

CULTURE WITHIN NATURE

CULTURE DANS LA NATURE



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Beat und Beatrix Sitter-Liver (Eds.)

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Postmaterialism and the Social Ecosystem

Juan Díez Nicolás, Madrid

Introduction

Advanced industrial societies have reached a high level of material comfort based on a particular model of social organization and a highly elaborated technology.

However, in so doing, they have created serious problems of environmental deterioration and scarcity of resources which threaten to reduce the quality of life. The process has been reinforced by the drive of less developed countries to attain the same level of material comfort.

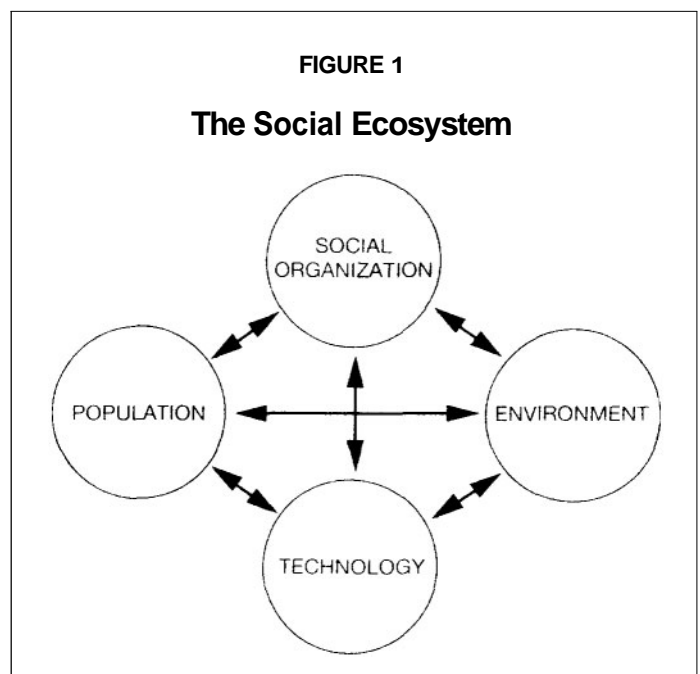
In view of this worldwide (global) situation of a threatened environment, and the inter-relationship among the four main elements of the social ecosystem, one would expect a change in the value system (as a collective, not individual, response) in the form of greater preoccupation with environmental protection than with economic growth.

Given the pattern which changes in social values usually follow, one would expect that preoccupation with environmental issues would emerge earlier in the more developed nations and amongst more "central" social groups than in less developed countries and in the "social periphery"

1. The Social Ecosystem

According to social ecosystem theory, populations adapt to their environment in order to survive, since it is in the environment where they find the sustenance resources needed for survival. But *human* populations are the only ones to adapt to their environment through culture, which for heuristic purposes can be divided into its material and non-material aspects. Culture may be considered, therefore, as an instrumental response on the part of human populations

in order to achieve a better adaptation to their environment. Population, environment, social organization and technology are the four elements of the ecosystem; they always interact with each other, so that substantial changes in any one of them will have repercussions on the remaining three (Hawley 1986; Díez-Nicolás 1983, Fig. 1.)



The ecosystem is always in a state of "unstable" equilibrium, since adaptation is never (nor can be) perfect. This would explain why the assumptions of conflict and change are as much inherent in the system as the three equilibrium assumptions (demographic, spatial and functional). Similarly, the different forms of social organization constitute instrumental responses (cultural responses, including technology) to the problem of adaptation faced by any population that must survive with the resources which it finds in its environment, and that ideational and value systems are part, as elements of the non-material culture, of the so-called "social organization".

At present, and since World War II, world population is growing at a rate never experienced before in human history (between 1.5 and 2.0 per cent annually since 1950 to the present). This growth rate, on the other hand, shows great regional differences to the effect of augmenting inequalities between developed and less developed countries. Moreover, it contributes to greater and faster population concentration in urban areas to the point that, within the next few years, the situation may be one in which half of the world population will be urban, also for the first time in history.

Rapid demographic growth implies a growing pressure on existing world resources as a higher "per capita" consumption of resources results from a higher demand of consumer goods in all societies. The growing use of environmental resources all over the planet creates problems, not only with respect to nonrenewable resources, but also with respect to renewable ones (since the rate of usage is faster than the capacity of renewal). This translates into a growing disequilibrium in the world physical environment, which may in turn constitute a serious threat to the survival of humanity.

