Thoughts on current sociological theory: a systemic perspective

By Francisco Parra-Luna parraluna@cps.ucm.es

INTRODUCTORY REMARKS

Recently, at the behest of a number of distinguished colleagues, a call was made to defend the academic continuation of sociology in Spain as an independent and specific science with a tradition of its own. As this looked to me like a worthy cause, I decided to support the initiative. But on second thought, such an approach may prove to be short-sighted.

Notwithstanding the call for independence, it would be preferable to go to the heart of the matter and take other measures, based more on the scientific potential of the discipline than on pressure typically brought to bear by the group of professionals involved, with the faint scent of corporatism that such attitudes inevitably invoke.

To begin with, it may not be a bad idea to pay some heed to Lachenmeyer (the Columbian colleague who died insane, after a long bout with acute sanity) when he firmly sustains in "The language of sociology" that sociology is not a science because of its language, which he finds obscure, imprecise, vague and contradictory. Another reference to bear in mind in this regard might be Boudon who, in "La crise de la sociologie", analyzes the three functions (critique, measurement and concept) of formalization in sociology.

The revival of this idea by someone who, as many of you know, has consistently defended (probably with greater determination than success) the possibility of quantifying some of the most relevant sociological concepts, will very likely have some of you thinking: "ah, it's Parra-Luna again, who believes you can quantify anything..."

And you may not be wholly wrong about that. But it's worth while to reflect on the language we use and its future in the new society we're living in, characterized by three changes that are important for sociologists: a) the growing numerization of social (cultural, political, economic, sport and others) developments, with the quantification of practically everything that matters in modern society, sometimes with surprising accuracy; b) the widespread use of computers and standardized programs and all that entails in terms of facilitating conceptual analysis; and c) the waning prestige of merely essayistic or pseudo-philosophical approaches in a technically-oriented world that demands optimized solutions to specific problems. By this I don't mean to say that the

essayistic approach is unnecessary: on the contrary, what I'm saying is that it goes against the scientific current and may even detract from the weight of academic sociology as is the case of similar disciplines, or even of sociology itself, with its more and more frequent disappearance from university departments of economics. The consequences of these changes may be decisive for the profession and I honestly believe that either we learn to back our theoretical hypotheses with earnest data and calculations, or I'm afraid we'll find ourselves marginalized as an academic science, with a declining number of curricular openings to be filled. And their number will continue to drop, due to the breadth and depth of knowledge involved and the lack of time. I often use the following example with my students: the enormous difference between the statements a) "this is light" and b) "this weighs 15.2 grams" is that the former is not falsable (a determining factor in science), while the latter is. In other words, since in non-quantified language anything goes, it is ultimately worth nothing or very little.

But what is perhaps most surprising is that there's nothing difficult about the approach I propose. It would only be necessary to heed Paul Lazarsfeld and his famous nineteen sixties proposal to move beyond conceptual image to numerical indices and refrain from discussing concepts until they are operationally defined. That way we would start to prove the honesty of our knowledge, no matter how great or how small, and to put conceptual content forward in terms of empirical indicators. That way, following Wittgenstein's recommendation, we would only talk about what we know, which in our professional circumstances means focusing on the developments for which we have valid quantified data (which exist today and on very relevant aspects). And that way we would avoid much of the scientific discredit that goes hand-in-hand with non-formalized – or worse yet, artificially cryptic – language, construed by other scientists as an attempt to conceal our lack of rigour (as in A. Sokal's famous taunt). Fortunately, the sociological tradition in Spain enables us to strike a balance between Amando de Miguel's articles in *Informes FOESSA* and Carlos Moya's critique of empirical indicators.

THE ROLE OF THE "NEED/VALUE" DYAD IN SOCIOLOGY

But we could carry this argument a little farther and reflect on what sociologists do with respect not only to the methodology, but to the object of study, and of course not in Spain alone.

We might ask for the nth time: What is sociology? There's no need to go back to the official founder, Comte, to take as a given that it is the science (understood more as pursuit of scientific rigour than cumulative theory) that attempts to understand the origin of social phenomena and how they function, and to pose solutions to the respective problems. With their in-depth analyses of social phenomena, Weber, Durkheim, Simmel, Sorokin, Parsons and others enhanced that understanding. Marx and the long critical tradition that followed (the Frankfurt school, for instance), in turn, brought to light certain therapeutic possibilities that may have ultimately contributed to progress with the advent of today's so-called developed democracies. In any event, today's (like yesteryear's) sociologists seek to understand the society in which they live and help improve it. This is the sole function of sociological action and the essence of the sociologist's trade.

