if S were actual. This constitutes the fulfillment of the modality for A.

The *pmf* is the principle by means of which applications or realizations of possibilities are formalized. Unlike the rules of deductions, S + {A} is considered only possible. This is the rule of the addition of a new judgment (or assumption) to the situation being considered, realized within the bounds of possible situations.

Situations are called *actual* if all their elements are accepted on the basis of perception; such actuality is called *real. Speculative* actualities, some elements of which may be accepted as hypotheses or consequences of other accepted propositions according to the rules of logic adopted, are also examined. (In many instances these rules, as well as the acceptance of some hypotheses, are assumed to be inherent in the subject under consideration and therefore need not be specially stipulated. In such cases actuality is considered real despite the usage of these rules and hypotheses.)

Actual situations are considered alethically possible (for any alethic group). The grounding of *pmf* can be that only those situations which can be confirmed as possible on the basis of *pmf* are recognized as subsequently possible. Such a grounding is tautological and therefore incontestable. To apply it to any group, it suffices to agree beforehand on which situations will be considered actual and which judgments of the form "A is possible in S" (representing "the possibility of S+{A} in relation to S" will be accepted in the theory or activity under review.

I call a system of rules a *character* or *tactic.* The first of these terms is chosen

in accordance with the fact that the character of any subject is considered known as soon as the rules governing how it may and must act in every situation are known. Under this 'act' may be included everything that can be expressed by a statement with the verb in the infinitive, in particular, to think about or say anything whatever, to smile, to forget, or to select a new character. Thus, the concept of character embraces any case of a regular change of character, and connected with this is a certain natural hierarchy of characters. But the very same system of rules defines the character not only of an agent, but also of his activity; I call the latter the 'tactic' of the agent. Generally only those situations and actions which are not completely arbitrary and which one may meet during an activity or process under consideration and may need to discuss in this connection, arouse interest and reveal character. Hence two important classes arise—the *class of situations* and the *class of acts—in* relation to every character or tactic examined. If a character (or tactic) is expressed in language, I call it a *method.* Aside from the two classes mentioned above, some basis to aid in reaching this expression always is crucial for a method. When the distinctions among the concepts of character, tactic, and method do not play a role, I use the word *way* in the same sense.

In a situation 5, to *follow* the rule permitting or requiring one to perform act A *in* S means to perform A in S. Only a requirement can be *violated,* and *breaking* the requirement A in S consists of performing the *opposite* act in S (i.e., not-A, or B, WA is not-B). To *follow* a way *in* a situation S means to follow every requirement of this way in S and, in the absence of requirements related to 5, to follow at least one permission related to S. To *follow* a way in all situations of some *class m*eans to follow it in any situation of that class. Generally one speaks about following a way beginning with some given situation (or several given situations) and continuing in all situations arising as a result of the performance of the steps of this application. I call the following of a method a *discrete process* or discrete activity. (If one speaks of process, then in the previous discussions "acts" must be replaced by "events" which will be considered "events of that process.") I say that the method *describes* that process. (In place of method one may sometimes speak of a tactic in the same sense, describing a process.)

Every discrete process is generally performed against a background of other processes *external* to or *deeper* than the process itself The following may serve as examples of external processes related to ordinary, not very deep, theoretical activity: the collation of judgments or parts thereof, or acts of attention to such judgments or, let us say, acts of pronouncing separate words. Such external processes appear as activities in their turn. Events of external processes not belonging to a given process are performed *automatically* or "by themselves." During the study of a given process external processes are attended to only gradually, as they are needed. Generally some external processes are considered well known, which gives the possibility of conducting investigations related to these processes much the same as one would with the "initial" ones.

In the moral sciences rules are often examined in more detail than is usual in the foundations of mathematics (if one disregards the theory of disputes). To wit, in the moral sciences an *addressee* is indicated, i.e., a person (or persons) who must follow the rules, as well as an *addressor,* i.e., a person by whose will the rules are accepted. Only the addressees of rules must follow them, and only they may violate them. But this is not a unique characteristic of the moral sciences, and if these persons are not mentioned in logical and mathematical theories, it is only because they are identified with the reader or other addressees of these theories.

Ethical systems defining rules of conduct or jurisprudence may serve as examples of methods on the one hand; on the other hand games, fully constituted grammars, mathematical algorithms are also examples.

Deontic judgments, that is, judgments about a rule's being accepted, are associated with rules. Thus, a notice reading "No smoking here is understood not as a rule, but as a judgment about the acceptance of a rule (in which the word "here" designates the situation). Not being judgments, rules cannot be true or false, cannot be an object of faith or follow one from another according to the rules of logic. This is possible for deontic judgments, but logic does not have general rules by which deontic judgments could follow one from another. In the general case, at least, one can examine utterly preposterous systems of rules.

In external form, deontic judgments and rules can be expressed by the same words in a natural language. In such cases the character of the proposition has to be recognized from its context. To this end, when necessary, special explanations can of course be introduced into the text. In specialized languages the appropriate signs can be systematically used instead.

In natural language modalities are often used together, with one proposition being understood in various senses corresponding to the various groups of a single category of modalities. This often leads to double meanings which are impermissible when absolute precision is demanded, but such precision may also be achieved with the help of philological explanations and stipulations.

In formulating the rules of a method, one may permit oneself simultaneously to permit and prohibit the same act A for the same situation S. This does not prevent our applying such a method, but, according to the description of this application, permission for A will turn out to be inapplicable in S, in which case one must follow the prohibition (for it then represents a demand). It must be noted that in jurisprudence one runs across such *clashes* between permissions and prohibitions fairly often, in fact it would be difficult to avoid them, but on the strength of the previous discussion this need not be so. But one must distinguish such cases of permissions from the rest. For this reason I will call the *allowance* or *authorization* of A in S (from the method side) the presence (in that method) of permission for A in S in the absence of the prohibition of A in S. (I will consider this concept applicable to other ways *(sposob)* as well.)

A *deontic judgment* often represents a permission. Generally in examining deontic modalities permission itself must be considered as 'deontic possibility' or 'authorization' or 'legality', and *pmf* must be applied to it. In this case only 'authorized', not simply 'permitted', situations are considered 'legal'. One can, however, consider even simple permissions as deontic possibility, but in such a case, when permissions clash with prohibitions, deontic possibility may turn out to be deontic impossibility. This will represent a dangerous confusion, but not a real contradiction or absurdity since the phenomenon is well explained by the facts of clashes discussed above. This confusion may be avoided by distinguishing the impossibility of A from the obligatorinness of not-A in the sphere of deontic modalities; equivalent identifications for any group of modalities demand a grounding which operates within broad limits. A certain awkwardness in such distinctions obstructs the freedom of allowing clashes between permissions and prohibitions, but this argument falls away as soon as deontic possibility is considered as authorization. It is certainly not always important to be concerned about this subtlety, and 'authorizations' are often loosely spoken of as 'permissions'.

A method (or any other way) may be incomplete' in two fundamentally

different respects. On the one hand, for a single situation S it may contain several fundamentally different allowances, for acts A, B..., without making any choice among them. I call such situations S *Buridanian.* A difficulty arises in applying a method in a Buridanian situation, especially if more than one of these acts is feasible in the situation. One way of overcoming this difficulty is to perform all the acts, but this is not always feasible: they may obstruct each other in S. Another way is by examining every variant, but this may not reveal a choice among them. The process of developing a method in this case splits into several equally justified processes (each of which is described by the method). No single one of the processes can be counted as originally feasible in S until a way of choosing a variant has been shown. Finally, a way of preferring one of these acts may be shown (it may be contained in the description of an external process), and then the Buridanian situation has been overcome.

Ways of preference (or 'tastes') play an important role all in connection with overcoming Buridanian situations. In addition, they play a most important rôle in the selection of goals or means for reaching them.

The absence of any rule for A in S is another case of an incomplete method. In such cases completion usually occurs with the help of one of two preferences: either permission is preferred to prohibition, which constitutes the *principle of liberalism,* or, on the contrary, prohibition is preferred to permission, which constitutes the *principle of despotism.* It is simplest to apply one of these principles consistently in connection with the rules discussed below. This leads to the application of one of two *regimes:* everything not prohibited by the method is permitted by the regime *('liberal regime'),* or everything not permitted by the method is prohibited by the regime *('despotic regime').* In the first case the distinction between permissions and authorizations does not play any role (that is, permission automatically leads to authorization by the regime, but in the second case what is not permitted must be specified since what is permitted, but not authorized has already been prohibited by the method).