Actually, the quality of life has already deteriorated, and one would expect that, in future, social and economic inequalities among and within countries will be even greater. Concomitantly, one would expect an increase of latent and/or manifest social conflicts, both between and within societies (Díez-Nicolás 1980)

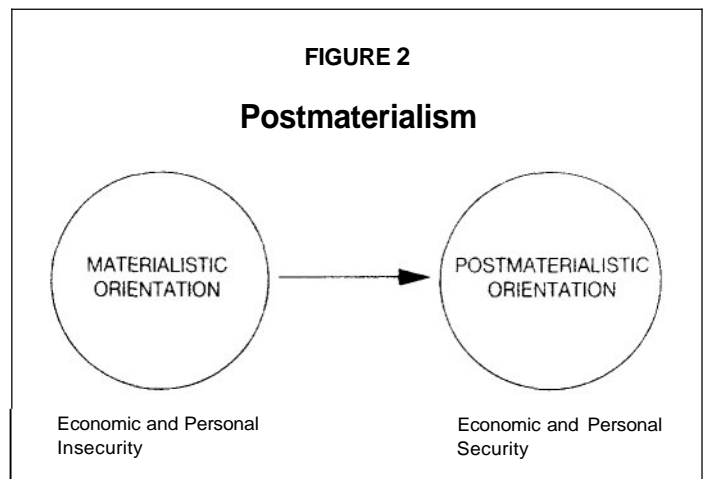
Therefore, advanced industrial societies have reached a high level of material well-being owing to the application of more complex technologies and more elaborated social and economic organizations, but they have concurrently created serious problems of environmental deterioration, which are increasing due to the spread of advanced technologies and more elaborate social organizations in less developed societies.

According to social ecosystem theory, these important changes in population and environment, and more specifically the real threat to the environment, should have repercussions on the other two elements of the social ecosystem, especially on the value system.

2. Changes in Social Values

For centuries, the majority of the population in all societies was subject to hunger, sickness and war, in a situation which may be defined as one of economic and physical insecurity. Since World War II, however, greater and greater proportions of the populations of more developed countries have succeeded in reaching an acceptable level of economic security and well-being which, combined with the absence of war for such a long period, has made it possible for younger cohorts (i.e., those born after 1945) to be raised and live in societies which provide higher degrees of economic and physical security than ever before in history.

This change from economic and physical insecurity to economic and physical security led Ronald Inglehart to develop his theory of "postmaterialism" as a theory to explain the change of value systems in present societies (Inglehart 1977, 1990, Fig.2)



The main hypotheses in this theory are the "scarcity hypothesis" and the "socialization hypothesis" (Inglehart 1985). According to the "scarcity hypothesis", when populations are less concerned about their economic and physical security (materialist orientation) they tend to become more concerned about aesthetic, relational and quality-of-life issues (postmaterialistic orientation). Therefore, it may be surmised that socie-

ties, and social groups within each society, which attain economic and physical security *earlier*, will also become more postmaterialistically oriented *earlier*. According to the "socialization hypothesis", and bearing in mind that individuals acquire most of their basic values during adolescence, it seems reasonable to expect that younger cohorts in advanced industrial societies, raised in a more secure environment, will also be the cohorts showing higher levels of postmaterialism (Abramson/Inglehart 1992).

The two hypotheses have been repeatedly verified in about fifty countries in the five continents, including societies at very different levels of development.' Moreover, they have also been verified for Spain at both national and regional levels, using a data file of over 50,000 personal interviews collected between 1988 and 1992 (Díez Nicolás 1993) On the basis of the twelve-item scale developed by Inglehart to measure postmaterialistic values, it was found that the proportion of population showing a postmaterialist orientation has grown steadily through the five year period; that postmaterialism is highly and directly correlated with the level of economic development (as measured by *per capita* income), and negatively correlated with age; and that there is a higher proportion of postmaterialists amongst younger cohorts than amongst older ones, reflecting the more secure living conditions in which the former have been raised. Furthermore, taking the 17 regions as units of analysis, it was found that the proportion of postmaterialists in each region at present is better correlated with *per capita* income during the 1960s than with that of the 1990s, which seems an adequate verification of the "socialization hypothesis" (the values of today's adults were formed thirty years ago, when they were youngsters).

