Introduction

This essay attempts to generalize a framework originally found in Pesch (1925) to analyze the relationship of the social sciences with ethics and the philosophy of the human person. This framework is consistent with the Aristotelian-Thomistic tradition and its main points are hardly new. However, by applying it systematically to the modern social sciences we establish the positive and normative character of such sciences, their relationships with ethics, and derive two principles of non-contradiction and increased knowledge which can be used to preserve the scientific character of positive and normative social science and to ensure the harmonious development of knowledge about the human person.

The "Science" of Social Science

The traditional definition of science, "cognitio certa per causas" (certain knowledge by causes), differs from the practice of the modern social sciences in two notable ways. First, most of the knowledge of the social sciences is merely probable, not certain. Secondly, most social sciences study aspects of human voluntary action. Human voluntary action is by definition free. Since free causes do not need to act when all the necessary conditions for such action are present (McCormick, 1940), it follows that social science can only obtain systematic knowledge on antecedents of an effect, other than the cause. Historically, most social sciences have produced statements about a) conditions (defined as necessary circumstances for voluntary action) and b) occasions (defined as contingent circumstances which favor the operation of the free cause (McCormick, 1940).

For instance, take a foundation of microeconomics: the law of demand. The law of demand simply states that in a world of perfect information a reduction in the price of a tradable commodity will increase the quantity of the commodity demanded, other factors held constant. It is a statement of how an occasion (the reduction in price while other factors are held constant) favors the operation of the free cause (persons deciding) to produce an effect (demand more of the commodity), provided that a condition (perfect information) is
Since free causes do not have to act necessarily, such scientific "laws" are statements of empirical regularities, stating simply that if a favorable occasion occurs, in an environment where certain conditions are present, a number of persons will probably decide to take the specified action.

**Formal and Material Objects**

To analyze the structure of the social sciences as they exist today, it is important to understand that humans can only know what is immaterial. Description of concrete things or persons is possible, but one cannot define the concrete. Science is built on well-defined abstractions of realities present in the concrete objects under study.

Technically, since science studies relationships among the abstract qualities of concrete persons or things, we can say that science only studies the nature of persons or things and not the concrete persons or things themselves.

On the other hand, it would be going too far to maintain that science is simply a construction of fictional concepts, since the abstract qualities studied are really present in the concrete objects under study, in an embodied manner.

Therefore, one can ask two basic questions of every science.

a. What are the concrete objects it studies?

b. What abstraction does the science employ when studying the concrete objects?

The answer to the first question is known as the material object, while the formal object responds to the second question.

All social sciences, as the term is understood today, have as their material object concrete human persons, their relationships, communities and institutions. Each social science considers a different aspect of the nature of such concrete realities. For instance, psychology considers the human person as a being capable of inner experience, economics studies the human person as a being who actively provides and satisfies material needs and wants, sociology studies the human person as a social being, philosophy of man (including natural ethics) studies the person as a being of intelligence, will, and body; and so on.

Note that social sciences are autonomous from each other to the degree that their formal objects are different (consideration of the human person under a different aspect).

**All Social Sciences Have Two Branches**

It is self-evident that the human person always has some potentiality which may be actualized. This fact allows the consideration of the human person as an actual being (what partially or totally developed characteristics exist today), and as a potential being (what partially or totally non-developed characteristics exist today). The potentiality of human nature is the foundation of the normative and practical character of the social sciences.

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Because human nature can be further actualized, it follows that one can define a natural concept of human welfare (i.e., the actualization of potentialities). Each social science studies the same concrete human welfare under a different formal aspect. To illustrate, economics identifies actions which promote human welfare as considered from the point of view of fulfilling material needs and wants (in modern terms, economics identifies actions to promote economic growth and a more equitable distribution of income).

Therefore, each social science can establish which actions promote or interfere with human welfare, as considered by the particular formal aspect of the science. The determination of actions which promote or interfere with human welfare is completely scientific and constitutes the normative side of each social science.

In summary, all social sciences can be subdivided in two branches: consideration of the human person as an actual being (positive), and consideration of the human person as potential being (normative), under the formal object of the particular social science.

Historically, there has been some confusion about the scientific character of normative social science. In particular, objections allege that normative social science is not a science because a) the concept of welfare is wholly subjective, or b) because even if welfare is objective it is impossible to reach consensus on it, or c) because it is never scientific to formulate ethical statements. At the core of each objection lies a fundamental misconception of the nature and relationships among social sciences.