The often encountered confusion of the concepts 'not permitted' and 'forbidden', or 'not forbidden' and 'permitted', is based on the assumption that every act is either permitted or forbidden — and then only one of the two. But only 'complete' methods, almost never encountered (in complex cases), satisfy this assumption. For these methods, actually, the two opposite principles or regimes would be of equal value and would not lead to a noticeable broadening of the system of rules. For incomplete methods, even replenishment by the imposition of one of these regimes does not necessarily lead to completion. (Thus, assume that as a result of the act of imposing a despotic regime over what is not forbidden, a foundation is given only for the negation of the fact that something is not permitted. From this one cannot conclude that the thing is permitted without eliminating the double negation.)

Generally speaking, in actuality three sorts of situations can be distinguished: *creative* — those in which means for attaining goals are sought; *control*— those in which proposed means are verified; and exe*cutive*— those in which the selected means are applied. In the course of an activity they may alternate with each other, forming *stages,* each one consisting only of situations of the appropriate sort. Like prohibitions, permissions are inherent in each of these stages. But in the creative stage one must consistently be guided by principles of liberalism since the opposite preference would limit freedom of inquiry (needlessly, since necessary limitations must be provided for by the method, not by the regime). In the executive stage one must be guided consistently by the principle of despotism (under the threat of not

attaining the goal by the means adopted for this). Every verification, in as much as it represents the application of previously adopted means of verification, belongs to the executive stage of verifying activity, and therefore in the control stages one must follow the principle of despotism consistently. I count these rules to the number of most significant rules for every methodology.

Generally one considers only those methods in which everything that is demanded is at the same time permitted. In a method that can be effectively applied, what is demanded cannot be forbidden.

The aforementioned principles and regimes are not the only ones imaginable. But there is one reason that makes forming systems of rules in terms of permissions and prohibitions, only rarely including other demands, more convenient. The fact is that these directives generally relate to actions, not abstentions from actions. Various feasible actions may be incompatible, but all inactions, as a rule, can be considered compatible. As soon as a method demands several actions for situation S, for the fulfillment of its development in S one must be concerned about the compatibility of these actions. But these concerns fall away as soon as all these demands, except, perhaps, one, turn out to be prohibited actions.

For any activity and any of its situations S, authorization of A in S, "contained" in the rules of the activity, is the *basis* for performing acts A in S. More precisely, this is *the primary basis,* for, in addition, everything upon which the application of the primary bases is based is also called the *basis* (in the figurative sense) — rules and circumstances of external processes used in the application as well as circumstances characterizing the given situation S. I call the demand that every phase of an activity be performed only after the basis for the phase has been demonstrated the *fundamentary regime* of the activity. (The demonstration itself may be part of the external activity.) I call an activity which satisfies the fundamentary regime *fundamentary.* Activities in the construction of rigorously grounded theories are particularly fundamentary. Aiming for maximal freedom and the elimination of all unnecessarily limiting rules, one must subordinate activity in the establishment of morality (i.e., systems of rules of conduct) to the fundamentary regime so that only grounded limitations enter into morality. The same is true in relation to legislative activity.

It must be noted that in a fundamentary activity a step not permitted by the rules of the activity cannot be fulfilled (since it is not authorized and therefore has no basis). Therefore the restrictive force of a fundamentary regime does not yield to the force of the despotic regime. In striving for freedom, therefore, it is impossible to impose a fundamentary regime on an activity when the freedom of that activity is under discussion although one must impose a fundamentary regime on the activity of establishing a morality for that activity.

In the fields of sociology and politics, the term 'despotism' is generally used in a sense which does not coincide with the one I attribute to this term in logic, although the two are connected. In these fields despotism means the presence of some 'despotic will' which subjugates the sphere of life being examined and prohibits everything that is not permitted and everything that it has the power to prohibit. This will strives to make the realization of rights depend on the agreement of some one or other of the persons it has placed in power. In governing activities, the will of course prefers prohibitions to permissions in all cases for which it has not established authorizations, and in this way it follows the principle of despotism.

Under a despotic regime authorized acts can be performed without worry about prior indication of the authorization, but under a fudamentary regime prior indication

is required (although actions may be performed automatically). In this respect a fundamentary regime is more rigorous than a despotic one.

According to the *restrictive clause* contained in definitions, a defined term may be used only in accordance with its definition. For example, the word 'bitch' may designate only a female dog. Imposition of a despotic or fundamentary regime serves as a means of interpreting the restrictions expressed by the word "only." There are two different meanings of the word "only" which I designate as despotic and fundamentary, respectively. Usage of the despotic meaning of "only" is connected with the elimination of the double negation. For example, if an object is designated by the word "bitch", then the lawfulness of this designation cannot be grounded. One can only assert that if this designation for the given object has not been authorized, then it has been either permitted and subsequently prohibited or not permitted and, consequently, prohibited by the despotic regime. But since such a designation could not have been implemented (in developing the definition under consideration) and since, by assumption, it has been implemented, then consequently the designation is not-not-authorized. This argument uses the law of the excluded middle, but if one wishes to derive authorization for the designation in question, the double negation must also be eliminated. Otherwise, when 'only' in the restrictive clause of the definition is understood in the despotic sense, one can merely assert that a bitch is not-not a female dog.

If 'only' is used in the fundamentary sense, then, as soon as the word 'bitch' is used for designating an object, there must be a basis for this (connected with the definition of that word). Thus, the object must be a female dog. And so a bitch is a female dog if 'only' in the the restrictive clause of the definition is understood in the fundamentary sense. Without going into further subtleties of the theory of definitions, I observe that activity in the use of terms introduced by definitions must be fundamentary. Otherwise there will be no basis for using an assertion of the type, "A bitch is a female dog."

The juridical principle *nullum crimen sine loge ("There* is no crime without a law") corresponds to the principle of liberalism. In criminal law this principle is applied, but it only signifies permission for what has not been prohibited in that field of law. Without reservations or supplementary agreements, it would be risky to think that each person has the right to perform any act not forbidden. The problem is that the expression 'has the right' is used in jurisprudence in another connection as well. In civil law, for example, the principle that every right can be an object of legal protection must be defended. But it would be awkward to make some acts which are not prohibited objects of legal protection. The law does not prohibit anyone from becoming the victim of a crime and at the same time the law cannot require a court to grant the suit of anyone who insists on his right to become a victim.

Perhaps this particular collision is canceled by the distinction between active and passive voices, but there are other similar ones. The law does not prohibit resorting to necessary defense, but this right is not protected by the court in the sense that someone who has been prevented from making use of this right could demand from the court a reconstruction of the circumstances of the crime so that the right could be exercised. The rights allowing legal protection should be reviewed so that courts would have the means to offer this protection. To this end rights are brought into some system of "civil rights," but the right to every deed not prohibited is not included in the system. (At the same time there is no basis for extending legal protection only to rights stipulated by the system of civil law.)

It therefore follows that the presence of various legislative systems in states is called for by logical, not only social or historical, considerations. In addition, legislation must develop somehow harmoniously in deeper ways. Some of these represent morality, and thus moral systems of differing depth naturally arise.

I adopt the following principles in the theory of modalities:

If process E is described by method M, the rules of which contain the requirement that act A be performed in situation S, then for the continuation of E in S it is organically necessary that A be performed in S. (Principle of deontic-organic necessity, *pd-on).*

The same principle replacing organic necessity with epistemic necessity *(pd-en).*

If in situation S of process E event C has occurred, then in that situation each event prior to C must have occurred. (Principle of ordinal necessity)

If in a possible situation S, A and B... and K are possible, then A is possible in S (and B is possible in S,..., and K is possible in S).

Aa nd B...and K are obligatory in a possible situation S if and only if, A is obligatory in S, B is obligatory in S,. . ., K is obligatory in S. (Distributive principle)

In a possible situation S no violation of *pd-on* is possible. (Principle of negative evidence) [The principles pd.-on. and pd.-en. have the versions "pd.-oc.," "pd.-ec." in which the necessity is replaced by compulsoriness (of the same group). These versions are stronger than pd.-on. and pd.-en. The principle of negative evidence for pd.-oc. and pd.-ec. is much less obvious than for pd.-on. and pd.-en.]

For alethic modalities the following principles are adopted:

P1. For a possible situation S, if A is obligatory in S, then A takes place in S (or will take place in a later situation).

P2. For a possible situation S, if A takes place in S (or happens in S), then A is possible in S.

I will not dwell here on some more precise clarifications from the point of view of the logic of time which the formulations of these principles require.