But the key question is: Why have individuals been forming cooperative relationships since the beginning of time? Or in other words, why do societies of

whatever nature (family, group, associations...) exist at all? Profusely answered in every sociology manual ever published, this age-old question should perhaps nonetheless be answered again as follows:

Initially, for one sole reason: **individuals work together to better meet their needs**, understood to be a suite of what may be felt as present or future desires, wishes, drives and aspirations of whatever nature. There could hardly be a more succinct answer.

Assuming that to be the initial motivation, it would be the "expectations of reaching higher degrees of satisfaction", and such **expectations** alone, that would explain the ultimate aim of living in society. They would, in a word, represent the "cement" that binds and the force that galvanizes durable societies, inevitably driving individuals to inter-relate with different degrees of intensity and establishing among them an initial attraction that is not necessarily strictly rational. The intensity of that drive is what later makes associations among individuals endure.

Hence, one concept that is central to sociology is social or organizational EFFICIENCY. The efficiency of social organizations is the only idea able to justify their ultimate purpose, demonstrate whether the aims for which they are created are met, make good the adage "united we stand", prove that better results are obtained when tasks are undertaken in common and, in short, show that any effort or extra cost needed to make cooperation effective is worth while. The enormous increase in early age industrial productivity explained by Adam Smith's famous pin factory example was simply the production "differential" attributed to any societal undertaking. This same efficiency differential was discovered by primitive humans, who together were able to do what would have been impossible for any single individual. And of course the very first known human society consisted in the mother-child relationship formed at childbirth. When the greater benefit anticipated by the individuals involved fails to materialize, the society may disappear, which while certainly not the norm, is known to happen, as when marriages end in divorce or business partners find their joint venture no longer viable.

Social efficiency is such a core concept that it has come to represent the ultimate aim of societies in general and consequently to play a key role in sociology's scientific endeavour. This necessitates a revision of the systems known as historic needs, be they individual or social, natural or artificial, simple or sophisticated, rational or irrational. If societies exist **solely** to enhance levels of satisfaction, the needs in question must be identified to use them as patterns for measuring social efficiency, change, progress and the intelligent adaptation to times and circumstances; this is requisite to judging to what extent one type of society is worth while compared to another, and in short to calibrating (criticizing or pondering) the virtues or "added value" of, first, the social as opposed to the individual approach, and second, one type of society as opposed to another. If we have no such list of needs, it may be safely asserted that we are in no position to undertake a genuine sociological analysis of social phenomena.

The next step must necessarily be to specify such needs or requirements. And while initially from an intuitive vantage, it does not appear to be particularly difficult to ascertain that people, regardless of time or place, pursue values such as: good physical and mental **health**, a certain level of **material well-being**, **safety** from danger and contingencies, a **knowledge** and understanding of the world around them, **freedom** of movement and expression, perceived **justice** in the distribution of the available resources, life in **harmony with nature**, being **loved** or admired by others, and finally full **development of one's personality** as an intelligent and creative being. These nine requirements would constitute a Reference Pattern based only on so-called "universal" needs, or needs common to the human race and distinguishable from a much broader spectrum of co-called cultural needs. And they form a very well known suite of natural rights generated on the basis of the most innate and desirable of human aspirations.

This initial list of human needs, or any other regarded to be better founded, should be built into a theoretical model that should in turn be appropriate for the systematic measurement and comparison of societies, or even individuals. On these grounds, a hypothesis may be advanced to the effect that social progress is determined by an integrated rise in the levels of satisfaction, both actually achieved and as perceived by the people involved.

Such levels of satisfaction can only be attained by producing the values that represent them. Here we might cite anthropologist C. Kluckhohn for whom "value and need are two sides of the same coin"; i.e., each need is met by producing the respective value. Hence, for instance, the value "health" corresponds to the need to feel physically well, the value "freedom" to the need to feel free, and the value "knowledge" to the need to understand the unknown. The dynamic system of each individual's or society's needs is met, then, by "producing" the respective system of values. Sociology (the basic explanation of why individuals live in societies) ultimately and inexcusably becomes axiological, explaining not only the existence of society *per se*, but also providing for the comparison across time and space of different societal events in terms of their axiological efficiency.