First, consider whether the concept of human welfare is wholly subjective. If it was, one could maintain on equally reasonable grounds that fulfilling a human potentiality is the same as reducing a previous actuality to a potential state. Otherwise, one could use the objective knowledge of human potentialities and actualities to establish an objective concept of welfare. But in reality, the objective human nature of children, for example, tells us that promoting their intellectual learning is more reasonable than keeping them in ignorance, that helping them understand social rights and obligations is preferable to leaving them to fend for themselves without any guidance. The reasons which make one option preferable to the other are based on objective scientific knowledge which can be used to distinguish what promotes and what hinders the development of the child. On that basis, child development experts can make scientific normative statements like "as far as child development is concerned (the formal object of their discipline), the promotion of social and intellectual growth is a good."

The second objection accepts the obvious evidence that welfare is objective because all humans share in the same nature, but maintains that consensus is a practical impossibility. If by consensus is meant perfect agreement on every nuance of the concept of welfare, then the objection is correct since fallen human nature is prone to error and someone is bound to
maintain that some damaging action is a good. If, however, we only require a majority consensus on most major issues, then there is empirical evidence that consensus has in fact been reached.

For example, most economists hold that labor discrimination, a wide and unequal distribution of income, high inflation, large unemployment and other economic situations are economic evils; while growth, access to employment, and high productivity are economic goods. Most psychologists hold that compulsive behavior, high levels of anxiety and depression, and paralyzing shyness are psychological evils, while rational control of one's actions, age-appropriate expression of emotions, and a reasonable assertiveness are psychological goods. In every social science one can find a number of situations deemed by the science as goods or evils on the scientific grounds that they promote or damage human nature from the perspective of the social discipline. Partial consensus on normative science is a historical fact.

The third objection was very much in use in economics during the 1930s (Robbins, 1935) and continues to be propagated in introductory textbooks today (McEarchern, 1994). It simply states that all labeling of a policy as good or evil is an ethical statement and that economics (and other social sciences) are not in the ethical business. No one contests that modern social science is not applied ethics, the flaw in the argument lies in its understanding of the nature of good and evil only in an unqualified sense. Ethics tells us what is good and evil for human nature without qualification, but each social discipline may make statements about what is good and evil for human nature as considered by the formal object of the discipline. Such practice gives rise to economic goods and evils, psychological goods and evils, sociological goods and evils and so on.

While it is true that economics cannot say that massive unemployment is an unqualified evil (a moral evil) it can certainly state that it damages the economy (an economic evil). Similarly psychology has no business labeling acting out behavior an unqualified evil (moral evil) but it can certainly say that it is psychologically damaging (a psychological evil). To make such normative statements is entirely scientific and fulfills a major goal of social science: to improve the social order.

The proliferation of classes of goodness calls for the establishment of order relationships between the different kinds of goods and evils. To establish such order it is necessary to examine the relationships among the social sciences.

*The Highest Human Science*

Note that considering the person as a being with intelligence, will and body is equivalent to studying the essence of human personhood and represents the highest possible level of abstraction which allows consideration of the human person. The science which studies the nature of human personhood in itself has, of course, two aspects: positive and normative. The
normative side is known as natural ethics. Natural in this context means that it does not use information from Revelation. The positive side may be called philosophy of the human person.

Since for the moderns, philosophy and ethics are not social sciences, I will refer to the group formed by all the social sciences (economics, political science, psychology, sociology, etc.) plus philosophy of the human person and ethics as human sciences.

**Existence of Partial Ordering**

Since philosophy of the human person and ethics study the same human nature studied by the remaining human sciences at a higher level of abstraction, it follows that all the formal objects of the remaining human sciences (person as social being, person as being capable of inner experience, etc.) are comprehended within the consideration of human personhood. We are social beings (beings capable of inner experience, etc.) because we are persons. This objective relationship between the formal object of philosophy of the human person and ethics, and the formal objects of all social sciences establishes a hierarchical dependence of all social sciences towards the philosophy of man and ethics.

**The Question of Total Ordering**

Can one have a complete ordering of human sciences according to their formal object? The answer to this question is no.

The fact that human sciences consider the human person under different aspects would allow a complete ordering if all aspects were obtained using the same principle of division. However, human sciences have been formed using different principles of division, for instance "person as a being capable of inner experience" is neither wholly contained in nor does it wholly contain "person as a social being." Therefore, it is impossible to structure a complete ordering of the relationships among the social science disciplines. Here and there disciplines and subdisciplines may be ordered, but it is impossible to completely order the modern social sciences without changing their character.