For deontic modalities P1 and P2 can be violated, but this will violate the rules of the activity. P1 corresponds to the condition that in an activity which is going on any of its requirements is fulfilled. As soon as an activity is performed, this follows *from pd-en,* but this assertion is based on that which is necessary being considered obligatory (and on Pt). If an agent is *loyal* to the rules of an activity, i.e., does only what is authorized ("only" in the fundamentary sense), then the condition corresponding to P2 is also fulfilled. For goal-oriented modalities the conditions corresponding to P1 and P2 can be considered two different characteristics of the "purposiveness" of the activity.

Theories of optative modalities are very important for the moral sciences if only because rules and ways are usually adopted for goals. They themselves serve as means toward these goals much as do the acts performed according to the rules or in harmony with the ways and the instruments or materials which aid in performing them.

The characteristic *evolution of goals* is that as soon as means M is involved in the attainment of goal T, goal T is replaced by a new goal TM: to attain T by means of M. So one desirous of acquiring thing E selects for this goal T means M, consisting of acquiring the needed sum of money. Often one falls into the *error of displacement of goals* consisting of calling M "necessary" or "obligatory" for T although. generally speaking, M is obligatory only for TM (on the strength of the definition of TM). A purchase, using money, for example, is clearly not a necessary condition for acquiring

something. But of course the rules of external methods (in this example, rules of morality or legislation) may make M obligatory for T. In examining goal TM I will call M the *involving* means (to T). It is understood that for goal TM it may be necessary to involve an additional means M_1 and thus replace goal TM with goal TMM_1. This constitutes the evolution of goals.

A similar evolution is possible for desires. I see the distinction between goals and desires as being that for goals the agent seeks such means as he applies or desires to have the possibility of applying.

Generally speaking, a goal is not assumed to be attainable, and when this assumption is not made I call it an 'ideal'. This term generally applies only to the final goal of an activity which has subordinate goals set in separate stages or steps in the order of evolution described. Generally, applicability, i.e., the organic possibility of its application, is demanded of every means M in every situation S in which the means is applied for accepted goals. In particular, morality is commonly applied for the attainment of some goals, and therefore all its demands must be fulfillable. The same is true of legislation.

It is true that sometimes such means which have only the epistemic possibility of being applied are considered satisfactory. The choice of these means is connected with the risk that they will turn out to be inapplicable, and the less certain the aforementioned possibility, the greater the risk. When this certainty has been evaluated, all other conditions being equal, commonly the means associated with the least risk of this sort are preferred.

I call a situation S *hopeless* or a *dead-end* for goal T if it is impossible to attain T or (when T is considered an ideal) approach T in that situation. (The concept of 'approach' is defined more clearly in terms of preferences for some goals over others.)

I call the tactic of selecting a tactic for the attainment of a goal a *strategy.* I call a strategy *unswerving* if it allows a tactic, once selected, to be changed only in the following three cases: a) in the presence of the authorization of that change, for the current situation in which the tactic is being applied, i.e., in accordance with *pmf* b) when the goal has already been attained; c) in a dead-end situation. In a hopeless situation changing the goal is also permitted, but only by rejecting the last means involved.

To *explain* some process (happening) means to indicate an unswerving strategy for discovering the method describing it. To *understand* a process means to find an explanation for it.

If only *honest* means are allowed for attaining a goal, then a morality, defining the concept of 'honesty' as steadfastly demanding it, is involved in this goal, and an application of dishonest means would immediately create a dead-end. Therefore such application could not be considered a suitable means for attaining the accepted goal. In the same way, if some judgment must be proved, the acceptance of any judgment on faith or the ungrounded acceptance of any rule creates a dead-end.

In the theory of goals I adopt the following principles:

To reach an unattained goal, sufficient means must be applied. (Inversion principle, *ip)*

To reach an unattained goal, every necessary means must be applied. (Supplement to *ip)*

Three principles of sufficiency:

1. To reach an unattained goal, it is sufficient to apply sufficient means for this.

2. Every event is sufficient for the occurrence of any of its consequences (and in this case the obligatory result of an event is called its 'consequence', but which

results are to be considered obligatory must he specified for every event in each theory. For example, the consequences of writing a word are that the word is written as well as that the text completed by it).

3. Means M is sufficient for the attainability of goal T if there is an applicable way to reach T with the help of M (i.e., to reach TM).

These principles expand to cover all possible situations. (I do not adopt any principles for impossible situations if only because it is desirable to preserve the possibility of discussing the violation of any principle, but a situation can be impossible precisely because, according to its conditions, logical principles are violated.) In a more thorough examination the principles set forth here will need some clarification, but for the present they will assume a tautological grounding. For example, the i.p. includes in itself an agreement that realization of a goal without the application of sufficient means — let us say, in the case of a gift — is not considered the "attainment" of this goal.

With some reservations the following principles of transitiveness tan be adopted: If B is necessary (sufficient) for T, and A is necessary (sufficient) for B, then A is necessary (sufficient) for T. (The reservations are not only related to the consideration of the situation. Clearly the sufficiency of A for B is not the same as the sufficiency of A for T, however simple it may be, having attained B, to reach T. But very often 'sufficiency for T' is understood to mean sufficiency for the attainability of T, and then the transitiveness of sufficiency takes place under very broad assumptions.)

Generally speaking, the occurrence of any event may be regarded as a goal. Goals are usually adopted on the basis of desires held or as a means for the attainment or the attainability of previously adopted goals. In this case the desires are selected according to the preferred tactic (taste) of the agent.

Roughly speaking, I divide *causes* of events (called *actions* or *effects* of these causes) into *eventual* and *necessitating.* For any situation 8, A is called the *eventual (necessitating) cause* of B if, as soon as A has occurred, and only in that case, can (must) B occur in S + {A}. The elements of a situation S are called the *conditions* under which this cause *acts.* In Russian the presence of a causal connection is expressed by the words 'by this' *(potomu chto)* or 'by that' *(poetomu),* etc., so that these modal characteristics most often remain unexpressed.

A *causal connection* is defined in an analogous way between phenomena distinct from individual events (processes or other enduring factors), between a phenomenon and an event, or between an event and a phenomenon. The principle, "The cause precedes its action," depends on the way precedence is determined and is often violated in cases where the cause is a prolonged phenomenon. (For example, although spring warmth is a cause of the growth of foliage, both phenomena develop simultaneously.)

I call the cause of an event's non-occurrence an *obstacle* (for the event). An obstacle is called *eventual (necessitating)* according to the modal characteristic of its cause. The more certain the possibility of the effect of this cause, the more serious the eventual obstacle (but, of course, an estimate of this certainty cannot be made in all cases).

The theory of modalities herein described bears little resemblance to contemporary logical-mathematical theories, and this is deliberately so, for it claims to lie at the base of these theories. At the same time it must form the basis of the logic of the moral sciences. Spinoza tried to attain rigorousness in ethics by means of axiomatic construction. I, on the contrary, try to attain rigor in the foundations of

mathematics by means of a theory akin to the logical foundation of ethics. There are three very significant considerations by which I reject the axiomatic approach to this foundation: a) Judgments, or rules governing the derivation of some judgments from others, have been postulated; here one speaks of rules of an entirely different sort, and they are precisely the main subject under consideration; b) The dependence of the traditional axiomatic method on arithmetical assumptions about natural numbers, which have no foundation for being connected with the moral sciences; c) The contestability of any judgments selected as postulates for the theory. Instead of the axiomatic approach, I have adopted a definitional one, making acceptable judgments in accord with those which can be accepted on the strength of accepted definitions (or other rules of sign usage). This is achieved by means of the theoretical-modal principles considered above but they themselves are grounded in the rules of sign usage (as I have shown above for *pmf* and *ip)*.

To be sure, the grounding of the theory of modalities under consideration has never been completed in detail. Moreover, this would not be an easy task, although it is considerably simplified when grounding the use of modalities in a finished logically well-thought-out text is all that is required. In this case there is only a limited goal, and there is hope of its attainment, although, until it has been attained, one must take into consideration the need for some modal specifications being included in the text or in its interpretation. This is how the matter now stands with the foundational studies of the Zermelo-Fraenkel system, where only the final text of the proof of the consistency of the system is subject to investigation (3). There is no such text in the moral sciences, but with any acceptably grounded fragment one could attempt to do the same. In this it must be necessary to clarify the fragment and change the rules set forth in it, but, unlike the foundations of mathematics, where doing so might violate a projected proof, in the moral sciences clarifying a fragment would certainly mean perfecting it.