Postmaterialism appears to be the emergent set of values for societies which, having attained a high level of economic development, seek an improvement in the quality, rather than the quantity of life, through greater social participation, greater concern about the physical environment, etc. However, the question that needs to be asked is why populations in more developed societies have turned more postmaterialistic, in-

stead of seeking more of the same (economic growth) or any other option.

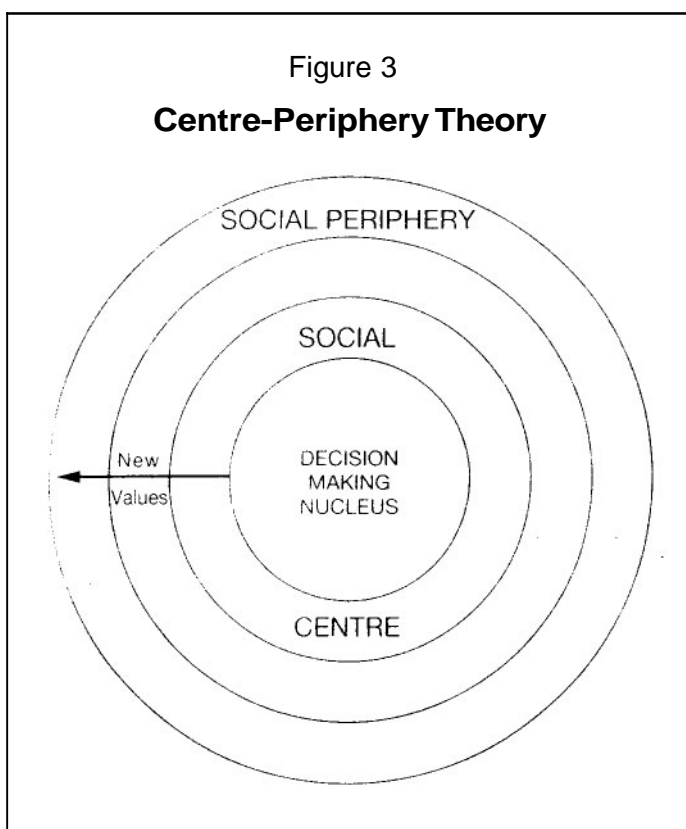
In relation to this question, this paper argues that postmaterialism is the cultural response by more developed societies to currently prevailing conditions. In fact, one could even go so far as to suggest that the very success of industrialized societies in achieving ever higher levels of living for ever larger proportions of their populations has resulted in a deterioration of the environment of such magnitude that it has become a real threat to the survival of humankind. Therefore, postmaterialism, as a system of values that gives lower priority to economic growth and higher priority to the protection of the environment, is precisely the system of values required to respond to this new world situation. Social ecosystem theory would then provide an adequate theoretical framework of reference to explain why postmaterialism, and not any other alternative system of values, seems to be emerging everywhere.

Inglehart has successfully predicted and verified that as societies move towards higher levels of development they become more postmaterialistic. He has further demonstrated that, within each society, social groups that have attained economic and physical security earlier are also the ones showing higher proportions of postmaterialism.

Important as they may be, however, socioeconomic conditions, whether at the level of groups or at the level of individuals, are not the only explanatory variables for the change towards postmaterialism. Individuals and societies with similar objective socioeconomic conditions show differences in their degree of postmaterialism, apparently due to some other variables that seem to be related to "centrality" of the unit within a particular system (worldwide, societal or community level),

The center-periphery theory, as developed by Galtung, would offer an adequate explanation for the emergence of new values in society and for their transmission. According to such a theory, individuals, groups or even societies which occupy more central positions in the social system tend to be more informed, to have more

opinions, to participate more in what goes on in their societies and to have greater access to power and control mechanisms. Thus, they tend to be more at the "sending" than at the "receiving" pole of the communication process. New social values, no matter where they originate (whether in the social centre or in the periphery), will only achieve social relevance if any of the groups in the social centre (which is far from homogeneous) adopts them. Later, the social centre will transmit the new values to the rest of society, until they reach the social periphery (Galtung 1964, 1976; van der Veer 1976; Díez-Nicolás 1966, 1968, Fig 3).



From this theoretical perspective, postmaterialism as the new system of values would first be found in the social centre, since individuals and, to that effect, societies – which have more central positions will have achieved greater economic and physical security earlier. Therefore they will also have perceived earlier the negative and even threatening consequences of industrialization, thus realizing the need to protect the environment.