**Ordering of Positive Statements**

The relationships of order among the human sciences generate relationships of order among the positive and normative statements which these sciences produce.

For the moment consider the positive side of each human science. Since there exists a relationship between the philosophy of man and the positive branch of each social science, it must be the case that individual findings from each social science do not contradict the findings of the philosophy of man. If a contradiction occurs, it must be apparent since we are considering the same human nature under two different levels of abstraction. Therefore the partial ordering of the social sciences and the unity of truth demand a principle

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of non-contradiction of positive statements: "whatever is affirmed by the philosophy of man cannot be denied in the findings of the lower human sciences."

On the other hand, each social science must complement the overall knowledge of human nature by revealing truths which were not evident at a higher level of abstraction. The consideration of the human person at lower levels of abstraction (say as social being, or as provider for material needs and wants, etc.) results in findings which could have never been obtained by the consideration of human person as person. This is the principle of increased knowledge for positive statements: "lower level human sciences can scientifically establish many findings about human nature unknown to the philosophy of man."

**Ordering of Normative Statements**

Similarly, one can derive a relationship of order for the applicability of normative statements stemming from the partial ordering which exists among the social sciences.

On the one hand, what ethics prescribes to be avoided (something which damages the person as person) the other human sciences cannot prescribe that it should be done. This is the case because what is not good for the human person as person should not be done even if it is an economic, social or psychological good. The reason is simple. Since in reality actions taken or actions avoided impact real concrete persons and not particular abstract aspects of such persons, one can be sure that a moral evil will harm the concrete person even if it benefits some partial aspect of such person when considered abstractly.

If one forgets that actions affect concrete persons and not just their abstract qualities, one is likely to recommend policies which in theory help some abstract personal aspect, but in practice damage concrete persons and communities. Therefore, on scientific grounds, a scientist cannot recommend unethical policies of any sort. After all concrete policies affect concrete persons, and unethical policies always damage concrete persons (that is a direct application of precisely why they are incompatible with the essence of personhood).

In addition, scientists should not advocate for unethical policies on personal grounds, since advocating what is unethical is an unethical act which will damage the concrete personhood of the researcher.

In summary the principle of no contradiction for normative statements states that "all policies recommended by social science must be ethical."

On the other hand, while ethics can specify what not to do, it cannot specify how to act in every circumstance. This is a result of the high level of abstraction under which it considers the human person. Therefore, it is the role of the social sciences which consider the human person at a lower level of abstraction to recommend policies to promote some aspect of human
welfare. This is the principle of increased knowledge for normative statements: "lower human sciences can establish many valid normative statements unknown to natural ethics."

Since there does not exist a complete ordering of social sciences, there is no complete set of relationships among the normative statements derived by social science disciplines. Nevertheless, the concrete reality of the persons upon which the policy will have its effects demand that responsible decision-makers attempt to investigate how a policy will impact concrete persons and communities by considering the effects of such policy under different formal objects. The concrete reality of the persons also demands that researchers qualify their normative statements to make evident the limited conception of human welfare considered by each social science.

For instance, a favored policy of labor economics regarding improved access to the labor market by mothers of children aged six and under is to promote day care. Promotion of day care advances the welfare of persons and communities considered only as providers and recipients of work services, but how will it affect the welfare of persons as beings who form intimate communities of love (family perspective), or as beings who develop through stages needing personal relationships (child development), or as beings endowed with political rights to choose whether to work at home or in the market (political perspective)? The decision-maker or the policy advocate must understand these possible effects before implementing or recommending such policy, since a real policy will impact the person in all her aspects.

**Violations of the Principles of Non-contradiction and Increased Knowledge in the Normative Sphere**

It is a historical fact that scientists often violate the principle of non-contradiction for normative statements and recommend unethical policies. To see why this is radically unscientific one must examine what a scientist is really saying when he or she recommends an unethical policy.

First, scientists can legitimately inform that an unethical policy benefits some abstract quality of the human person; however when a scientist advocates that the policy should be enacted (and affect concrete persons), he or she is taking one of two positions: either a) the unqualified welfare of the human person has been equated with an abstract and partial aspect of human welfare, or b) it is assumed that the proposed policy has no deleterious effects to any other aspect of the human person.