There is, however, one serious difficulty in this way of grounding— the frequent dependence of accepted propositions on the elimination of the double negation. The identification of the necessity of A with the obligatoriness of A can be grounded only with the aid of this elimination. Without it, only not-not-A can be derived from the necessity of A. (For this reason I was not able to use ‘necessary’ instead of ‘obligatory’ in P1.) The non-impossibility of A can be examined as a form of the possibility of A and ground *pmf* for this possibility, but there is no basis for relating this possibility to the same group of modalities from which it was derived by means of the double negation. Although a proven judgment is by definition incontestable, only the identification of a contestable judgment with an unproven judgment clearly corresponds to the meaning of the word ‘prove’, so that what is incontestable, is simply not-unproven. Here lies a very deep problem which I will discuss in the extreme directions of my antitraditional program. The non-necessity of distinguishing judgment B from not-not-B for any accepted goal is an important means of overcoming these difficulties and gives the possibility, having rejected these distinctions, of replacing them with identifications.

Also the described principle of the logic of confidence, by the way, depends on the elimination of the double negation. And many problems in ethics and jurisprudence have to be related to it. Judges satisfy themselves with confidence in a witness’s testimony based only on the fact that the law forbids a witness to lie on pain of punishment. But obviously, even assuming that the witness obeys this law and does not lie, only the fact that A is not false can be derived from his stating A; yet in general the judges accept A instead of not-not-A, and there is no basis for it.

But the fact that this commonly is not noticed shows such weakness of logic in the contemporary moral sciences that the level of rigor herein proposed as their grounding will undoubtedly appear a major achievement. In addition, this program for their grounding claims to subordinate the development of these sciences to some morality, but any morality, as has already been noted, must contain only fulfillable demands. In court cases the criterion of incontestability must also be understood in conformity with legal possibilities. In practice this particularly entails recognition of the impossibility of disputing testimony A on the sole basis that only not-not-A has been derived from obligatory testimony.

In establishing norms of courtroom procedure, besides the necessity of publicity (following, as was shown, from the principles of the logic of confidence), it will be necessary to pay attention to principles of the theory of relevance. Judges are granted the right to interrupt irrelevant speeches, but they must be denied confidence when there is a danger of their abusing this right. The concept of irrelevance depends on the tactics of attention: in any such tactic only that which cannot be connected with A (according to its rules) is called *irrelevant* for A, and the basic principle of the theory of relevance consists in its permitting only irrelevant matters to be disregarded. In this theory there are some general requirements for the tactics of attention. Attention to means toward goals often must be preferred to attention to obstacles in the creative stages, but in the control and executive stages this is impermissible, and obstacles must require undivided attention. In an honest dispute it is impossible to deprive either party of the possibility of proving the relevance of any subject to the theme of the dispute. In the courts the procedural rights of the parties must be considered clearly connected with disputes, and thus for a trial to be complete disputes about the law absolutely must be allowed in court. But an undue burden of proof cannot be laid on anyone (otherwise the rules could prove unfulfillable), and unfulfillable demands cannot be introduced jnto the procedure. Therefore some presumptions are inescapable, as is an acknowledgment of the lawfulness of using some generally accepted tactics, including tactics of attention. In some cases the irrelevant character of given subjects can be recognized as obvious. Further conclusions about irrelevancy can be made on the basis of the principle of alienness (applied, for example, in the following form: that which presupposes something irrelevant can be considered irrelevant). (This principle was introduced in [2,3]; for its theoretical-modal grounding see [3,pp.4l7-419]). However, presumptions may be considered incontestable only until such time as one participant in a dispute protests any one of them, citing a peculiarity of the case, the possibility of a general refutation, or any irregularity in their application. This right to contesting should be related to generally-accepted tactics just as it is to presumptions.

In particular, all cases of neglect not in accordance with generally accepted tactics should be clearly noted in a dispute since they can (and often do) play the same role as assumptions. For the same reasons all identifications made not in accordance with generally accepted tactics should also be noted in disputes.

The rules of the pure predicate calculus allow for a theoretical- modal grounding and therefore may be freely applied in disputes with only these reservations —that the grounding be connected with a definite interpretation of logical operators and that the laws of the excluded middle and the elimination of the double negation be inapplicable in disputed cases. But in cases when the applications of the latter laws involve constants or junction symbols, iterated applications of the rules of the predicate calculus must be accompanied by ultra-intuitionistic precautions [2,3].

By the term ‘freedom$_l$’ *(svoboda)* [Since there are no English terms which

convey the contrast of svobodny and vol'ny, subscripts will be used: 'free$_1$' and 'free$_2$'] I mean the quality of acts of not being obstructed, i.e., impeded by obstacles; I call such *act free$_1$ (svobodny)*. I call an activity *free$_1$* if in any of its situations every one of its acts is free$_1$, etc. I call an agent *free$_1$* if his activity is free$_1$. In this way the term 'freedom$_1$' signifies a quality of both an action and an agent.

In this case, in particular, 'obstacles' are understood as eventual obstacles.

The organic possibility of an act or an activity is compatible with the presence of an eventual obstacle which will not be realized. Therefore one may have the possibility of performing unfree$_1$ acts and carrying on an unfree$_1$ activity.

An activity encountering obstacles is not free$_1$, but if these obstacles are overcome, a wider activity, including overcoming these obstacles within it, may be free$_1$.

A free$_1$ act can be compelled. This often happens since a person compelling an act usually does not obstruct this act and may even eliminate obstacles.

I call the quality of an act's not being compelled its *freedom (vol'nost)* and the activity consisting only of free$_2$ *(vol'ny)* acts free$_2$,— in which case I ignore compulsions deriving from the requirements of the activity itself (i.e., describing its tactics). I call an agent free$_2$ if his activity is free$_2$ and if, in addition, he has not been compelled to choose it. I call this capacity in an agent his *freedom2.*

A free$_2$ act may be unfree$_2$, and the same is true of an activity or agent.

Ordinary language uses these terms inconsistently, creating a powerful obstacle to their correct usage. Therefore, a term is needed designating the combination of freedom$_1$ and freedom$_2$; I will designate this combination by the Greek word *e/eutheria,* and I will call acts, activities, and agents which are both free$_1$ and free$_2$ *eleutheric.*

Even this term is not felicitous in all respects. I call the absence of obstacles to the opposite act the *independence* of an act (understanding opposites as a pair of acts [A, not-A]—not-not-A-acts can usually be identified with A; in the contrary case the question becomes more complicated). I will call an act which possesses this property *independent,* an activity made up only of independent acts *independent,* and I will call the doer (agent) of an independent activity *independent* if the very choice of the activity is independent for him or if this activity is not selected by him and he did not have obstacles to prevent his selecting it. Acts compelled by the rules of an activity (including rules of external activities) are not considered as obstacles here. Independence is certainly a narrower quality than freedom$_2$ (i.e., an independent act must he free$_2$, etc.). Sometimes it is convenient to consider 'eleutheria' as the combination of freedom$_1$ and independence. I prefer to call this *eleutheria in the narrower sense,* keeping the previous meaning for *eleutheria.*

Morality can be established for the most varied purposes. It may he as hostile to the freedom$_1$ and freedom$_2$ of an activity as one could wish. But since one activity can obstruct another and even make it impossible, one must make a choice or prefer one to another.

That which is preferred is called *better* than what it is preferred to, which is called *worse.* For this very reason everyone always prefers the better and must do so on the strength *of pd-on.* This is a tautology. But different people are guided by different tactics of preference, or *tastes,* and even the same person at times follows different tastes, determining he choice of more particular tastes in various situations and in relation t*o* various classes of objects being preferred). Cases where a person apparently chooses something worse are explained in this way. In such cases apparently there is a play on words, and the terms 'better' and 'worse' are applied in

connection with a taste other than the one being employed, these terms are very often used to conform with a most widespread or common taste, and one must know how to correct this.

The very property of 'being better' is called *goodness;* the opposite property ('being worse') is called *evil.* These terms are also used to designate everything that is better or, correspondingly, everything that a worse.

If an object is preferable to some (similar) objects, and taste does not demand preferring another, that object is called *good.* On the other hand, when taste demands preferring some other (similar) object, such an object is called *bad.* To be sure, these words are sometimes used not entirely in this sense, but with intelligent usage their meaning may always be made more precise in an analogous way. Thus, 'goodness' is defined as the sum total of everything good.

