

On the Origin of Man: Hominization and Humanization

Leonardo Polo

RECEIVED: November 1, 2016

ACCEPTED: November 20, 2016

DEFINITIVE VERSION: December 30, 2016

Translated by:

Roderrick Esclanda

Leonardo Polo

Institute of Philosophy

resclanda@leonardopoloinstitute.org

&

Alberto I Vargas

CISAV (Querétaro, Mexico)

albertovargas@gmail.com

Translation of an article published in 1994 in the Journal *Medicina y persona* of the Faculty of Medicine of the University of Navarra. First published as the last section of the chapter “Doctrina Social de la Iglesia” in the collective work *Estudios sobre la encíclica “Centesimus Annus”* in 1992.

ABSTRACT: In this article, Leonardo Polo considers certain conclusions regarding the origin of man. The process of hominization that leads to *homo sapiens* cannot simply be equated with the process of adaptation that characterizes the evolution of other animals because it entails using tools by which man adapts his surroundings to himself and thereby reduces the need for man to adapt to his environment. Polo also distinguishes the process of hominization (which involves the somatic dimension of man) from the process of humanization (which involves the psychological-cultural dimension of man and an understanding of the person as being above the species).

KEYWORDS: Leonardo Polo, Evolution, Hominization, Humanization, Origin of Man.

This paper is an attempt, on the part of a philosopher, to understand certain conclusions (which are certainly valid) concerning the origin of man as presented by biologists. If it succeeds in bringing to light the original constitution of the individual and of the relationships that he maintains with his species –without leaving aside any relevant factor–, then perhaps an additional basis, of a theoretical-scientific nature, is furnished that supports from below the elevated plane in which the social doctrine of the Church lays out the requirements that arise from the dignity of the human creature, as well as the difficulties that the comprehension of personal being as a nucleus of social organization runs into.

Here I understand history to be a type of temporality that began with original sin and was preceded by another type of time that it replaces. What biologists usually call evolution happens in this other type of time. Evolution is the constitutive process of living species. The biologist distinguishes species by virtue of the impossibility of a genetic cross: a species is a group of inter-fertile living beings.

It seems that the emergence of a new species usually takes place through geographic isolation. Biologists recognize the existence of three principal laws in this type of evolution: diversification, adaptation, and selection. Three notions that are closely related with each other.

If a new form of life appears and if it is successful, then it frequently diversifies according to the ecological niches that it expands into (this is usually called radiation). The group that expands into different climatic environments adapts, something which implies diversification if the niches are different. Over time, those that live in one ecological niche and those that live in another cease being inter-fertile: accumulated mutations end up preventing crossbreeding between individuals of different groups¹. In the genetic line that leads to man these laws fail. When it comes to hominization, the specification and determination of characteristics do not appear to have taken place in the way described. First of all, in the first bipedal fossil discovered: *australopithecus* (appeared 4 million years ago). It is sufficiently clear that there is barely any radiation; that it did not specialize, because it lived

¹ Selection means that the genotypes that are most suitable to the niche are the ones that survive, and this has to do with the determination of genetic traits. Selection and adaptation reinforce genetic incommunicability; they are, therefore, specifiers. In general terms, the approach is clear, even though there are serious problems (so-called potential evolution) that are not yet solved.

in the same ecological niches for 3 million years. Subsequent species follow a continuous evolutionary line from the morphological point of view: from *homo habilis* (2.5 to 1.6 million years ago) to *homo sapiens*, passing through *erectus* (1.6 million to 150,000 years ago, when *sapiens* appears). From *homo habilis* to ourselves a slow specialization and growth of the brain is observed, which coincides in time with the ever more sophisticated production of stone tools.

The process of humanization is not that of hominization. Hominization refers to what is somatic, humanization to what is psychological-cultural.

First of all, two characteristics of *sapiens* appear neither in *habilis*, nor in *erectus*: first, technological progress and second, a reflexive idea by virtue of which he practices burials and exercises medicine.

There is no problem with accepting these three speciations, which is equivalent to saying that *homo sapiens* is the final step from the perspective of hominization. But if we accept geographic isolation (accumulation and selection of mutations by means of adaptation to the environment) as the only kind of speciation, then the somatic organization of *sapiens* would proceed from that of the previous ones following this evolutionary modality: beings from the same branch start acquiring greater brain capacity (which is usually called free neurons) through mutation and determination and, by virtue of this, begin learning, first slowly and then more quickly. However, this does not yet explain humanization, which is evident in the aforementioned characteristics, but rather leads to the reduction of humanization to hominization².