Building on the preceding premises, the next step is to make each of these "need/value" dyads operational to be able to discuss them rigorously and honestly. Lazarsfeld established the basic methodological rules for this endeavour, based on a principle consisting in beginning with a conceptual image of the concept (the "need/value" dyad), dividing it into theoretical dimensions and then sub-dividing each dimension into quantified empirical indicators. The final stage, numerical integration, yields the respective series of objective (record of events occurring) and subjective (opinion polls) indicators, something that I'll be describing later. If, as Lachenmeyer sustains, sociology can't be regarded to be a science because of the poor quality of its language, Lazarsfeld's method is an essential contribution to surmounting the shortcomings of that language.

And when all the necessary concepts – both qualitative (distinguished on the basis of semantics) and quantitative (distinguished on the basis of intensity) – are finally in place, sociologists can operate with them to seek measurements that describe – with the greatest possible accuracy – social pathologies and the most suitable therapies. Measuring the social-labour climate of an organization, for instance, may help to discover social pathologies and ways to treat them. And specifically, quantitatively describing that one society is better or worse (more or less efficient) than another, and explaining the factors determining the difference, is within reach of this new axiological discipline.

All the foregoing scan be summarized in the following syllogism:

- 1. People are, by nature, **needy**.
- 2. If they form societies it is **solely** to better meet their requirements through the greater individual efficiency attained.
- 3. Therefore the "social efficiency" concept is the construct that **explains** the existence of society and, therefore, all sociology deriving from the need to understand and improve such efficiency.

This basic syllogism can be extended and developed in the following successive steps:

4. The identification of the requirements common to the human race makes it possible to establish a **Reference Pattern** that can be used for comparative measurements of efficiency

5.in which each requirement can be expressed in terms of the dyad that begins with a "need" and ends with the respective "**value**".

6.Each value must have a precise **operational definition** in the form of factual, objective and subjective indicators.

7.Consequently, the success of the "societal venture" is given in quantified (and therefore "falsable") form through the **integration** of the different degrees of individual satisfaction attained.

The inevitability of this methodological sequence for any analysis of the existence of society *per se* having been established, along with the ensuing importance thereof for any manner of sociological analysis, regardless of the object, the following should also be borne in mind: a) one or several of the Reference Pattern values are necessarily involved; b) each value attained forms a system (with complex inter-relationships) with all the other values in the Pattern; c) account must be taken of their ultimate effect on the system (the inter-related suite of values); and d) axiologically decontextualized or non-systemic sociological analyses may be open to scientific critique.

In short, a possible Axiological Theory of Society may meet two ends: a) to focus on the social efficiency concept as the construct demonstrating the ultimate aim of society (and Sociology ?); and b) to obtain theoretical conclusions through the use of disprovable language. This leads us to pose a problem central to today's sociology.

SOCIOLOGY'S NEGLECTED OBJECT: THE "SYNERGETIC DIFFERENTIAL"

Synergy derives from the Greek synergos¹, which means "cooperation among different functions within a whole" (Lalande, 1968). The term social synergy is used to refer to the added "productivity obtained by certain people by simply cooperating with one another". To perceive such a differential the following inequality must be solved: System S comprising n persons produces Y, while the persons working individually produce p1, p2 ... pn, the total sum of which is usually smaller than total system production. Formally:

$$\begin{array}{c}
n\\
Y > \sum p_i
\end{array} (1)$$

this fundamental inequality is used to calculate what I call "synergistic differential" (SD), which takes the form:

$$SD = \frac{Y}{\sum_{i=1}^{n} p_i}$$
(2)

where if SD > 1 the differential is positive and the societal model justified by the "gain" generated by social cooperation.

A. Smith's well-known pin manufacture example (economic synergy) or the mere survival of a new-born (vital synergy) are but two items on a long list of possible synergistic situations.

The social unit (from couples in love to the most complex organization) is, then, the essential cell of modern society, which is woven from countless more or less specialized social units. Families, schools, churches, companies, bureaucracies, political parties, governments and so forth are the social units on whose "synergistic differential" we depend from cradle to grave, making the modern world inconceivable without their operation, development, creation and demise.