In the first case, the scientist has made a natural ethics out of his social discipline. For example, once one equates the total welfare of the human person considered as person with the welfare of the human person considered as a being capable of providing for material needs and wants, what one is saying is that the person is defined by its capability of providing for material needs and wants alone. In the past this has happened by equating the human person with Homo economicus. Such attempt is unscientific because it is a
scientific fact that the human person has other dimensions. Scientists who engage in such unscientific practices should be gently questioned about whether they are claiming the proposed policy is good for the economic aspect of the person or for the whole person. If the argument is truly proposed for the whole person, then the scientist is acting in an ethical capacity, not in a scientific (in the modern sense) capacity.

The second case, which is the most common by far, is an illustration of wishful thinking. It consists in hoping that what is good for the person from the economic point of view will be good for the person in every aspect. To advocate a policy on scientific grounds one must have evidence that the policy is not deleterious to human welfare; to simply assume that the policy will not harm some other aspect of the person is an example of wishful thinking and not of science. If this is the case, the nature of science demands that all those assumptions be made explicit. Researchers must take pains to make clear that they consider the person only partially.

On the other hand, violations of the principle of increased knowledge are somewhat more uncommon and usually take the form of a theologian or philosopher claiming that the social sciences are simply applied ethics or applied moral philosophy. Such allegations only serve to make science distrustful of philosophy, because when philosophers or theologians advocate particular technical solutions as best policies, they are saying that the solutions are ethical and technically superior to other available ethical alternatives. To do so, the philosopher acts in a scientific capacity. Of course, there are cases when well informed persons are able to practice both philosophy and science, but both practices are different even when they coincide in a concrete personal act.

The policy recommendation which naturally stems from this analysis is simply that both science and philosophy must stay within their formal objects when making policy recommendations. General policy recommendations are reserved for ethics, and technical solutions (provided they are ethical) are reserved for the sciences.

The trade-off between normative generality and technical problem solving should be carefully explained to all social scientists, philosophers, and students since it holds the key for a harmonious development of knowledge about the human person. To the best of my knowledge, graduate students in the United States are not exposed to this teaching at all.

For Catholics There Is an Additional Source of Knowledge

So far we have discussed the structure of modern social science assuming that the only source of truth comes from human reason. Christians have an additional source of knowledge in the Revelation given by God.

Science demands objectivity and permanence. Therefore, to use revealed information as scientific premises the Revelation must be public and the interpretation of the Revelation must be objective and unchangeable.
If the Revelation is simply a private communication then it cannot be used in science because science is by its own nature a community project, and one would be necessarily making such revelation public in the process of making science. In simple words, science demands that the premises be made explicit.

Even if the Revelation is public, there is still a need to have an objective and unchangeable source of truths. The premises used in science must be independent of particular persons and particular times. Christians who believe in private interpretation of the Revelation have little grounds for making the Revelation a source of scientific truth, since all scientific knowledge derived from revealed premises would be compromised by a new reinterpretation of a revealed premise. Therefore such science would be completely subjective and hence, it would not be a science at all.

Catholics can use the Revelation in a scientific manner because they know by faith that the Redeemer set up an institutional structure which has made the Revelation public, objective and unchangeable. The institution of infallibility of the office of the Pope in matters of faith and morals frees the Revelation from subjective interpretation (including subjective interpretation of the person who happens to be pope) and from changes in interpretation as time progresses. New truths can be discovered but old truths can never be contradicted. Therefore, infallibility makes revealed truths suitable to be used as scientific premises.

A new science which studies the human person as person using reason and revelation is possible. This new science has, of course, positive and normative aspects. The normative aspect is known as moral theology and the positive aspect is the theology of the human person. Because the formal object of the new science wholly contains that of ethics and the science has additional premises in the Revelation, for Catholics the highest human science is the theology of the human person and moral theology. The introduction of this new science maintains the partial ordering of the human sciences. Consequently, a positive statement of any social science cannot contradict what the theology of human person teaches. All contradictions must be apparent and are often caused by a discipline going beyond its formal object. In other words, the principle of non-contradiction applies.

In addition, normative statements derived from moral theology cannot be contradicted by natural ethics or any lower social science. If moral theology discovers an action to damage the person as person, then such action should not be done even if it is good for some abstract aspect of the person, or even good for the person considered wholly but ignoring the information of the Revelation. In other words, the principle of non-contradiction for normative statements applies.

On the other hand, the Church teaches that it was not the mission of the Redeemer to provide technical solutions to particular problems and hence moral theology can be wonderfully informed and complemented by sound normative statements from the lower sciences. The principle of increased
knowledge also applies.

