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## **UNDERSTANDING HUMAN BEING: CONSTRUCTIVISM *VERSUS* NATURALISM**

In this article I trace back some developments in relations between culture, on one side, and scientific and technological advances, on the other side. In my view, these observations could help us to understand some aspects of current debates on goals, possibilities and limitations of the extensive use of biological and medical sciences for the sake of preserving, restoring, prolonging, reconstructing or even constructing anew individual human existence. I would like to emphasize the tremendous importance of different moral or, more fundamentally, value positions for our grasp of arising biomedical possibilities and, even more, for directing scientific and technological developments in this field.

Taking into account the difference in grasping life, in general, and not just human life, I would like to point out that Darwin's conception of the origin of species through natural selection has not only profoundly influenced the scientific understanding of life. It turned also to be a source of, or support for, different versions of naturalistic ethics. There are striking intercultural differences in the acceptance and promulgation of those different versions of naturalistic ethics. First of all, it is interesting that the dissemination of Darwinism in Russia was often associated with the strong rejection of the ideas of "struggle for existence" and "survival of the fittest".

Take, for example, Prince Peter Kropotkin (1842–1921), a Russian philosopher, anarchist, geographer, natural historian, one of the most eager proponents of Darwinism in Russia. P. Kropotkin developed his own conception of evolution assuming not so much struggle for existence, but mutual aid; he acknowledged the presence of the struggle for existence only in the form of the extremely severe "struggle for existence which most species of animals have to carry on against an inclement Nature" (Kropotkin 1902). His views expressed only one of many versions of the same ideas which were widespread among Russian zoologists, botanists and biologists in general, as well as among the general public. Many Russian biologists were strong opponents of the ideas of the prevalence of the ethos of struggle, and at the same time supporters of the ideas of harmony in interrelations between not only biological organisms, but, first of all, between humans<sup>1</sup>.

In his "Mutual Aid: a Factor of Evolution" (1902) Kropotkin himself referred to "the well-known Russian zoologist, Professor Kessler, in those days the Dean of the St. Petersburg University". According to Kropotkin, Kessler "struck me as throwing new light on the whole subject. Kessler's idea was that besides the law of Mutual Struggle there is in the Nature the law of Mutual Aid which is far more important than the law of mutual contest for the success of the struggle for life, and especially for the progressive evolution of the species". The views of Karl Kessler (1815–1881) referred to above were presented for the first time in the lecture *On the Law of Mutual Aid* (1880) delivered at the Russian Congress

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<sup>1</sup> Cf. Gall 1976, especially Chapter 1: "The problem of struggle for existence in evolution theory of the 20th century".

of Naturalists in January 1880. Kropotkin also mentioned some other Russian zoologists who had collected a lot of evidence of mutual aid in relations between animals, especially between birds.

Some of Kropotkin's arguments turn out to be essential for my subsequent deliberations. For instance, he refers to characteristics of the Russian wild nature, especially in the most remote and severe parts of Russia, such as Eastern Siberia and Transbaikalia, which allow an observer to grasp the genuine importance of mutual aid and social instincts (sociability) for struggle for survival in extreme environmental conditions. This argument was used by Kropotkin to substantiate not only his own views on the subject, but also conclusions drawn by many Russian zoologists. Competition and interspecies struggle may be more suitable for affluent conditions, whereas cooperation and mutual aid are necessary in the less favorable environment, characteristic of many areas of Russia. These investigations were interpreted as evidence of the (evolutionary) priority of mutual aid.

Another line of argument in Kropotkin's writings refers to the understanding of interspecies relations in the animal world as a model for explaining interrelations between humans. Kropotkin's considerations are of great importance not only for naturalistic ethics in general, which became so popular after Darwin, but also for a specific version of naturalistic ethics created and developed by Kropotkin himself. Yet in other cases arguments which have been borrowed from the grasp of social interrelationships are used as possible means of constructing explanations of evolution in the animal world. For instance, referring to a study of the French philosopher and sociologist, adherent of evolutionary theory A. Espinas (1877), Kropotkin ascertains:

“Espinas devoted his main attention to such animal societies (ants, bees) which were established upon a physiological division of labor, and his work was full of admirable hints of all possible kinds; [Espinas' work] it was written at the time when the evolution of human societies could not yet be treated by the use of the knowledge we now possess” (Kropotkin 1902).