It is characteristic of *habilis*, of *erectus*, and of *sapiens* that corporeal change is located in the brain; or what amounts to the same, in these three biological types adaptation becomes increasingly less important: instead of adaptation to the environment, increase in brain size appears, which makes the despecialization of the rest of the body

² Nevertheless, we now know with certainty that the adaptive process is not the only mode of speciation. It has been proven that for there to be inter-fertility it is not enough to have the same genetic makeup, because if the chromosomes are organized in a different way, even though the genetic makeup is the same, there is no common descendant. That is, not only are there mutations of genes, but also mutations of chromosomes; structural variations also produce speciation. Perhaps this second evolutionary modality might be better suited for understanding the hominization that culminates in *homo sapiens*, and better for distinguishing humanization from hominization. Furthermore, it better agrees with the monogenetic thesis.

possible. And this means that the relationship of adaptation to the environment is inverted. For this reason, as I was saying, the three laws of adaptive evolution do not come into play in *homo*, because, strictly speaking, the genus *homo* adapts the surroundings to itself, and not the other way around: it does not adapt to the environment. This is possible because of his creative capacity for instruments. The two things are closely linked.

From the evolutionary point of view it involves a being in which the number of free neurons has increased, and the spontaneous unfolding of instinct has decreased, and at the same time its body has become non-specific, it has been potentialized. The hand is not the result of an evolutionary process that moves forward; it is not a determination, but rather an indetermination; but the hand is instrumental, and with it *homo* takes advantage of something that already appears in *australopithecus*, that is, being bipedal.

The human organism is predisposed to making, and it can therefore be said that what unities us with *erectus* and with *habilis* is that they are *homo faber*, and so are we: *homo sapiens* is also *faber*. This is not a more or less plausible or rhetorical explanation, but rather something that helps us understand what it is in human morphology that is irreducible to all other morphologies: *homo* becomes a species in a very peculiar way, through modifications concerning increase in brain size; to this same extent there is no morphological adaptation to the environment.

If man did not work, he would have to adapt, but his evolutionary path is no longer by adaptation. For this reason, he is not biologically competitive³.

It can, therefore, be concluded that man is the end point of evolution with regard to everything that concerns hominization. Although not even this, because evolution is not homogeneous from the moment that evolutionary strategy changes character; this change of character

³ Most likely, the explanation for why *homo habilis* and *homo erectus* became extinct is precisely that the changes in the brain and their manufacturing ability were not enough to compete with adaptation: the strategy of modifying the surroundings through acting on them competed with the strategy of adaptation, and the latter won. On the other hand, it is clear that *homo sapiens* did not become extinct for this reason; he can become extinct for the opposite reason: by making his surroundings uninhabitable. Man thus has no niche, but rather ecological problems, which is something completely different.

needs explanation. How is it possible that in all the major “phyla” evolution works through adaptation and in man's case it is the other way around? It would be necessary to study other evolutionary modalities other than genetic mutation (I mentioned the organization of genes in the chromosomes), because with this, one cannot understand the appearance of the human body, which is evolutionarily antithetical to other living beings: it is not only different, but contrary. For some authors, an unbridgeable gap opens up between what is biological and what is human-cultural. It is not exactly like this. In addition to certain aspects of culture that have to be added to those I have already pointed out, the productive activity of man would not be viable if he were not *faber*. For this reason, it is mistaken to set the biological against the technical. Man is made for working, because if he does not work, he becomes extinct, because in him evolution has not followed any type of adaptive strategy.

Now another question arises, and it is this: hominization, that is, evolution's focus on brain development, suggests a continuity between *homo habilis* and *homo sapiens*. But another dimension of *homo sapiens* is thereby omitted: simply, intellectual knowledge, which is an obvious characteristic in him.