The data for Spain significantly demonstrated that "social position" (i.e., centre-periphery positions) was a better predictor of postmaterialism at an individual level than mere socioeconomic status. Furthermore, the degree of information proved to be a crucial intervening variable (Díez-Nicolás 1992).

3. National Priorities on Economic Growth vs. Protection of the Environment

On the basis of around 65,000 personal interviews collected through national monthly surveys from October 1988 to February 1994, with samples of 1,200 individuals each, representing the Spanish population aged 18 years and over, an attempt has been made to test some of the hypotheses formulated above.²

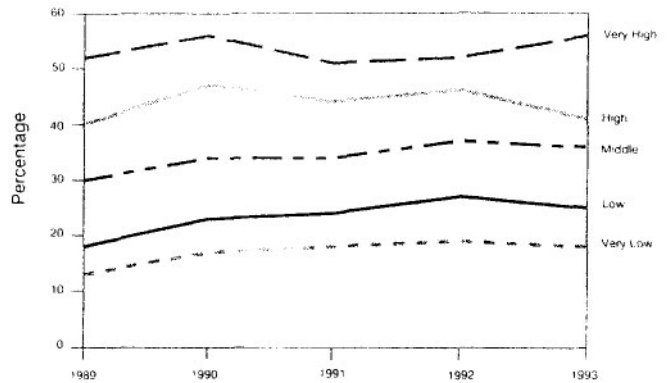
The proportion of postmaterialists in Spain showed a trend of steady increase from October 1988 till the end of 1992, not without small short-term fluctuations. It varied between 22 per cent to 29 per cent until May 1989, and maintained itself above 30 per cent (except for two months) since that date until the end of 1992, almost peaking at 40 per cent in September of that year and again in January 1993. From this date onwards, the trend showed a steady decline towards the level of 30 per cent, which might be a consequence of a greater social perception of the economic crisis which characterized the Spanish economy throughout 1993. Nevertheless, the long-term trend, even for such a short period, showed a tendency for postmaterialism to increase steadily from October 1988 to January 1993. The important fact is that the social awareness of an economic crisis during 1993 was matched by a clear and significant short-term decline in postmaterialism.

In a comparison of about forty countries, Spain's proportion of postmaterialists fits quite well with what could be expected in view of its present level of economic development (Inglehart 1993). On the other hand, the trend over the past six years showed a slight but clear tendency for postmaterialism to increase, although a short reversal of that trend seems to have occurred dur-

ing 1993, apparently related to the most important recession suffered by the Spanish economy in the past decades. The two findings seem to confirm Inglehart's hypothesis that the long-term trend towards increasing postmaterialism is compatible with short-term fluctuations and even reversals due to specific events. If, as expected, Spain's economic recession gives way again to some economic growth in 1994, one would expect also a return to the long-term trend of increasing postmaterialism in 1994.

Assuming, as we have, that postmaterialism is an emerging value orientation, one would expect it still to be sustained by a minority of the population (it is a value orientation "going into" society); one would also expect postmaterialism to be more accepted in the "social centre" than in the "social periphery". Data have demonstrated that postmaterialism continues to be a minority value orientation among Spaniards. Indeed, on the basis of more than sixty monthly national surveys, the proportion of postmaterialists has never been over 40 per cent. nor below 20 per cent. Furthermore, when the data are aggregated by complete years, a very strong and significant positive correlation between postmaterialism and social position becomes evident, the proportion of postmaterialists in the "social centre" being consistently over 50 per cent, twice as many as in the total population (Fig. 4).

It must be pointed out, however, that the ratio between the proportion of postmaterialists in the



Source: ASEP Data Bank. 1989-1993

Figure 5. % Postmaterialists by social positions 1989-1993

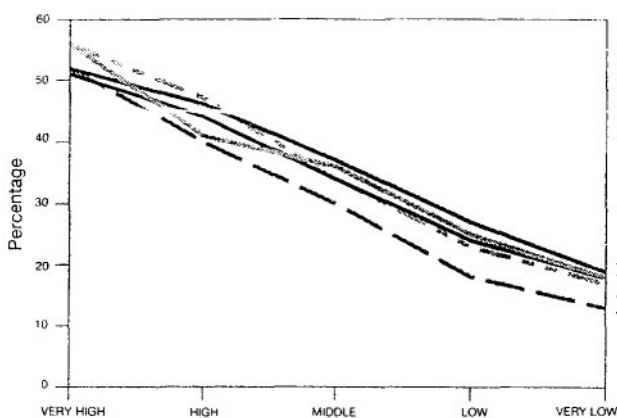
"social centre" and that in the "social periphery" steadily declined from 4.0 in 1989 to 3.2 in 1990, 2.8 in 1991 and 2.7 in 1992 to rise again to 3.1 in 1993. indicating an increase in the relative difference between "social centre" and "social periphery". apparently explained by a certain increase in postmaterialism amongst the former and a slight decrease amongst the latter (Fig.5).