We can see that in this observation Kropotkin states, in fact, developments in the science on human society as a prerequisite for the understanding and explanation of the phenomena of animal behavior.

Another essential aspect of Kropotkin's argumentation lies in that that he distinguishes two different approaches to studying living nature: “As soon as we study animals *not in laboratories* and museums only, *but in the forest and the prairie, in the steppe and the mountains* we at once perceive” (ibid., emphasis mine). Kropotkin sharply distinguished here two positions: one is that of a *researcher* who gains know-ledge through experiments in the laboratory and, consequently, interferes with nature, the other is the position of a *naturalist* (or natural historian) who spends the time in expeditions and gains new knowledge through pure, non-interferential observations of nature. It is clear that Kropotkin prefers the second position. This stance is manifested when Kropotkin refers to the authority of the prominent naturalist, J.W. Goethe:

“The importance of the Mutual Aid factor—‘if its generality could only be demonstrated’—did not escape the naturalist’s genius so manifested by Goethe. When Eckermann once told Goethe—it was in 1827—that two little wren-fledglings, which had run away from him, were found by him the next day in the nest of robin redbreasts (*Rothkehlchen*), who fed the little ones together with their own youngsters, Goethe grew quite excited about this fact. He saw a confirmation of his pantheistic views in this anecdote, and said: ‘If it is true that this feeding of a stranger goes through all Nature as something having the character of a general law – then many enigma would be solved’. He returned to this matter on the next day, and most earnestly entreated Eckermann (who was, as is known, a zoologist) to make a special study of the subject, adding that he would surely come ‘to quite invaluable treasuries of results’” (ibid.).

Strictly speaking, Kropotkin’s reasoning in this case is incorrect because Goethe’s observation concerned aid not to an individual of the same species, but to a stranger. Nevertheless, this example is important for Kropotkin, because it demonstrates the “naturalness” of such generous behavior in the animal world.

It is worth mentioning that Darwin took both positions in his conception of evolution. On the one hand, when he made observations during his travel on Beagle ship. On the other hand, from the very beginning of his studies he had taken a mode of activity of selectionists as a pattern for grasping the genuine meaning of variability. In other words, his initial intuitions came back as interventions into living beings, in the manner of researchers conducting experiments.

Bearing in mind the main topic of this article, that is, the values of preservation *versus* values of change, I explain shortly Kropotkin’s views on the evolution of social institutions. Kropotkin discusses the phenomena of possible “parasitic growth” of some Mutual Aid institutions and the revolt of individuals against these institutions which become a “hindrance to progress”. This revolt can take two different forms:

“Part of those who rose up strove to purify the old institutions, or to work out a higher form of commonwealth, based upon the same Mutual Aid principles; they tried, for instance, to introduce the principle of ‘compensation’, instead of the *lex talionis*, and, later on, the pardon of offences or a still higher ideal of equality before the human conscience, in lieu of ‘compensation’, according to class-value. But at the same time, another portion of the same individual rebels endeavored to break down the protective institutions of mutual support, with no other intention but to increase their own wealth and their own powers. In this three-cornered contest, between the two classes of revolting individuals and the supporters of the *status quo* lies the real tragedy of history” (ibid.).

So, even the progress of social institutions can be carried out by those who are inspired by values of preservation!

The same values expressed in another form were also predominant in the thoughts of a rather original Russian religious thinker and philosopher of that time, Nickolay Fedorov (1829-1903), who in his “Philosophy of Common Cause” (1906; 1913) posed before science and, even more, before humankind in general, the overall goal of not just preserving lives of all living humans, but also of resurrecting, of reviving all those who had died. In this case we can speak even about over-preservation.

It is worth to mention also the position of one of the most famous Russian scientists of that time, botanist Kliment Timiryazev (1843–1920) who made a lot to propagate Darwinism in Russia. In particular, Timiryazev prepared one of many Russian translations of “Origin of Species”. In an introductory article to his translation he made the following characteristic remark:

“all (...) complex aggregates of mutual relations between living beings, as well as with the environment, Darwin, allegorically and for short, called struggle for existence. It seems that nothing else brings so much harm to his teaching as this metaphor, the use of it he would have been able to avoid, he could foresee the conclusions which would be drawn from it” (Timiryazev 1896).