And yet science seems to have abandoned the study of social units as such. And if sociology – the science of human groupings – doesn't attend to this question, who will? Because of the division of scientific-academic fields, each of the specialities studying *social phenomena* ultimately explores and analyzes its respective tree, but none sees the forest as a whole, i.e., the "synergistic differential". And yet this may well constitute the most purely sociological view of social units, inasmuch as it is presumed to be the only perspective of interest to the so-called "man in the street". Specifically, what I mean is to take what might be called the "*added productivity* gained by a society as a result of its mere existence" as an object of research. Any study of that productivity should be based on fundamental inequality [1] and analyze the following:

- 1. The structure of Y insofar as it describes a complex comprising theoretical dimensions D and empirical indicators I. Formally: Y = f(D1, D2, ..., Dn) where Di = f(y1, y2, ..., yn). Any social unit must, then, be aware of its objectives. If they are unknown or unforeseen, if they are not compared, the theoretical understanding of the social unit may be deficient or spurious and its management socially reprehensible, due to the failure of analysts and managers to take account of the needs of the members of the unit and the degree to which they are met.
- 2. The understanding of X in terms of the resources used, m. Formally: X = f(m1, m2, ..., mn). Any social unit must be aware of the resources it uses and their total cost to obtain the above objectives, a measure of utmost ecological or negentropic interest.
- 3. The final understanding of T in terms of Y and X in the expression T = Y/X where, by virtue of the prior standardization of indicators for averaging, if T>1, positive transformation takes place; if T<1, transformation is negative and if T=1, it is neutral.

Neglecting any of these three dimensions constitutes a very serious omission, for it entails the failure to see not a forest comprising trees, but a community of men and women with *needs* that they seek to *satisfy* exclusively through their social interdependence. "Human societies exist for only one reason: to enable humans to satisfy their needs" (Lenski & Lenski, 1987: 33). Or, to quote Mullins (1996: 294) when

referring to organizations: "strictly, organizations have no goals; only people do". The result of such neglect would be that the leitmotiv of society, the general degree of satisfaction – real and/or perceived – of all its members, would go unanalyzed. The softfocus vision of scientific specialities (Ortega and his "barbarian specialists" necessarily come to mind) and the resulting segmented study of society can be likened to analyzing the separate parts of an engine before it is put together: the unity, operation and purpose of the engine as a whole and the *raison d'être* of its parts are lost on the analyst. Let us see what happens:

Economists, of course, study means of production, and modern economists in particular monitor a short series of instrumental variables such as inflation, interest rates, investment, balance of payments and very few others. All these parameters are studied in the context of supply and demand, ultimately focusing on only one of the values sought by society: material wealth. This introduces a considerable bias in the evaluation of these variables and their systemic effects on the whole. Unemployment, for instance, an extremely important social variable, is regarded by economists to be a by-product secondary to and governed by the above parameters. Another speciality, social anthropology, studies the traditions, customs and folklore of peoples and societies grouped in a more natural, less artificial manner. And while values constitute one of the key concepts of social anthropology, they are generally viewed more from the perspective of diversity (cultural relativism) than as the convergence of personal interests in a few central values or universal goals. A second obstacle is the intrinsic difficulties in socio-anthropological quantification. Social psychology, in turn, studies an individual's behaviour in society and while it takes the individual as a suite of objective and subjective needs, the focus in this discipline is, naturally, more on the social factors that condition individual behaviour than on the behaviour of the social unit overall. The study of societies' interaction with and adaptation to the physical environment is the subject of human ecology, whose central concepts are the "niche" or place they occupy, density, domination, competitiveness, physical-biological symbiosis and so forth. Historians research the past, centring their analyses either around the behaviour of large socio-political units or the biographies of notables, with insufficient regard for either the comparison of the value systems-general goals reached by past societies or the identification of their axiological trends. Philosophy (or what appears to be left of this discipline) has shifted primarily towards formal logic, which some see as unrelated to today's concerns and problems in what would seem to be a retreat from the classic humanistic approach. Special mention goes to political science, perhaps the discipline that should be most committed to specifying and analyzing (political) organizational-social answers to the population's demands and needs. This branch of social science errs when it considers the political system as a separate subsystem of the social system that it treats as the surrounding environment. Such an academic and artificial separation, built perhaps around an analogy with spatialism, a fashionable concept of late, has led authors of the prestige of David Easton or G. Almond to define political system outputs to be "decisions", and the outputs of the three powers legislative, executive and judicial - to be "actions". Not a word is said (Deutsch is the exception) about the specific needs of the community and its political response to those needs, which should be the key targets of political-logical analysis. Political science usually deals with electoral processes, power, lobbies, political bureaucracies or international relations. But rarely does it address the axial political problem, i.e., the definition, measurement and comparison of what a political system should do and does to respond to the specific demands made by the population. This is the more galling because the population votes for or chooses its politicians for the exclusive purpose of