It must also be underlined that the differences in the distribution of each year's aggregated sample by social position are almost negligible (less than 3 per cent points when comparing any two distributions), a finding that confers reliability on the representativeness of the samples and on the scale of social position:

Year	N=	Total	Very/High	High	Middle	Low	Very Low
1989	(12,059)	(100)	(2%)	(14)	(45)	(35)	(4)
	% PM	27	52	40	30	18	13
1990	(13,363)	(100)	(2%)	(15)	(45)	(34)	(4)
	%PM	32	56	47	34	23	17
1991	(12,125)	(100)	(1%)	(12)	(46)	(36)	(4)
	% PM	32	51	44	34	24	18
1992	(13,354)	(100)	(1%)	(13)	(45)	(36)	(4)
	% PM	34	52	46	37	27	19
1993	(13,362)	(100)	(1%)	(12)	(46)	(36)	(4)
	% PM	32	56	41	36	25	18

Source. ASEP Data Bank, 1989-1993

Table 1: Postmaterialism by social position, 1989-1993



Source: ASEP Data Bank, 1989-1993

Figure 4. % Postmaterialists by social position, 1989-1993.

	1989						1990						1991			
	Total	Very High	High	Mid	Low	Very Low	Total	Very High	High	Mid	Low	Very Low	Total	Very High	High	Mid
	(12,059)	(227)	(1,729)	(5,452)	(4,188)	(463)	(13,683)	(222)	(2,020)	(6,059)	(4,531)	(531)	(12,125)	(156)	(1,509)	(5,625)
...r within nation	60%	50%	52%	58%	65%	63%	58%	39%	50%	57%	63%	66%	62%	41%	54%	61%
...more participation in important																
...l or political decisions	32	49	43	36	24	15	34	51	45	37	27	21	36	43	47	39
...creases	65	52	56	64	70	67	64	55	56	62	70	66	60	61	53	58
...om of expression	30	45	42	33	22	15	32	49	42	36	24	18	33	52	41	35
...gh level of economic growth	37%	36%	40%	39%	33%	28%	34%	41%	38%	36%	32%	24%	36%	39%	38%	38%
...Armed Forces to																
...ain s security	14	7	10	14	15	14	14	7	10	15	15	16	21	8	15	21
...more participation in																
...isions related to their work																
...unity in which they live	34	37	42	37	27	19	34	43	41	36	29	22	37	37	40	39
...onment	36	52	41	38	31	23	45	57	51	46	40	37	46	52	53	48
...table economy	49	46	52	50	48	39	48	47	49	49	46	36	43	58	46	44
...ency	60	42	50	59	67	66	55	37	44	54	61	64	55	38	46	53
...ards a less impersonal																
...han society	27	43	35	28	24	24	29	38	35	29	27	26	27	39	35	28
...ards a society in which ideas																
...ortant than money	17	28	22	17	13	10	19	27	23	19	16	16	17	27	22	18

Data Bank, 1989–1993

* Items measuring

ational priorities for Spain by social position, 1989 1993

	1992						1993					
	Total	Very High	High	Mid	Low	Very Low	Total	Very High	High	Mid	LOW	V
	(13,354)	(169)	(1,787)	(6,049)	(4,796)	(552)	(13,362)	(181)	(1,614)	(6,185)	(4,828)	(5
in nation	58%	46%	49%	55%	64%	67%	56%	37%	47%	54%	62%	6
participation in important												
political decisions	39	53	47	42	32	26	40	59	50	42	34	3
ses	64	56	56	61	70	73	65	48	58	63	69	7
f expression	33	39	42	36	27	21	33	51	38	36	28	2
level of economic growth	34%	38%	36%	35%	31%,	29%	39%	36%	40%	41%	38%	3
ed Forces to												
s security	18	12	13	17	21	18	15	8	11	15	16	2
participation in												
ns related to their work												
in which they live	38	43	44	41	34	26	38	52	41	40	34	3
ent	48	55	53	49	46	43	44	45	48	46	41	3
economy	50	49	52	49	49	47	54	52	57	54	54	5
y	58	33	46	55	66	72	55	36	45	52	62	6
a less impersonal												
society	27	39	32	28	24	20	27	40	32	28	25	2
a society in which ideas												
nt than money	15	26	18	16	14	13	16	28	20	17	14	1