**Conclusion**

We have attempted to establish a number of propositions:

a. Formal objects provide the disciplinary character for each human science

b. All human sciences have a positive and normative aspect.

c. All human sciences can and do derive scientific positive and normative statements.

d. There exists an inherent trade-off between normative generality and technical problem solving. This trade-off gives rise to the principles of non-contradiction and increased knowledge for positive and normative statements and forms the basis of a harmonious development of the social sciences.

e. *Non-contradiction of positive statements*: Positive statements of a lower human science cannot contradict the positive statements of the philosophy of the human person.

f. *Increased knowledge of positive statements*: Lower human sciences can and do produce many positive statements about human nature which are not evident to the philosophy of man.

g. *Non-contradiction of normative statements*: Normative statements of a lower human science must always be qualified by the formal object of that science. Only ethical statements can be actually advocated.

h. *Increased knowledge of normative statements*: Lower human sciences can derive normative statements which provide technical solutions for human problems considered under the formal object of the particular science.

i. Catholics can legitimately use the Revelation to form a higher human science known as moral theology and the theology of the human person. This new science is made possible because Catholic Revelation is public, objective and unchangeable. This new science is the highest human science and the principles of non-contradiction and increased knowledge still apply.

**Guiding Principles for Everyday Action**

*For the researcher* in a modern social science field (e.g. economics, etc.):

First, we must recognize our premises explicitly and determine whether we know them to be true based on reason or based on faith. Second, we must recognize that we are not experts on the human condition as a whole but only on a limited number of abstract qualities present in concrete human persons and communities. Consequently our positive and normative claims must always be limited by our area of expertise.

Within our area of expertise, however, we have autonomy to select and use the best scientific methods to reach accurate conclusions regarding the impact of proposed actions or conditions on human persons and communities from the perspective of our particular social science. In other words, social sciences are autonomous within their own area of expertise.
When we advocate for policy changes we must be aware that concrete policies have concrete effects on real persons and communities. We should be humble and recognize that concrete policies are likely to have effects beyond our narrowly specialized area of expertise. As an economist, I must recognize that all economic policy has non-economic effects. Just because a policy is economically sound it does not necessarily follow that it should be implemented. Yet, economic science is only concerned with the economic impact of the policy. To go beyond and claim a policy as an unqualified good is either the opinion of a private citizen or a claim that I have become an expert on the human condition as a whole. In harmony with the principles detailed above, a social scientist cannot advocate any policy as an unqualified good without, in fact, becoming an ethical philosopher. In most cases, such advocacy is simply weak ethical philosophy disguised under the technocratic mantle of science.

All scientists, whatever their ethical persuasion, must stand united against practices which cover ethical statements under the mantle of scientific findings. People have a right to know that modern social science cannot determine policy alone because it lacks a principle of integration. The integration of the social sciences and their many findings and recommendations is possible, although only in part, by the consideration of the human person as person. Therefore, respect for ethics and for the philosophy of the human person is paramount not only for beneficial policy making but also for safeguarding the scientific character of the social sciences. It is precisely that recognition of the primacy of the person which legitimizes social scientists becoming embroiled in policy-making.

Advocacy of unethical policies is unscientific. Scientists (and/or professional organizations) which advocate that which is unethical on alleged scientific grounds must be challenged to show that the intended policy is not detrimental to real human persons and communities (and not just to abstract qualities selected by the advocates themselves)!

For teachers at all levels:

The trade-off between normative generality and technical problem solving may be of interest for all students. Students have a right to know the limits and strengths of each social discipline. We need a generation of scholars who will humanize the social sciences by placing them at the service of what is good for the human person as person.

Notes

1. Sincere appreciation to Pam Montes, and an anonymous referee for suggesting improvements on this work.
2. Some social sciences study involuntary human action like the development of cognitive abilities in children, uncontrollable psychological disorders, etc. To the extent that they do so, those sciences are natural in both senses of the term (using unaided reason in understanding the
3. This confusion dates back to Hume's attack on dogmatic theology (see, Roy 1991).

4. It can be argued that scientists rarely agree on details, for example, exactly at what percentage inflation becomes "high inflation"? Social sciences, despite much effort to the contrary and deceptive mathematical garb, are not exact sciences since their material object is the human will. The lack of precision in the social sciences should not distract us from the fact that there are wide areas of consensus regarding what level of inflation are high inflation levels for a particular country at a particular point of time.

5. There are higher levels of abstractions until one reaches the consideration of being as being (the formal object of metaphysics). However, while those higher levels inform the philosophy of man they do not allow the consideration of the human person as the object of study.

References