Later, in the next decade, Timiryazev wrote: “I call the expression ‘struggle for existence’ an unfortunate one [...] It is far from necessary as it becomes evident from the fact that I was able to deliver the whole course of Darwinism (“Historical Method in Biology”) never mentioning the word ‘struggle’.” (Timiryazev 1938: 31).

Incidentally, Ya. Gall notes: “the article by N. G. Chernyshevsky (1888) in which Darwin’s teaching was subjected to sharp criticism due to numerous attempts to use it by the part of Social Darwinians, strongly impressed Timiryazev” (Gall 1976: 17). The ideas of the Russian social democratic thinker, writer Nikolay Chernyshevsky (1828–1889) were extremely influential at that time. And even he, who once called upon Russia “to take up the axe” to fight for better society, disagreed with the ideas of struggle as a constituent of social interrelations (see: Chernyshevsky 1888).

Now I will discuss some, perhaps rather limited, but nevertheless meaningful correlations between the ideas of intraspecies struggle (competition), experimental research (as a source of directed interventions which are carried out under artificially constructed conditions of laboratories), and the ideas of mutual aid (cooperation), observation (as non-interventional activity) and pre-(or con-)servation. It seems possible to maintain that at least some degree of affinity of intuitions and/or intentions underlie each of these sets. The next suggestion claims that the grounds of such an affinity can be found on the level of values.

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I now try to distinguish two different value orientations in the relation of humans to nature, including living nature, and, finally, to human life and human nature. One of these orientations stresses *values of preservation*, be it preservation of life on Earth or preservation of human life, health, rights, dignity, autonomy, etc. It emphasizes the need to preserve, to protect the surrounding order of things which can be easily and irreversibly destroyed by our rash and unreasoned actions. These motives are particularly evident in tackling ecological problems arising in the course of biotechnological intrusions such as the introduction of genetically modified organisms into the environment and the necessity of the protection of the environment.

Certainly, for the sake of preservation, we often need to make a lot of changes; yet all these changes are directed towards the restoration of some impaired (presumably natural) conditions, states, structures, processes and functions.

According to the other value orientation, we can hold our interests and desires to be more important than the imperatives of the preservation of the nature around us. In this case

nature is grasped, first of all, as a raw material to be transformed, more or less radically changed, on the basis of our designs and by means of our technologies in order to achieve our own goals. This means that nature is conceived as something devoid of intrinsic value and significance.

The opposition between these two value systems can be presented as an opposition between, on one side, the previously discussed stands of a naturalist as a (pure) observer of phenomena in the outer and inner worlds, and, on the other side, a researcher as someone who actively intervenes and produces changes in the world.

The first stand was vividly presented by J.W. Goethe who urged that we had to endeavor “to see things as they are”. To be sure, the contemporary philosophy of science disregards such a position of the “pure observer” as overly naïve because it does not take into account the constructive potency of our cognition, and, even more, of our perception. Indeed, strictly speaking, such a stand cannot be termed “pure observation” because it presupposes some directedness of our interests and our values. Nevertheless, alongside its presumed weakness, it has also its own advantages.

According to such a position, we cognize nature in order to grasp its beauty, to admire its perfection, or, in more modern versions, to find ways to save it. In other words, some kind of reverence for nature is presumed: nature has its own *raison d'être* and as such it deserves our respect regardless of our desires and intentions.

For the sake of clarification, it is necessary to notice that research activity can be directed by such naturalistic, non-interventional aspirations. Yet, research activity, as it manifests itself first of all in *experimental* researches, contains this inner intention that today generates innumerable means for (sometimes drastically) changing nature around us as well as our own nature.

The second stand is very often considered as the most adequate expression of the spirit of science as a research activity *par excellence*. One of the most influential proponents of this point of view was K. Marx, particularly in his famous eleventh thesis on Feuerbach: “The philosophers have only interpreted the world, in various ways; the point is to change it” (Marx 1969: 15). In the first of his theses on Feuerbach Marx criticized the naturalistic position (which in this context was synonymous with the so-called “contemplative materialism”) as follows:

“The chief defect of all hitherto existing materialism—that of Feuerbach included—is that the thing, reality, sensuousness are conceived only in the form of object or of contemplation but not as sensuous human activity, practice, not subjectively” (ibid.: 13).