fulfilling this neglected duty. By contrast, one academic branch that does address the "overall productivity" of a social system is **business administration theory**. Taylor's and Fayol's classic studies, as well as research by Drucker, Perrow, Selznick Simon, Tannembaum, Argiris, Barnard, Etzioni, Herzberg, Likert and many others, and the efforts of institutions such as the Center for Effective Organizations headquartered in California, U.S.A., or the interesting papers recently published by the American Compensation Association (McAdams & Hawk, 1994; McAdams, 1996), aim in this direction, but such attempts are burdened with two essential shortcomings: first, they fail to address epistemological globality from a theoretical standpoint and second, they do not express system outputs in terms of values-goals, the only items that can be directly referred to the respective needs of the individuals comprising an organization.

AND SOCIOLOGY?

Despite its residual nature in respect of other sciences which have sprung from it, Sociology covers a considerable range of issues. One only has to look at the 91 subsubjets of the "Sociological Abstract Classification Scheme", each of which can be futher subdivided. However, what is vexing is that the concept of "Social Efficiency" (and "organizational effciency" in particular) is totally absent, although it is precisely the different degrees of usefullnesss and individual satisfaction which brings about the "associative fact". Morover, it can even be fascinating to explore the reasons why such a remarkable concept is missing. It seems that we sociologists, once we turned away from the great theory, have followed on two main paths: we either devote ourselves to re-writing essays on Sociology's contributions time and again, or we engage in empirical microsociology which is sometimes so out of context that it is difficuklt to link it to the efficiency required. How can the concept of "social efficiency" fall outside the field of interest of sociologists, when they are precisely the scientists specialized in understanding why societies come into being and what are their fruits?. It is hard indeed to find a logical answer.

The answer is difficult to find because, among other reasons, it has been argued that it is almost impossible to agree on a general model of objectives and ultimate goals to be achieved by all human organizations, in order to be able to measure their efficiency (see f.i., Fernandez Rios's, 1997, inventory of opinions). This argument is groundless as Parra Luna (2001) attempted to demonstrate by presenting a general model of common human needs based on four known traditions: Philosophy (natural law); Sociology (social indicators movement); Politics (Universal Declaration of Human Rights); and Empirical experimence (government ministries in nearly all countries of the world).

Within the sociological tradition, the social indicators movement started by Gross, Bauer, Biderman and others in the 1960s, who later apply it to "the State of the Nation", and the studies of the "Scord card" of enterprises in Europe, like those conducted by Chevalier (1977) which come closes to the concept of "social efficiency". However, neither of these approaches provided a closed and operational theoretical model of common "needs/values", -which nevertheless can be closed and operational (see Parra-Luna 2002)-, nor have empirical applications appeared systematically.

WHAT OF THE SOCIOSYSTEMIC APPROACH?

This approach has not tackled the problem of a generally applicable model of human needs either, although mention must be made of the works of Terleckyi, van Gigch, Hall, Buchanan and others, who have come close to it. However, the sociosystemic approach as a whole, which could have been expected to focus on the theoretical and ultimately empirical teleology of social systems (the description and measurement of their goals, and therefore their progression/regression as a core task) has not adopted necessarily "sociologising" point of view, that is to say, it does not contemplate de system fron the point of view of the man in the street. This has led to forgetting the central and ultimate aim of Sociology as a science which has to account for collective as opposed to individual efficiency. Just look at the more than 70 papers submitted to the XVI World Congress of Sociology for its RC.51 on Sociocybernetics, which deal with subjects such as "Social Capital", "Innovation", "Cause-Effect Relationships", "Information", "Emergence" and others. In other words, not even the systemic sociologists seems to be interested in the fundamental "input/output" relationship of the social transforming operation to which the social system owe its very existence.

Although general sociology may have forgotten its prime objective, sociosystemic theory, with its necessary theoretical-methodological vision based on the globality of the system, would commit a twofold sin: it does not focus on its basic target, nor apply its method. Meanwhile, the world's real social problems caused by this inadequate ouput/input relationship (or Y/X) of social systems, both great and small, are handled by governments (inevitably and overly concerned by political power games), or by the churches, NGOs and other humanitarian bodies who lack the tools to conduct the necessary scientific analysis for their understanding and treatment. An explanation for this indefference may be found one day.