Ethics is often defined as the "science of the good." But this word is used diffusely, and I prefer to define ethics as the *science of moralities.*

According to this view of the fundamental rôle of preference in any morality, this concept does not diverge greatly from the generally accepted one.

An activity can be *afield of action* or a concrete *act.* The difference consists in an operation's generally being made up of concrete actions thought of as being performed in some connection with each other, consecutively, etc., while a field of action consists of an abstract process formed by all possible acts of a given sort performed within the limits of conceivable activities. For example, a chess game is an activity (consisting of moves performed by turns according to definite rules), while the field of action of a chess-player is the game of chess as such.

I will call the taste which prefers eleutheria to all other properties of an activity being considered *eleutheric* (in relation to that activity), and a morality chosen with eleutheric taste from among all other possibilities for a given occupation will also be called *eleutheric.* I will call the part of ethics studying eleutheric morality *eleutheric ethics.*

General motives prompt everyone to follow eleutheric taste in choosing a morality. Anyone engaged in an activity ordinarily is interested in avoiding obstacles, i.e., in attaining $freedom_1$ in this activity. One prefers to choose the activity itself according to personal taste simply because one is guided by personal preferences and wants to he free in this. Therefore everyone tries to avoid (extraneous) compulsions and strives toward freedom2. This combination of striving for $freedom_1$ and $freedom_2$ defines *eleutheric* taste. But it may not appear so at all when a person is so deprived of $freedom_2$ that he does not choose his activity and is therefore compelled to be indifferent to it. In such cases even obstacles to the activity can not hinder the demonstration of personal tastes simply because these tastes are in no way associated with the activity. This is a *slave* relationship to an activity, but this phenomenon does not mean that the slave has no personal taste. Taste can be in evidence outside the limits of any activity. If the activity is compulsory, and the slave has been trained by it, indifference appears as one of the overriding features of this taste. Such a slave will strive to preserve his indifference, seeing goodness precisely in indifference, but even in so doing he will need freedom1 and $freedom_2$, i.e., eleutheria.

In any morality, that which is permitted is considered a *right,* that which is

required — *a duty* or *obligation* (although it would be more convenient to apply the latter term only in connection with legislation). Prohibitions limit rights, but I do not intend to say that they abolish them. Having adopted a morality, a person has, from the point of view of that morality, a right to that which is not authorized as long as it is permitted. The person must obey a prohibition, and then he cannot take advantage of a right. When in conflict with a prohibition, therefore. a right loses its actual force while retaining its theoretical meaning.

No morality exists until there are clear terms for the categories of rights and obligations.

An eleutheric ethic can be applied to the search for a morality for any type of field of action. (For some selected goals in the search for morality one must subordinate the field of action itself to an external activity.)

But in striving for eleutheria in a field of action, the search for morality (being also a form of activity) must be limited by considering any morality which contains ungrounded demands bad. The ethical law of sufficient reason consists in having every rule grounded. Since the initial taste in the search for morality is eleutheric, the search begins tinder the conditions of a liberal regime. Permission for any act in the field of action under consideration arises at once, but generally this creates a dead end, since some acts obstruct others (of the same or another person), violating their $freedom_1$. Limitations must be introduced. These primarily concern the freedom1 of acts necessary for a field of action or for its goals, but also for the goals of activities being carried out in this field of action. The $freedom_1$ of some acts is attained at the expense of the $freedom_1$ of others, and the problems of the search for morality begin with the establishment of the necessary taste for freedom1 or for eleutheric activity. Generally $freedom_1$ of needed acts is more important for the goals of a field of action than independence or even $freedom_2$ since the compelling of acts does not obstruct them. Nevertheless, eleutheria is necessary not only for the satisfaction of the agent, but also for the goals of the field of action since opposed acts, one of which is harmful for the goals (i.e., may serve as an obstacle to their attainment), can belong to one field of action, and in the absence of freedom2 the harmful act may prove to be compulsory.

Eleutheria becomes a goal in relation to needed acts, but every demand upon the acts of the field of action may limit eleutheria. Therefore, the law of sufficient reason for these demands is adopted— every demand must be grounded. The provenjudgment that a rule can or must be accepted for the attainment (or the attainability) of accepted goals can serve as grounding for a rule.

Thus every demand, including every prohibition, must be grounded. This means that during its construction a morality must be authorized for adoption only in the presence of bases. In constructing an eleutheric morality one must follow a fundamentary regime. But if accepting a demand again creates a dead end, exceptions, grounded on the presence of the dead end, are permitted. This is also in accordance with the fundamentary regime.

Demands are introduced only when there is a need for them, as under a liberal regime (the demand for an act is the prohibition of the opposed act). But in the presence of an accepted (grounded) demand only necessary exceptions must be made, as under a despotic regime.

Groundings for the acceptance of rules include two important groups — those sufficient for a goal and those necessary for it. (A third group consists of cases where new rules are adopted on the basis of previously accepted ones.) In the second case the rule absolutely must be accepted (on the strength of the supplement to *ip),* but one

must also adopt those rules in the first group which are sufficient in their totality (on the strength of *ip).* As is true with every selection of sufficient means, the choice is far from simple. Sufficiency must be established for those means found; one way of doing this is by proving their sufficiency for an even more difficult, but better known, goal which, once reached, makes the attainment of the given goal obligatory. In this way sufficient — and more than sufficient — means are found for the given goal. Thus, although it is possible to choose among sufficient means (in the aggregate of such means), often one must choose those which are more than sufficient.

Demands included in an *eleutheric* morality may therefore prove to be redundant despite their being well grounded. This occurs when the grounding consists in proving the sufficiency of these demands for the avoidance of some evil. Therefore, according to eleutheric taste, even eleutheric morality must be constantly reviewed, whenever possible, with a view to easing its system of demands.

The search for a more rigorous grounding of morality of jurisprudence can be an important means to this end. For example, as a means of avoiding the appearance of especially dangerous murderers, a legislator is allowed to demand the severest penalty for murderers who are guilty of killing in a way that endangers many lives. Such a demand must be grounded in each individual case, but clearly this permitted demand is excessive in cases when it is applied to a murderer who has killed (only) one man and at the risk (only) of his own life. Formally such cases come under the rule of the aforementioned law; however, the law appears imperfect in view of the excessive nature of the demand permitted. Following the basis of the law, it would not be difficult to detect this excess and suggest that the legislator avoid it.

The distribution of the burden of proof in a civil or criminal trial is derived from the eleutheric principle of the necessity of grounding demands. The plaintiff must ground his demands by proving the presence of those circumstances which he advances as their basis. The burden of the proof of their lawfulness, that is, that in these circumstances. on the strength of the law, he is entitled to satisfaction of his demands, rests on him. The prosecutor, demanding punishment for the accused, must also ground his demand by proving the guilt of the accused. A court verdict assigning the accused a heavier punishment than that which the prosecutor was able to ground must be considered unjust. If the prosecutor refuses to prosecute, only a verdict of not guilty can be considered just (in as much as the court is considered only the evaluator of arguments presented to it, not the creator of new arguments).

I define *justice* (of a moral system, a law, an agent, etc.) as a following of the law of sufficient reason in adopting rules of conduct (in law or morality itself, as well as in any external character of conduct). This means grounding every demand and every exception to accepted demands, violating someone's eleutheria only on irreproachable grounds, and striving for a review of laws and morality according to eleutheric taste.

Principles of equality before the law, or equal rights, do not constitute the essence of justice, but are only an important feature of its development in our time.

Justice is greatly endangered by any allocation of power to some people over others or by granting of advantages which in fact give the possibility of exercising such power or in other ways suppress justice. Equalizing the rights and economic opportunities of people has been suggested as a means to fight this danger, but the principle of equal rights itself represents a not-fully-grounded demand (in view of its excessive nature) and in practice it is observed only with reservations. Moreover, in fact legislation necessarily either violates or emasculates this principle each time a question involves the rights of people occupying opposing positions in a system

involving the exercise of power. What is there to say about the equal rights of a commander-in-chief and a common soldier? They are equal before the law, but only in the sense that each one, being a commander-in-chief, has the same rights Rod responsibilities, and likewise for a soldier. (This way of conceiving equal rights constitutes what I have called the "emasculation" of that principle.)

But despite the imperfection of the principle of equal rights contemporary seekers after justice as a rule are bound by this principle The danger just mentioned continues to exist and reappears at each departure from the principle. It of course follows that one must achieve precision in formulating reservations to this principle, but searches for a better principle, though considered, have not become actual thus far.