The key to the question at hand lies in identifying specifically human (not hominid) manifestations. Now, this consists, foremost, in thought. Now, thought is a dimension of life of such density that it constitutes an exception to the evolutionary approach, an inexplicable anomaly, an irreducible novelty: if there is intelligence, then intelligence is of each human being. Therefore, humanization is different from hominization, because the latter is specific and the former is not. Undoubtedly, human specification (as we have already seen) is quite a remarkable vital process, because it is not an adaptation to the environment, but rather a de-adaptation. But the appearance of intelligence entails a biologically unsuspected change: the superiority of the individual over the species. The human individual is neither generic nor specific, but rather person: there is no intelligence of the species, there is no collective intelligence; the intelligence is characterized simply by being proper of each one. Man is a “meta-specific” being: his action does not exactly depend on the biological capacity of his species, but rather on that which is peculiar to each one. For this reason, it is not enough to say that he is *faber*, because being *sapiens* elevates man above the potentialities of the biological species. Intelligence is not a product of evolution.

The manufacturing capacities of *habilis*, and even of many *sapiens*, are specific and are exercised through the hands, etc. But intelligence is meta-specific and evolution as a theory is not relevant in this regard.

The dominion of intelligence over action means meta-specification. If man is *sapiens*, then he is a person, and this is seen in the artistic dimension of what he does. When he does not work exclusively on the basis of utility, art appears (utility is a biological value that corresponds to making, in accordance with the proposed interpretation concerning human specification insofar as distinct from adaptation). Now, before the appearance of *sapiens*, one does not find any instrument with the purpose of artistic manifestation⁴.

According to its relationship to practice, intelligence is described as a capacity to open up a pause between motivation and action, a pause that is used in planning. By suspending action and by facing something ideal, the living being thinks. One thing is the intra-species aptitude to cobble together a tool in the process of doing so, and another, is planning a tool; in the first case it is a question of natural potentiality (in particular, the imagination). Intelligence entails despecialization from the point of view of the natural tendencies, because it is itself the suspension of every natural tendency and subordinates the tending to knowing.

The goal of evolution is the species (all tigers, for example, behave so that the species not be extinguished). *Habilis* also functions in favor of the species, when acting with technical strategies, since if these strategies fail, the species disappears. But when *sapiens* arises, it can no longer be said that the individual is finalized by the species, because the individual is the only one capable of thinking (the species does not think). Who thinks? I, you, he: the semantics of I, you, he, is obvious (it is absurd to say, *ça pense*).

This, however, gives rise to a large number of problems (fundamental problems that have to do with man's way of being). The relationship of man with the universe is not homeostatic, because he is "super-skillful", an astounding technocrat. For this reason, the relationship between technology and the universe is problematic: the ecological problem, for example, makes it clear that success is not guaranteed, and that it is necessary to refer technical activity to the fundamental questions.

⁴ The idea of the soul as it is often depicted (as a double, a ghost, etc.) is linked to survival, and this survival is also connected to the individual: there is no soul of the species. The soul is of each one, and for this reason each one is buried.

Furthermore, since we are technical beings and also thinkers, the relationship between the individual and the species is no less problematic (something that does not happen with any animal). The being that is superior to her species is called person. Therefore, the relationship of the human individual with the human species is an authentic problem that can only be dealt with personally (this justifies, for now, the philosophy of culture and ethics).

Man is a critical being. This critical character is his greatness. Every human being is referred to the species, to what dwells within him; but he is not completely finalized by the species, because he is person. In sum, the description of man that is obtained from the preceding observations is this: man is the being that does not exhaust his species⁵.

Now, in order to gauge to what extent historical time contains the problem indicated, it is enough to recall slavery. Slavery is the product of some cultures for which only a few were *sapiens*, and the others, *habilis*. Bad solution to the problem of the relationship of the person with the species. Is it not a current problem to achieve the recognition of any human being as *sapiens* without isolating him from his work activities, and to consider each one in his entire mode of being⁶? Another question is to what extent the sciences can contribute to solving the problem.

The sciences, which have been disconnected from philosophy since Galileo, contain a good deal of knowledge about man, but if they are left by themselves, they become dehumanized: they lose their proper meaning, which depends entirely on their connection with the meaning of human existence. It is, for this reason, necessary to uphold the ideal of interdisciplinarity.

⁵ Thomas Aquinas holds that angels are personal beings that exhaust their species. The proposed description of man makes it possible to understand him as a living being whose hierarchical level is intermediate between that of the animal and that of the angelic creature. Hence it follows that the problematic of the angel refers only to the relationship with its Creator; that of man, in contrast, adds to this relationship the problem of the relationship with his fellow men. For this reason, the primary norm of human life is to love God above all things and to love one's neighbor as oneself (this "oneself" is a clear allusion to personal being).