To put it in another way, nature unfolds its truthfulness, its real meaning and its value not in itself, but only as a milieu of change through human activities.

The eleventh thesis can be conceived in two different ways: either the correct interpretation, explanation (and, consequently, understanding) of the world is a consequence, a by-product of our attempts to change the world, or, in general, the very creation of such interpretations is something non-obligatory and even superfluous for human activity. Our interventions can be effective even without any previous interpretation and understanding of phenomena, irrespective of whether such an interpretation would be right or wrong.

It should be noticed here that Marx in his writings after “Theses on Feuerbach”, especially after 1848, was not as radical in his rejection of interpretative and explanatory functions of philosophy and science. Moreover, he developed the notion of “natural-historical approach” in relation to the social world. According to this approach, the historical evolution of social structures and institutions can and must be presented as generated by something like natural laws. After all, precisely these laws determine human activity in its diverse forms, and only by relying on these laws we may succeed in our efforts to change the social world.

Nevertheless, in his eleventh thesis Marx vividly expressed the essence of the position which asserts the change of the world as a primary goal and, consequently, value. According to the interpretation of Marx by P. Berger and T. Luckmann (1967), he made the most essential contribution to sociology of knowledge when in “Economic and Philosophic Manuscripts of 1844” he described interrelations between infrastructure (or basis, *Unterbau*) and superstructure (*Überbau*). Infrastructure in this case is nothing but human activity, whereas superstructure is the world generated by such an activity. It is worth to note that such kinds of cause-effect relations turn out to be valid not just with regard to the realm of human knowledge: the eleventh thesis does not imply such limitations. Therefore, the construction (which may be, but does not have to be, a social one—the same, *mutatis mutandis*, can be said about physical and biological construction as well) of the world can be interpreted as a specific form of changing it. Needless to say, Marx understood the changing of the world as at the same time the changing of humans who transformed the outer world. Yet this transformation of the transformer himself was thought as a mediated transformation.

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As became clear in the twentieth century, especially during its last decades, as well as in the first years of the twenty-first century, the distinction of two value systems concerns not just nature around us, but as well our own, *human* nature. From the beginning of the twentieth century a variety of projects of transforming and improving humans has been successively proposed. (Some reservations seem necessary here: the proclamations were known which demanded the necessity of stopping the degradation of humans, in a definite sense—of preserving or defending the existing genetic pool. Eugenic programs, including sterilization, with such goals were launched, for instance, in the United States.) So, at that time the main direction of interests, discussions and even actions had turned from general biology to specifically human biology.

In the first decades of the twentieth century Russia—inspired by the new regime and substantiated by some interpretations of Marxism—was strongly influenced by the ideas of radically changing existing humans and forming new ones. In the twenties many ideas and even attempts were proposed which combined social and biological ways of improving humans (including, for instance, eugenics, the use of psycho-analysis, attempts to make experiments with crossbreeding humans with apes, and so on)<sup>2</sup>. Some Russian proponents of eugenics indicated the necessity of special programs of “social hygiene” to reach these

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<sup>2</sup> For more details see, for instance, Adams 1990: 153-216; Rossianov 2000: 340-359; Yudin 1993: 83-99; Yudin 2004: 99-110.

goals. Yet in the end of the decade Soviet leaders had decided that it would be ideologically incorrect to use biological means for achieving this goal; only social means were acknowledged as permissible.

It is possible to give different explanations of this turn, but I have no opportunity here to discuss this complex and interesting issue. I only mention that the turn is at least partly explainable by the Russian cultural traditions described earlier. During the first years after the drastic changes experienced by the country in 1917, the sharp rejection of almost all previous traditions was extremely widespread. This meant that all kinds of changes were very much welcomed. However, about 1928, the processes of returning to traditions had started. In this situation, a negative position with regard to radical biological interventions into humans gained a new impulse. Incidentally, for many decades the non-interventional choice was a main obstacle for research in human genetics and attempts to use its possible achievements for therapeutic aims.