The demand that everyone tell only the truth—or, even more, the whole truth—in all cases could be considered just. The danger of lying and silence being used as means to cover up an injustice would serve as a basis for this. But upon reflection anyone would recognize such a demand as unfullfillable since ordinarily people do not know the whole truth and are constantly unable to escape various errors and inaccuracies. Besides, in some cases frankness turns into impermissible betrayal. Therefore this demand must be limited to the prohibition of an intentional *lie* (i.e., expression of opinions which are incompatible with the opinions of the speaker), and silence must be permitted in all cases other than those where it is incompatible with the obligations of a given person. Furthermore, it would be absurd to accuse a mathematician who publicly adopts a false assumption in order to refute it or an actor who calls himself "Hamlet" on stage, although that is not his name, of lying. In addition to intention, indicators of an intentional lie must include the lie's being committed without warning and without the consent of the interlocutor as well as its being directed generally toward a person who has the right to hear the speaker. Anyone who has given his audience or readers warnings and reservations clearing his words of any false character must be free of reproach for lying even if, through no fault of his own, the warnings and reservations are not heeded by his addressees. One who has himself, by morally inadmissible means, compelled another to lie has no right to rebuke the other for lying. With these qualifications, an ethical prohibition of lying can be considered just. In any case, it is more just than the previously considered demand to always speak only the truth, and it does not infringe upon the freedom to express any opinion, which is the chief value of freedom of speech.

However, one can agree that, despite the reservations stipulated. this demand never consciously to lie (which now assumes "without warning and without the consent of the addressee" remains excessive, since a lie does not always infringe on someone else's rights or presents a danger, and this prohibition limits freedom of speech all the same. Thus it would be even more just to demand the prohibition of lying as a means of concealing acts which are at variance with the demands of a recognized morality, as well as the full prohibition of lying in the course of procedures directed toward deciding disputed questions of morality or law. Without pursuing this theme further now, I merely call attention to the way that successively considering bases in this example led to a restriction of the demand and an increase in its justice.

[I make the concepts of use and harm explicit in the following way: to *aid* in attaining a goal means to give or create means for its attainment or to remove obstacles (to give or create means for their removal). Everything that can aid in its attainment is *useful* for a goal; everything that can create obstacles to its attainment is harmful. *Usefulness* and *harmfulness* are the capacity to "be useful" and "be harmful," or the aggregate of what is useful CI' harmful (sometimes also called 'good' or 'evil'). According to the theory of relevancy, in each case only relevant use or harm is

considered. When applied to desires, use and harm are understood as use or harm in the attainment of the goal of satisfying the desire.]

Common morality consists of rules either wholly unwritten or adopted by a religion or other ideology and constantly undergoing arbitrary interpretation and factual distortion. The basic task of legislation is precisely to fixate formulations which are obligatory for all.

The establishment of morality, however, is not solely a social task. Every individual in striving to maintain his own character is compelled to invent rules of conduct in various circumstances to attain this goal. Such rules make up a system of *personal* morality, and an individual can also follow a variety of personal moralities in various fields of action or under essentially different circumstances. The individual himself decides these questions and, in the work of ethics, enters into the study of useful recommendations. An individual may subordinate his conduct to the rules of a written morality which he establishes.

Legislation may contain *norms* appearing not simply as rules, but as rules provided with an indication of their goals and supplementary rules *implementing* a definite way of following the basic rules, i.e., preventing their violation. Supplementary rules can also anticipate "compensatory conduct" in case of a violation of a basic rule, i.e., in such a case demand the adoption of some other (usually defined) system of rules in pursuit of the same goal.

From the viewpoint of eleutheric taste, the general goal of the adoption of legislation must be to include all rules and other norms necessary for eleutheria while allowing each individual to ignore any rules (norms) not included or choose among them according to his own taste. The demand for publicizing legislation derives from this, since without publicity the attainment of this goal would be hindered.

One must remember that morality and legislation always set themselves other goals besides eleutheria. Often they do not fully value the meaning of $freedom_2$ and try to provide $freedom_1$ only for those fields of action or agents which the lawmaker considers usefull for satisfying his desires. This is a violation of eleutheric taste.

Many norms included in legislation and morality are essential not for one field of action or another, but for life as a whole, and in Such cases life must be regarded as the broadest field of action of a person embracing all other fields of action.

When eleutheric taste is violated, the $freedom_2$ and especially the $freedom_1$ of the affected fields of action are not so much ignored as considered subordinate to the other, more important goals for these field of action. Violations of $freedom_2$ can really be useful for a field of action although they may harm the people participating in them (i.e.. their desire to follow their own character). A lawmaker (or one who establishes such a morality) prefers the interests of the field of action affected to the interests of the people participating in them. [That which is connected with accepted goals and desires is *interest(ing)*. Something interesting *offers interest.* But when one speaks of preserving or preferring interests, only interests useful for these goals and desires are considered.]

It is evident that eleutheric taste must be expressed in quests for means of its proper implementation, means for preventing any violation of it. But this does not necessarily mean that eleutheria is acknowledged as the supreme goal. Often people rationally consider it only a means for attaining other, higher goals such as striving for truth, love, success, etc. However strong eleutheric taste may be, it must, according to its own rules, allow these strivings to develop. Their very development is needed for eleutheria.

But people are often mistaken about the meaning of their own strivings. The

concept of 'truth' is connected with the acceptance of faith which immediately creates a danger of error and inclines toward satisfaction with an incomplete knowledge of truth. People strive toward a universal love, forgetting that before all else love is a preference for the beloved creature above all others and therefore cannot be universalized. They tell each other that various ideas are good, hardly caring about the bases for using this term. Contradictory situations are created in which incompatible goals and desires are recognized as good; obstacles necessarily arise and $freedom_1$ for many important and highly valued goals vanishes. In such circumstances a person who knows how *to* adapt well to common prejudices and manage their play often gets power over the others. This is a case of "ideological power" (understanding 'ideology' as a system of prejudices significant for morality). [The word 'ideology' literally can signify any system of views, including one based on logic. But in fact it has long ago lost that meaning since logically grounded views, in the course of becoming known, cease to be objects of sharp social conflict—people agree with them. In "ideological warfare" those views which are based only on the tastes of the combatants, before any examination, are precisely the ones which acquire sharp significance**.** For this reason I consider ideology as a system of prejudices.] Without necessarily going further in its choice of goals than striving to subordinate such power and any conflict ensuing to the norms of eleutheric morality, eleutheric taste must either escape from or fight with ideological power. Striving for just legislation regulating the course of the conflict and manifestations of power, not striving to end the clash between ideas, expresses eleutheric taste.

* * *

Various ideological moralities have as goals the attainment of mutual aid among people. Eleutheric ethics must strive not so much to suppress these goals as to attain recognition of the necessity of first teaching people not to disturb each other. Every eleutheric morality must come from this principle; it expresses striving for eleutheria. But the search for an eleutheric morality is complicated, and, until it is found and established, eleutheria can be the highest goal of the seekers. During this search one must temporarily be guided by one or another preliminary system of eleutheric morality including appropriate rultes of mutual aid and other aspirations destined to be developed once a satisfactory eleutheric morality and legislation become general, but these preliminary systems are imperfect. Regarded as a means for eleutheria, they must be developed and perfected in accordance with an evolution of goals, steadfastly striving for eleutheria. The very concept of eleutheria must be made concrete in the course of the examination of changing fields of action.

Eleutheria is a means for a wide range of goals, and its worth consists in its securing many norms which are also such means. These means are necessary for many goals; although taken separately they do not suffice to attain these goals, in totality they can prove sufficient. When a choice among several such means becomes necessary, this must follow from not every means' being sufficient. Therefore if a choice must be made to adopt one of two (or more) means, preference must be given to the one which will make it possible to adopt the other in time. This is the substance of the *principle of rational choke* among means (applied, it is understood, only when one of the means considered can provide this possibility).

This principle is frequently violated for the sake of another— the *principle of urgency—which* demands that the means of obvious usefulness in a given situation be selected. This preference for the interests of the present over those of the future can

only be rationally grounded when violation of the interests of the present threatens the very continuation of a field of action. Under eleutheric morality and legislation. the continuation of protected fields of action is always worthy of concern, and, with the exception of the aforementioned cases (at least when the threat is serious), these fields of action must conform to the principle of rational choice.