⁶ This does not imply that the interpretation of history as the succession of relationships of domination is correct; rather, what has been said frames these observations within a better grounded understanding. Moreover, discrimination takes place more frequently without domination, in the form of marginalization and indifference: contempt, in the end.

It is not just that the sensible, emotive human world has a right to be recognized, nor simply that what is technical is subject to ethics. There is something else: the task of relating scientific findings to the fundamental questions belongs to interdisciplinarity. I have proposed an example of this: biology studies evolution, but the state of the question needs to be clarified: biology cannot do so, because there is something in *sapiens* that, at the very least, does not come from evolution.

It is necessary to widen the area of interests, because otherwise science becomes de-logified in the deepest sense; an isolated, specialized science lacks *logos*, because its insertion in the human being –who is its author– becomes impossible. And when the isolated science seeks to rule over man, it disrupts and disintegrates him. If this is not taken into account, the distinction of *sapiens* from *habilis* is interpreted as a division that is internal to the species itself, which inevitably leads to discriminating against a part of the members of humanity, who, as mere *habilis*, are treated without regard to their dignity as persons.

I insist. Man poses a problem. And he poses it because there is a real distinction between his personal being and his essence (something which has been known since Thomas Aquinas): the intelligent one is each one, and the species is not a subject. Because it is man who makes the sciences, he cannot be directed by them; if he attempts this, he is reduced to *homo habilis*, and he constructs a merely objective knowledge that is rooted in a false hypostasis, to which his pre-eminence gives way⁷.

To summarize. From the somatic point of view, *homo sapiens* is preceded by two specific levels, which are *homo habilis* and *homo erectus* (perhaps also by a variant of this called archaic *homo sapiens*). According to the data that we have, the tools used by *homo habilis* can be explained by an increase in brain capacity, which makes an improvement of the imagination possible. Although it seems that *habilis* carried out secondary techniques (making tools with tools), all that is needed for this is imaginative association and a certain use of conditional reasoning (which can also be seen in primates) without the need for intellectual abstraction.

⁷ Understanding the relationships of domination from the political point of view is to some extent superficial when compared with the intense domination of science over man –that is, over *homo sapiens* itself who develops it–, and which contradicts his personal condition insofar as he entrusts the guidance of his life to science. This is submitting oneself to a falsely polarized determination, as I have stated.

In man, second level technology is of a different kind. First of all, it has to do with the development of language. Two levels of language are, in turn, usually considered: to the first level belong the emission of meaningful signs of a specific type (emitted in accordance with some learning within the species). The closest apes to man seem to use a number of signs linked to giving notice of the proximity of danger, of prey, etc. This mode of expression is understood and learned by others, but it is not language in the strict sense. Aristotle calls it *diálektos*.

The second level language, the one that we speak (the *logos*) carries with it a meaning such that it makes possible the almost complete modification of some previous behavior. When heard, the messages transmitted through human language trigger new behaviors; not stereotyped behaviors, but rather ones endowed with novelty precisely by virtue of the significative value of the message. Thus the “structure” of the order appears, that is, the double reference of commanding and obeying, etc. Of course, certain ways of directing would be more proper of a *homo habilis*; for example, when it is assumed that once the order is given, it is fulfilled without any response (which means that the emitter of the order does not return to them, modifying it, in accordance with the information inherent to the manner of fulfilling it). The unilateral order fails to take advantage of human language: it is non-reflexive (it does not reach the level of conscience). When one seeks to exercise an authoritative order, a level of language formally equivalent to *dialektos* is used.

The manager who adopts a unilateral attitude considers his subordinates on a functional level that is inferior to what is proper to *homo sapiens*. And we almost always function below our capabilities, which depend on the use of dialogue. Logic arises as the art of dialogue. Dialogue is not the same as communication. Yes, it can be said that *homo habilis* is *communicans*; but human language serves not only for speaking so that others might know, but for men to add contrary arguments to an argument. For this, it is necessary to establish rules. Language is used in argument (in a second level usage). In dialogue the knowledge of each one is intertwined in such a way that what is said by one is the assumption of what the other says.

Of course, the appearance of second level language cannot be explained from the first level, because first order language is the language of the species, and, in contrast, the second level language is inter-subjective, which requires conscience. Only thus is its *raison d'être* found. The person's standing out over the somatic development of its species

is decisive. Second level technology and second level language are correlative.