Professionally, this leads us to a disquieting conclusion. We spend our time explaining and understanding the causes of something we do not know. Although the outputs "Y" are unknown we persist in analysing "X" and "T" as their explanatory causes as it is taken for granted that Y=f(X,T), or explicitly that Y=XT. As for decades, it has been systematically attempted to explain something which is unknown, the sociological adventure has become a task almost surrealistic, which do not even allow serious social critique because we do not know to what extent a given social policy or change may affect the whole values system which represents "Y" as the ultimate goal of any organized society. So, not only our discurse is not sociologically based (it is not based on the point of view of the man in the street), but we are methologically off track when we try to explain something of which we are ignorant. Last, we also sustain that it is not possible to know the concept "Y", which closes the pessimistic circle of the sociological profession. Summarizing, we do not even know why society exists. Or what could be more serious: it seems that we prefer not to face this question.

IS THERE AN ALTERNATIVE?

The foregoing does not mean that Sociology's historical constributions have not been of value. However, it can be argued that it is both complementary and urgent to tackle the problem of the concept of "social efficiency" in its two main dimensiones: first, the description and measurement of the differential given by inequation (1); and second, its explanation through the complex set of variables that represent "X" and "T", and mainly the latter, which is the sociological (organizational) dimension par excellence. A seven-step strategic program could be developped:

a) To reconsider the **basic elements** of any social system from a humanistic perspective. F.i. to critisize the four elements (Individual, Society, Need and Value) proposed by Parra-Luna (1983).

- b) To reconsider whether any organized society is necessarily a **transformation** system composed of the "Environment-Inputs-Transformation-Outputs-Control-Feedback" chain.
- c) To reconsider whether the pursued set of OUTPUTS (Y) of any social system is **the most significant dimension** from the sociological point of view (of the man in the street).
- d) To reconsider whether these OUTPUTS can be represented by the Referential Pattern of Values composed of the nine following values: Health, Security, Wealth, Knowledge, Freedom, Distributive Justice, Conservation of Nature, Quality of Activities and Moral Prestige. (see their operational definitions in Parra-Luna, 1983)
- e) To reconsider whether the level of achievement of each one of these values can be quantified following the Lazarsfeld's methodology from the concepts to complex indexes.
- f) To reconsider whether the Inputs (X) can be represented by the levels of expenses, costs, energy consumption, etc. necessary to produce the systemic outputs.
- g) To reconsider whether a basic notion of "social efficiency" could be measured by the expression Y/X=Outputs/Inputs, although there can be more subdimensiones of the ultimate concept of "Social Efficiency" such as Efficacy, Effectiveness, Ecological Performance, Environmental adaptation and others.(see f.i., the six dimensiones of the concept of "Organizational Efficiency" in Parra-Luna, 2006, Anex 3).

If these re-considerations could confirm this possibilty, Sociology could make an important and decisive step forward. Any global society (f.i., the Nation State) could be subdivided (because of its fractal property) into a multitude of social organizations, public and private, big and small, simple and complex, (from the nuclear family to the world as a global system) and all of them could be analyzed through this new "transforming" approach where the general rule would be Y=Y/X. Humanistic Sociology's main concern, then, would logically be, to understand how to achieve the best possible value system for each one of the citizens at the minimum ecological cost.

With a view to merely suggesting reflection along these lines, I would mention a text I have nearly finished and that you may wish to critique, provisionally titled "The sociologist's trade". It consists of three separate papers dealing with the above issues, which I can e-mail to you if you wish:

- 1. A draft theory of society² (published in *Papers*, 72, 2004). (34 pp.). (English version in *Systems research and behavioral science*, 18,2001).
- 2. Report of the practical application in a company titled "La eficiencia empresarial como factor dinamizante del bienestar social" [Business efficiency as a factor able to drive social welfare] (submitted). At the end of this second paper you will find three annexes that attempt to demonstrate the realistic possibilities, applicability and simplicity of critical quantification in sociology (165 pp.).
- 3. End notes for students on "The sociologist's trade".

And this, then, is my grain of salt. Francisco Parra Luna parraluna@cps.ucm.es