In the field of recognition of rights, this principle appears in preferences for authorizing the use of those rights which can aid in protecting other rights. Even if only rights which are essential in daily life have an urgent significance for people, still preference must be given to recognizing those civil and political rights which are necessary for the protection of these urgent ones. But in circumstances where the very continuation of daily life is faced with a general threat (war, strife, or natural disasters), restrictions of these rights are permissible in order to meet the threat. Important for any right is this idea of extreme conditions under which recognized rights can be restricted, though only in the way described.

In accordance with the principle of rational choice, eleutheric ethics must uphold the following hierarchy of rights:

The right to the defence of every right must be recognized as the supreme right. In relation to unacknowledged rights, this recognition must include within it recognition of the right to fight for the assertion of unrecognized rights in morality and laws. In this case a right constrained by a recognized prohibition should be considered 'unrecognized'. In relation to recognized rights, this supreme right must : include recognition of the right to fight against any threat to violate unrecognized rights and to fight for their restoration wherever they have been violated. This right itself must be recognized unconditionally although its usage must be limited by the demands of eleutheric morality (a stipulation applied to all rights; I shall not repeat it in what follows).

Following the principle of rational choice, one must recognize the next most important right: the *right to freedom$_1$ and freedom$_2$ of thought.* This right assumes recognition of the *right to life and health.*

The rights just mentioned must be discussed with a clear delimitation of rights and obligations. Life, a most important gift, must be not only free' but also free$_2$, meaning that life should not be turned into an obligation for the living. In order to implement the distinction between a right and an obligation in this sphere, I propose to accompany recognition of the right to life with recognition of the *right to suicide.* Any general eleutheric morality must contain such a right; the personal morality of each individual can prescribe it as a duty to continue lighting for live as long as life has value for him, but eleutheric ethics, not the morality accepted by society, must prescribe the right to suicide.

Even participation in the life of society, choosing one or another morality for oneself, must be free$_2$. Recognition of this principle must he considered a necessary corrective for any imperfections of morality or legislation. Therefore the *right to leave a society* must be recognized for each person, limited only by the demand that the fulfillment of obligations stemming from just demands of the morality and laws of that society be guaranteed.

Furthermore, the *right to associate with other people* for the goal at lawfully attaining one's goals or to guarantee the freedom$_1$ to realize one's rights must be recognized for everyone. This right can be limited only by just demands directed at preventing the formation or development of associations which endanger eleutheria.

Additional civil and political rights (to freedom$_1$ of travel, expression of opinion, meetings and assemblies, choice of one's field of activity and one's role in it,

fair trial, etc.) must be counted by legislation among the inalienable rights subject only to those restrictions without which the lawgiver cannot guarantee their observance. Various social and cultural rights (to education, work, leisure, compensation, and material security) become necessary as society develops and life becomes more complicated for the participant. The lawgiver must strive, insofar as he is able, to recognize and guarantee these rights (without limiting the freedom, of those people who refuse to carry the associated burden to leave the society). The development of science increases the possibility of public health care, and the lawgiver, in the course of protecting each one's right to life and health, must strive to recognize everyone's equal right to make use of this aspect of progress.

In the field of criminal legislation, the lawgiver must confine himself to prohibiting those acts which obstruct recognition or realization of the rights of individuals or lawful associations. These prohibitions must be considered limitations of civil and political rights. They should be expressed by norms which present serious obstacles to the commission of these acts (called 'crimes') by creating inescapable threats for those guilty of them. In choosing these threats the lawgiver must go no further than is necessary for the loss of the desire to commit a crime (or to cooperate in its commission) on the part of a potential criminal.

Contemporary criminal law establishes punishments which do not at all correspond to this goal and are connected with crude, often unmotivated prohibitions of freedom$_1$ of movement. Logic can only seek explanations, not justifications, for these measures. It is futile to try to logically ground some crime's having to be punished by, say, five years' deprivation of freedom instead of four or six since the very measure of deprivation of freedom in the overwhelming majority of cases represents an injustice. The contemporary way of enforcing this represents an additional grave injustice, forcing one to see the makers and executors of laws as the enemies of all eleutheria. But logical connections could be established between the gravity of various crimes and, correspondingly, the severity of punishments. Although rape is a very grave crime, the law which punishes it more severely than premeditated murder is clearly unjust. Logic can assist in removing such imperfections in Legislation.

Criminal laws act to restrict civil rights, but the Legislation must be public particularly so that each one can know the limits of his rights. Therefore criminal laws must be formulated with sufficient clarity to the rights they defend and at the same time not subject other rights to unnecessary constraints. As I have already stated, the necessity of legislative activity constantly gives rise to some excess in prohibitions, but one must strive to keep it to a minimum. Every inexactness in criminal law must be interpreted by the courts to the advantage of the accused (this is one manifestation of the presumption of innocence), and laws must be drawn up taking this circumstance into account.

Legislators of criminal law should recognize that in individual cases the prohibitions they establish may in practice prove harmful to these goals or to more important laws, and therefore they should provide that violating the prohibitions in such cases does not represent a crime (principles of extreme necessity and necessary defense).

The legislator is compelled to forbid not only that which he must consider a crime, but also that which creates the danger of crimes. This is clear since the chief goal of criminal legislation is precisely the prevention of crime. Thus in many cases an attempt at a crime must be considered a crime. But it would be dangerous to go too far in this direction since in practice an attempt may be represented by harmless acts.

For example, acquiring a fatal poison for the purpose of murdering another person can be considered fully grounded as a dangerous attempted crime. But punishing someone for an attempt to commit this crime is equivalent to punishing for an attempt at an attempt. A visit to the pharmacy (even without a prescription, in order to make inquiries) can be accounted an attempt to acquire poison. And so approaching a pharmacy can be considered an attempt at such an attempt. Of course one must stop at some point, and in defining this stopping point it must be remembered that even keeping poison in the house is not always connected with serious danger to anyone's life.

Therefore cases of punishable attempts at or preparations for a crime must be defined precisely by law without causing unnecessary restrictions. In this connection it is useful to establish that attempts and preparations are punishable only if a punishment is included under Criminal law. This must also be established for various forms of indirect participation in crimes (complicity, instigation, non-reporting, concealment, etc.)

One danger in establishing oppressive criminal prohibitions is the indifference of the public, and often the legislators as well, to the "authorization" of acts which are in practice either impossible or rarely necessary. People rarely emigrate abroad and may therefore lose a vital interest in this right. As a result, completely contrary to the principle of rational choice, prohibitions of and insuperable restrictions on this right can be introduced and accepted almost painlessly. No one is capable of jumping over his own house and the public could accept a prohibition against doing this lightly. But if the law forbids any attempt at a crime, and the judicial process does not protect the rights of the accused sufficiently, anyone who for some reason ran toward his house and was suspected by a policeman of running with the intention of trying to commit this crime would feel the weight of that prohibition on himself.

The specification of criminal prohibitions serves as a guarantee of the observance of civil rights. But such prohibitions do not have to exhaust the number of guarantees. For all isolated cases of violation of civil law, a procedure of judicial satisfaction of civil suits authorizing restoration or compensation must be anticipated by legislative process. Such violations must either not be considered crimes at all or, when they endanger the further functioning of the legal order, be subject only to a fine or milder measures (besides the satisfaction of the civil suit).

The principle of time-limit [statute of limitation] must be recognized in criminal law. The bases for recognizing this principle are the recognition that people change with time and that it is clearly unjust to punish someone who was not guilty of something. The factor of time can play a more important rôle in identifying or distinguishing two personalities than common origins or external resemblance and physical identity. This consideration is completely independent of the sort of crime to which it is applied, but simple formulations can only lead to very crude and unsatisfactory criteria. Of course, after a lapse of twenty years it is awkward to punish a person for any crime whatsoever (the term of concealing a crime from judicial action can be included in the period of the crime), but criteria allowing the grounding of a much earlier application of time-limit must be sought. However, a point of view demanding (always or in serious cases) that for a certain time limit the criminal not be freed from responsibility, but the question of the permissibility of the application of time-limit be raised, is possible. In this case doubts must be resolved in favor of the criminal since they are doubts as to the correctness of his identification.

I have already spoken of the importance of judicial procedures. Since they are guarantees of the correct definition of the administration of justice, they themselves

must be carefully described by rules of trial procedure drawn up with the demands of justice (including assignment of the burden of proof and, in connection with this, the presumption of innocence) and the principles of the prototheories, in particular the theory of relevancy, taken into account. On the strength of the principles of the logic of confidence, publicity, as I have said before, must be considered a necessary requirement for judicial procedure. Since violations of publicity create the possibility of further violations of procedure being easily committed, publicity appears as a most important and necessary means of fighting for the implementation of all the remaining rules of the administration of justice, and, on the strength of the principle of rational choice, it must be considered the most important of the procedural principles.