An action that arises from knowledge and a knowledge that suspends action can only be human. For the animal, knowing is embedded in its natural dynamic, it is nothing more than a phase of its behavior. But rational knowledge is not a phase, but rather a suspension of conduct. By virtue of this suspension a new behavior arises. If we unite the possibility of an instrument of instruments with the appearance of a second order language, then it can be concluded that there is something non-evolutionary in *homo sapiens* that corresponds to a different origin (ultimately, creation). Even without delving into ontological questions, the break in the passage from the species to the individual is intense and clear. Both second level language as well as planning are proper of a being that maintains intersubjective relationships. And intersubjective relationships are more than specific. It can be said that the animal behaves and man has conduct: conduct brings with it a reflexive condition. Freedom is not a characteristic of the species either, but rather of each human being.

Homo sapiens invents projects and makes decisions. Man decides because he is a being capable of distancing the end through his project and, therefore, of dealing with means. Aristotle argues that man is the only being for whom the notion of means has a formal value. The one who strictly speaking captures this notion is man: the animal uses means, but does not realize that they are means. Capturing the notion of means implies the capacity of knowing the end. Man is a being capable of committing himself, of fulfilling his word, because the project belongs to each one.

If man is “despecialized”, if he does not have to adapt to the environment, then he creates a world. As Heidegger says, man is a being in the world, man has world, not just habitat or environment. The foregoing is obvious: what can you find in a city? Roads, traffic lights, houses, electric lighting, etc. Man has replaced nature. In any case, man must adapt to a world made by himself. Being a citizen is characteristic of *homo sapiens*. A city is a plexus of means. A human instrument is a referring to another. The hammer refers to the nail: the being of the hammer is in the reference to another instrument. Therefore, the world is composed of medial references: the hammer is for nailing, the nail for assembling, and by assembling one makes a table, which is useful for having something to put things on and for having them within

reach, etc. The very being of the instrument is constituted in the reference, just like language is constituted as such in dialogue. The instrumental world, inasmuch as it is a complex of references, is possible because man has mind. This is the true human meaning of second level technology (a car has about 4,500 pieces, all of them connected). Thus, the hammer is a second level instrument not only because it was made by another instrument, but because it is exclusively an instrument for another instrument. Without a plexus –if some things did not refer to others– the economy would be impossible: the economics of a city requires interconnection. No one buys something that cannot be related to another that is already possessed; it is useless. Without machines, why oil? From the plexus, interest for trade opens up, and then a system of allocation is made possible. Selling and buying are due to man constructing plexuses⁸.

Starting from the idea of the human world, several themes can still be discovered. In the first place, it is a non-stable world, because, strictly speaking, what man makes are not things, but references, which, in turn, do not exist if they are not imbued with actions. The human world is active. That is why the word “utensil” is fitting: the utensil is in the use; the hammer is in the hammering, or rather the act of the hammer is inseparable from its use. Now, this active character presents dangers. No animal acts against its species; its behavior is finalized by it. In contrast, the human individual constructs a world without this world being reduced to what his biological specificity is capable of. However, the preeminence of individuals over the species is often impeded precisely by the world that has been constituted. It is for this reason that the organization of this world matters so much: man is often times trapped by it. The man trapped by the world is the one who fulfills roles, functions, in the plexus: the one who is satisfied with what has already been invented and brings about nothing new. In any case, the human world exists only if it is activated; and the activation is carried out by human action: if human action pulls back from it, if separates from the plexus, then the world ceases to be. Man has to exercise his action with respect to the plexus in order to give it existence. But if man considers himself only from this point of view, he gets trapped. Thus, the first thing that the organization of the human world

⁸ Accordingly, the market is not primary, but rather the organization of the deepest condition of the being-among-themselves of human products.

has to ensure is that the individual keep his personal freedom with respect to the world, in such a way that he can apply it anew.

In this perspective, evolution is replaced by history. Man is a historical being because the human world is subject to change. History (not evolution) consists of these changes.