At about the same time, ideas of betterment of the population gained more and more influence in Germany. When the Nazis came to power, these ideas culminated in the politics of "racial hygiene"; this politics included the (physical) elimination of various groups of the population which were treated as inferior and as carriers of genetic burden.

Both Germany under the Nazis and the Soviet Union during Stalin's era tried to reach similar goals of forming new humans, but the means which were chosen to attain these goals were totally different. Nevertheless, in any case the issue at stake was not about changing the nature around us, but the nature of humans themselves.

The main accent in Germany was placed on biological measures. In the Soviet Union, on the contrary, there was at least a latent presumption that human biological nature should be preserved even in the course of enormous, radical changes of humans by social means. In other words, humans can be almost infinitely plastic in relation to social, educational influences, however, they are rather rigid with regard to interventions in their biology.

The ideas of change through education and upbringing were extended even to the realm of biology. In "creative Darwinism", which was developed by the grievously famous Soviet agrobiologist Trofim Lysenko (1898-1976) and his followers, intraspecific struggle was refuted for the sake of the inheritance of character traits, acquired in an organism's course of life, in particular, due to some kind of upbringing.

The Russian culture, in general, is not so much inclined to borrow concepts for describing and understanding human capabilities and behavior from biology and to use biology as the pattern for conceiving of social tasks. Even nowadays, when ideas of changing human nature through directed interventions in biological processes and mechanisms are becoming so widespread, it is possible to discern in Russia tendencies to improve humans mainly by social, psychological and pedagogical means.

An example presented below illustrates such tendencies. Some time ago one of my colleagues, a psychologist, told me that she had received an interesting proposal. She had been asked to take part in the preparation of specific training programs for children. The idea was that some wealthy Russians were interested in bringing up their children with particular personality traits.

There are many people in Russia who think that the previous Soviet system of education formed (with only rare exclusions) standardized types of personality closely dependent on

social surroundings in his (her) attitudes and behavior, trying to be indiscernible from others and easily subordinated to those endowed with any kind of power. Others, however, see the profound influence of not so much of Soviet, but the traditional Russian culture in the prevalence of such types of personality.

In any case, we can state that the current system of education in Russia, despite all (even very essential) changes, to a large extent reproduces such personality types. Yet now some of the so called “new Russians”, i.e. those who are very wealthy and very successful in their business, wish to raise their children with different personal traits—strongly goal-directed, oriented toward achievement and heavy struggle for getting essential results in their activity, having well-developed communicative and leader’s abilities. All such traits are necessary for a person to be successful in the future life. Those parents were ready to pay substantial amounts of money for special educational courses which would allow for the development of such traits in their children. Even more, they are ready to provide financial support for the elaboration of psychological programs of training designed to form such young people with traits of personality that have been chosen in advance.

In this case, we can discern striking similarities with aspirations to choose personality traits for future offspring, which are so heavily debated in Western countries nowadays. Both cases represent the manifestation of a particularly technological approach to the human life and human nature. Yet in the latter case interventions into genes are conceived as means for the achieving of the goal. This exemplary case can be treated as characteristic of the main distinctive features of the technological approach.

Firstly, it clearly shows an essentially technological way of not just doing but also grasping things, including such intimate things as the personality traits of one’s own child. This technological way of perceiving and thinking about the world presupposes that if someone has a clearly defined goal (say, some personality traits) and the necessary quantity of resources (first and foremost—money), he (she) can reach this goal by hiring professionals or experts who are able to collect or create all needed means. In our case these means are thoroughly directed interventions into the human personality and the processes of its development.

Even a stronger thesis may be claimed: not just some traits of a child, but the child as such is perceived in similar situations as begotten, as “made” by parents not just in the genetic or usual psychological sense, but also in this technological sense. In other words, the child is treated as a kind of constructed and even re-constructed entity, as someone generated not so much by the nature but mainly by the implementation of a human design.