In spite of this, legislation concerning trial procedure is forced to introduce some restrictions on the publicity of courts. But, like every violation of necessary conditions, these restrictions must *in all cases* be compensated for by special guarantees that attain the goals of these same conditions. Thus *any* violation of the publicity of the courts anticipated by the law must be compensated for by additional guarantees *again based on publicity.* (I explained how this might be done in my work on publicity published in issue No. 7 of the journal *Obshchestvennye problemy [Social Problems],* 1970) Publicity is only the most important condition, but it is far from the only one necessary for justice in judicial procedure. The violation of any such condition, or of any important though not necessary condition, must be considered sufficient indication that a court has not judged, and this must render any decision adopted null and void.

The publicity of legislation must be expressed not only in generally available publications, but also in codifications which give everyone the opportunity to verify that some law exists and, in case it is missing, to refer to this fact as a manifestation of the will of the lawmaker. Codes are sufficient for this purpose; collections put together by jurists are not always sufficient. The constitution of a state must contain a list of the Codes governing the extent of the rights and obligations of each person.

To attain the necessary precision each code must contain a section presenting the meanings of all words used in it which are little known to the public or are ambiguous in ordinary language as well as rules for Interpreting the laws contained in it.

Striving for brevity is useful in legislation since brevity aids in locating a law and contributes to the portability of the code, but clarity and completeness of formulations must be considered more important qualities of legislation. Therefore one must not fear lest the code become a heavy folio volume, although for everyday purposes in such cases abbreviated editions or partial codes and fragments of whole ones, may be necessary.

In the field of morality I agree that falsehood [lying] is the most dangerous of all human vices. Guided by the principle of rational choice, I recommend that the fight against this vice be carried on everywhere as a means of overcoming the remaining vices. Let each person dare to sin only to the degree that does not require him to lie in order to conceal or justify his acts. If this principle prevailed, all other dangerous vices would be rendered sufficiently harmless, but as long as lying is authorized, all other means of fighting for moral perfection will hardly be effective. Therefore I consider the problem of the fight against lying the basic one in the task of implementing any morality. But the means of fighting lying must be just. Each individual must be protected by legislation from false accusations of lying, and the lying itself must be prosecuted by means more just than criminal penalties. The natural punishment for a liar is to be exposed and (for a reasonable period) denied confidence. This is the

means that eleutheric ethics must recommend to any eleutheric morality. Every supporter of eleutheric morality must steadfastly recommend that a prohibition against ethically impermissible lying be included in one's personal morality. The more precise definition of this prohibition must be reserved for theories, but in practice I think every honest man can link himself to this without serious discomfort and not consider it extremely restrictive.

The development of the custom of employing any rule precisely as it is adopted is another important means recommended by eleutheric ethics for implementing any just eleutheric morality. The words entering into the formulation of rules must be understood only in their literal meaning, and the same must be true of accusations, reproofs, and demands presented to other people. When I say this I have in mind the necessity of overcoming the habit of associative thinking in all these cases, however valuable the capacity to associate ideas may be in various fields of creative work. Justice consists in using rules and constraints in accordance with a fundamentary regime, i.e., being always well-grounded; association has value only in the creative stages of an activity which are subject to a liberal regime. (Of course this does not relate to the kinds of association used for understanding the exact sense of various texts, including rules.)

In particular, one must distinguish between accusations and reproaches, using the first only in connection with crimes or demands for punishment. When a bad act does not give bases for accusations, one must be limited to a reproach, that is, an indication of the bad aspects of an act which does not entail any consequences beyond those foreseen by the rules of the field of action and, perhaps, the breaking off of personal relations.

Many imprecisions inherent in everyday speech and dangerous to justice must also be fought. In Russian, for example, the phrases "does not have to" *[ne dolzhen],* "it is not necessary" *[ne nado],* and "I do not want" *[ne khochu]* , despite generally recognized rules of grammar, are used in the sense of "has to not" *[dolzhen ne],* "it is necessary not" *[nado ne].* and "I want not" *[khochu ne]* more often than in their literal senses. (Analogously for the common colloquialism "it is not comnanded" *[ne veleno].)* This removes the possibility of using negations arid modal words as signs in logical deductions and inclines one toward associative or figurative thinking where logical precision is needed. Another example of a dangerous imprecision in language is the widely disseminated disregard for the word 'only' which is often omitted where it ought to stand—even in laws and other judicial documents. One could adduce a good many similar examples. In necessary cases, of course, precision can always be restored, but one must insist that this always be observed in judicial documents.

Moralities and legislation always face the problem of who is affected. While discussing the principle of equal rights, I spoke of the dangers of discrimination. Because of these dangers it is preferable that the effect of every eleutheric morality affect all who agree to that and are not bound by the principles of another, incompatible morality. This means recognizing the rights of foreigners in particular. Of course this principle must be applied with limitations directed against the dangers of tolerating too many subjects alien to it who would want to subordinate the principle to their own ends or destroy it. Legislation must recognize the freedom of association within a society with the same limitations.

It is not necessary to seek a logical grounding for justifying existing social and government institutions since these institutions will certainly change and, in many cases, should on principle, injustice give way to better ones little resembling existing institutions. The state itself has value only as a legal institution guarding the rights,

interests and lives of its citizens and other residents of its territories. The state claims powers not connected with its rôle and by these unjust claims it naturally turns honest citizens into enemies. In developing eleutheric theories, one must separate the state as a legal institution from all other functions of those organisms which have been called "states" in history and politics. As a rule, when connected with these other functions, demands on individuals and associations are unjust.

The territorial principle of extension of governmental power is defined not by the demands of justice, but by historical circumstances. A free distribution of societies following various just systems of morality and legislation in their inner lives and intermingling in cities is fully imaginable. Isolated excesses—conflicts and crimes — would be considered by local powers independent of these societies and capable of applying the norms of any law depending on the affiliations of the parties or on agreements between the societies. But this assumes a level of ethical development higher than that reached by any human society up to the present time.

I have set forth everything on the theme of the logic of the moral sciences that I consider possible and sufficient for the present article. Of course this is not a logical investigation in all respects since I have deliberately permitted some freedom of style. A logical investigation of this theme would have taken up a great deal more space and would have appeared to be a clarification presented in the spirit of extreme pedantry. The basic idea of this work must be that the rules of ethics and jurisprudence can admit a far stricter grounding than that heretofore accepted. This basis, relying only on generally accepted tactics of sign usage which are unavoidable in any dispute, is the focus of the discussion.

Of course, not everything in the moralities and laws adopted in one place or another allows for such grounding, but this is so only while the goals of a legislator remain unexposed and the circumstances in which he creates his rules unclear. With the clarification of either point, it will always be revealed that a rule is accepted in laws as a means for attaining the goals of the society or the legislator in given conditions, and that this happens in accordance with optative logic. This is so if mistakes, as unavoidable in legislative activity as in any other, and manifestations of obvious, sometimes absurd, petty tyrannical power are avoided.

Much that is valuable in my eyes in this conception of ethics and jurisprudence seems trivial and generally known. Just rules and systems should become trivial and generally known; this is the task of thinkers studying them. This prepares the way for their acceptance and observation in places where these goals have not yet been attained. But I want another goal to be attained as well. The development of morality and law have been most often explained by historical, sociological, psychological, biological, geographical and political factors. The logical factor has hardly been mentioned. This promoted the spread of the conviction that the victory of just norms is always connected with some sort of historical conditions. Now let logic in its development show everyone what $freedom_1$, $freedom_2$ and justice are, and may the very spread of the ideal of eleutheric ethics constitute an important historical and social factor preparing for the victory of those ideas.

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List of abbreviations

pmf principle of modal fulfillment
pd.-on principle of deontic—organic necessity
pd.-en principle of deontic—epistemic necessity
pd.-oc principle of organic compulsoriness
pd.-ec principle of epistemic compulsoriness
I.p. inversion principle

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2. A.S. Yessenin—Volpin, "The Ultra—intuitionistic Criticism and the Anti-traditional Program for the Foundations of Mathematics," in *Institutionalism and Proof Theory, Proceedings of the Conference at Buffalo, 1968.* North—Holland, 1970, pp. 3—45.

3. pt. 1, Moscow: VINTI, 1969: deposited manuscript no. 1202—69. 450 pg.~, (In subsequent parts, the theory of modalities mentioned therein and *in* the present work will be further developed).