The significance of history, its meaning –destiny, or whatever it might be called–, is the strengthening of the dignity of the person. Evolution is nothing more than a preparation for the appearance of the spiritual being. Through its somatic despecialization, the spiritual being produces culture. The battle is now no longer waged in the competition with other species, since this problem has already been resolved: no lion can hold its own against a machine gun. Nevertheless, man can succumb to degradation of self, if the plexus that he has built reduces him to the condition of a mere *homo faber*. Much is said about hunger in the world, but countries in which people can get their fill can fall into an omission that is as grave as that which hunger brings with it: the lack of understanding the world in which one lives. It is true that in other epochs man found himself better integrated in his world (or at least it is supposed that he was); also, nationalisms harbor nostalgia for a smaller and more harmonious world. Nevertheless, this does not answer the question, since what has to be organized is precisely the world in which we live, with the immense breadth and complication that we have conferred upon it, and which offers possibilities that were unattainable by cultures of other epochs.

Unless man's destiny is the catastrophe due to the increasing and ungovernable complexity of his world (and this possibility is open), it is clear that other possibilities are also opening up today. Throughout history, humanity has endured great calamities (the plague in the 14th century, for example); today one perceives the risk of a spectacular dehumanization. Nevertheless, the positive path also clearly points out the way.

We thus arrive at another of one of the great dimensions of the human being: social organization. The construction of medial plexuses is accompanied by the organization of institutions. The first of these is the family. The only animal with family is *homo sapiens*. The family means the following: in the first place, a lasting bond, one that is not reduced to mating, in which the man is established from the outset as provider and the woman as direct caregiver of the children. In the sec-

ond place, and related with premature birth –which is a properly human characteristic (every man is systematic)– the family also means education of the children. The newborn is not viable without protection that has to be prolonged for many years. Without generation, the species becomes extinct; but human generation gives rise to an institution. *Homo habilis* surely had the practice of sharing food in common. In contrast, *sapiens* turns to privatization. And privatization is not an ascription to the individual, but rather, first of all, to the institution of the family. It goes without saying that the peculiar human sexual activity is not like that of animals, and gives rise to personal amorous relationships whose consistent scope is monogamy. Likewise, except on festive occasions when meals are celebrated in common, eating behavior takes place at home.

As I said, all this contains a remarkable meaning for premature human birth. The embryogenesis of other species manifests a greater urgency; in man it requires more time and, also, in order for him to be viable, it is not enough for him to simply be born: a further coordination of his free neurons that lasts for about 25 years is need, and is obtained through increased learning. The incorporation of new generations through education is the condition without which a positive vector in the history of humanity is in one way or another closed. The human being has many potentialities through which it passes without pausing; he is, so to speak, much more actualizable than what is really actualized. In short, educating consists in activating possibilities.

I will conclude these general observations by laying down some theses:

1) Man is a personal, intelligent, free being, who inaugurates historical temporality, which is something that replaces the time of biological evolution.

2) Evolution is made up of processes of speciation of various kinds. In history, different human worlds, institutions, and modes of production that can appropriately be called cultures arise.

3) Cultures are determined by the problem of the relationship of the personal human being with her species; they are nothing but different ways of addressing this problem, which, although they have not been able to completely resolve it, have contributed values that call for a more attentive discernment.

4) Although thought is proper to each one, universality is also characteristic of him. This allows each person to relate with others, and thus gives the species a social status. More than specific, man is social.

5) The problem mentioned in the third thesis is described like this: the human person is not finalized by her species, but neither does she exhaust it. Since the human species is eminently potential, the unfolding and the actualization of these potentialities belongs to personal initiative. The fruit of this effort over historical time are the different cultural values.

6) The failure to solve the aforementioned problem happens when human persons are reduced to the condition of mere individuals of the species, with the consequent relationships of illegitimate domination. This domination undermines the dignity of the personal being, and inhibits her ability to contribute. Slavery, castes, marginalization (especially, that of women), the ideology that interprets man as *Gattungswesen*, and the one that advocates the success of the isolated individual, as well as the present day forms of cultural and economic racism, are clear manifestations of this error, which leads history into dead ends.

7) The way out is contained in the resolute defense of personal dignity, in the openness of dialogue in which this dignity is reflected, and in the construction of an international order that establishes respect for different cultural values and promotes the development of all men. This universal development is, above all, of a moral nature and fosters the recognition of human authorship in the realm of work.

8) The opportunities that our times offer for moving toward the future, following this path, are abundant and must not be wasted. As I pointed out elsewhere, support must be given not only to the family, but also to business and to the university in their task of organizing this more human world.

9) The animating task of the Church is indispensable for this, since, as a society, she establishes the strongest of interpersonal bonds: the so-called "communion of saints". For this reason, the social doctrine of the Church is not only warranted, but is also necessary so that man does not lose sight of his dignity.