Secondly, such a technological approach clearly presupposes and even requires thoroughly elaborated systems of measurement through diagnostics. Indeed, in my example it is necessary to have both a preliminary diagnosis of person’s traits that are to be improved as well as the diagnoses of subsequent stages on the way to the desired state. It is evident that these diagnostic systems must be rather complex and multidimensional; they can be created only on the basis of developed categorizations, which allow for the systemization and classification of a huge variety of individual human persons. That means that those parents who want to get their child enhanced, in fact, receive not just their own, unique child but some averaged product of technological manipulations.



Thirdly, this approach is based on the (latent) presumption according to which every human personality can be treated as nothing more than a collection of distinct traits. The possibility of systemic interconnections and interactions of these traits is not seriously taken into account. Nevertheless, due to these interconnections, such an “injection” of desired new traits can cause inconsistencies in the structure of personality with resulting frustrations. Similar consequences can be referred to the systemic organization of links between the personality and the social and cultural milieu in which the personality is included and formed. In other words, it is really possible that a personality, constructed or reconstructed by the psychosocial technologies, would meet quite serious difficulties due to his/her incongruities with prevailing social and cultural norms and values.

Fourthly, the discussed case can be treated as one of the manifestations of the contemporary tendency to understand individual human life, or the individual human being as something that is constructed, in this case—socially constructed. In this view, it is possible to pose such goals as the deliberate re-construction of an entity which is “naturally” constructed in ordinary processes of social interactions, including processes of generating and changing meanings, which are necessary (and often decisive) parts of these interactions.

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So, in our days human beings become to a successively increasing extent not only objects of scientific investigations, but also targets for various technological influences. It seems that current bioethical debates on therapy versus the enhancement of humans reflect, among other things, the opposition of these two sets of values<sup>3</sup>. A therapy in this case can be interpreted as a restoration (or preservation) of the existing human nature, whereas enhancement definitely implies its change.

A specific expression of this opposition can also be found in the realm of ethics of biomedical research. In its more traditional forms ethics of research stressed first of all risks and burdens for the participants. In every particular case, the involvement of humans in biomedical research is a risky endeavor that needs to be scientifically justified and ethically approved. A researcher has an obligation to guarantee a minimal or at least acceptable level of risks for a participant. The latter, in his/her turn, has a right to choose whether to become a participant in the research or not. This choice can be interpreted in the following way: the person in question decides whether to use ordinary, existing, approved methods of therapy, and to consequently preserve the current state of the art, or to promote search for new methods, hence, change.

Yet more modern versions of research ethics tend to stress the benefits which the person can get by participating in research through progress in therapy. And some authors even talk about an obligation of a person to agree to be a participant in research, in other words—an *obligation* to be personally involved in the promotion of change. As John Harris emphasizes: “where risks, dangers or inconvenience of research is minimal, and the research well founded and likely to be for the benefit of oneself or others, then there is some, perhaps very modest, moral obligation to participate”. And: “To fail to contribute to research is

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<sup>3</sup> See, for instance, Kass 2003. See also the document prepared by the US President’s Council on Bioethics: “Distinguishing Therapy and Enhancement. Staff Working Paper”, [www.bioethics.gov](http://www.bioethics.gov).

against the public interest and may harm others”<sup>4</sup>. This argument is built on the premise that one’s participation in research is for the overall welfare of the community, but it is also presupposed that this common benefit can be achieved exactly by the way of some changes imposed on the person or manipulations with data concerning the person.

To conclude this discussion on two distinct value positions in relation to human life it is necessary to draw attention to one problem arising when the values of change become dominant in conceiving human life. In case of changes imposed by us upon the world around us we can turn—manifestly or in a hidden way—to wishes, interests and so on of humans as a reference point. It gives us an opportunity to make judgments on the desirability, permissibility or necessity of our changing influences. In such a situation the human personality, understood as a goal in him/herself, can be presented as “a measure of all things”. This does not mean that in such a way we get the measure which is easily applicable to all situations; nevertheless, we have at least more or less reliable grounds for meaningful discussions of any particular case. In some sense this reference point makes it possible to speak of the unity of humankind as a whole.

Yet quite another situation arises when the issues at stake are the possibilities of changing humans themselves. Up to now, at least, we do not even have a hint of any commonly accepted measure to deal with different designs of technologically generated humans. The very possibility of the continuing of existence of the humankind as the unity in this case does not seem to be certain.

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