Bank, 1989–1993

Items measuring post

ued) National priorities for Spain by social position 1989–1993

The data seem to confirm the hypothesis that the “social centre”, having attained greater security earlier than the “social periphery”, has become conscious of the threat that too much economic growth may pose to the environment, and has turned to a more postmaterialistic orientation in greater proportions, as predicted. The slight but clear decline of postmaterialism during 1993, which has been accounted for by the decline of postmaterialism in all social positions except the “social centre”, would seem to support this interpretation even more strongly, given the economic recession during the same year.

With a view to testing the theory further, we have examined separately the twelve items developed by Inglehart to measure postmaterialism. Taking into account the first two national goals chosen by each individual in the first list, and the first three mentioned in the second list, it is clear that the eight postmaterialistic items are positively related to social position, while six of the eight materialistic items are negatively related to social position. The pattern is identical in the five years which have been compared, with very minor exceptions. In general, postmaterialistic items are chosen in the “social centre” by significantly larger proportions than in the “social periphery”, while the opposite relation is observed with respect to materialistic values.

Clearly, both the “social centre” and the “social periphery” are more concerned about “maintaining order within nation” and “fighting price increases” than about “giving more participation...” and “protecting freedom of speech”. In *relative terms* the “social centre” is more concerned than the “social periphery” about political participation and freedom of speech (postmaterialistic values), whereas the “social periphery” is more concerned than the “social centre” about order and inflation (materialistic values).

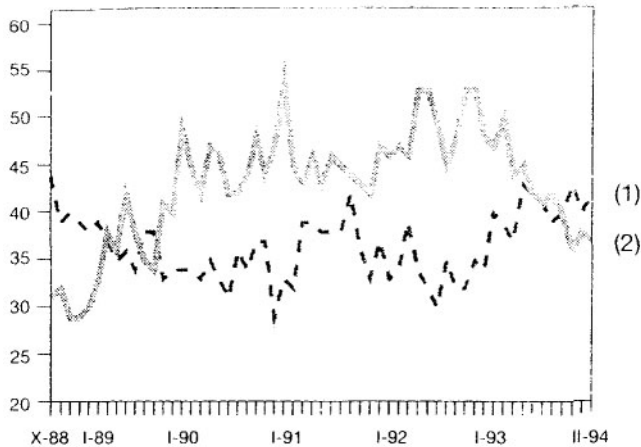
The same pattern is observed with respect to the items in the second list, with two exceptions, both concerning economic issues: “maintaining high economic growth” and “maintaining a Stable economy”. The pattern for “high economic growth” shows a positive relation with social position in 1990, 1991 and 1992, but a non-linear,

(ie., curvilinear) relation with social position in 1989 and 1993. This pattern would suggest the high prevalence in society at large of this materialistic value for a long time, and possibly a relative loss of importance, starting at the social centre and continuing, at a lower rate of decrease, at the social periphery. This might explain the very small gradient of the relationship between the proportion choosing this item and social position (an almost horizontal pattern), and the more than proportional decline of that proportion in the “social centre”, both in 1989 and 1993, which might be interpreted as a change in the relationship from a positive one during the industrialization and high economic growth years (1960s and 1990s) to a negative one within the following few years. The changing pattern is even more evident when considering the percentage choosing “maintaining a stable economy”, where a curvilinear relation with social position may be observed in all five years.

The positive relation between postmaterialism and social position is supported by the data, as predicted, both when the compound index or the twelve individual items are used. And the two exceptions that appear seem to be values on the process of change, in the sense that they are losing relative importance in the “social centre”, while maintaining it in the “social periphery”. Were this interpretation accurate, the relation of these two materialistic items with social position should become negative within the next few years.

A final test of the theory has been made by comparing the priority granted to the two items which seem more representative of the two poles of the materialistic-postmaterialistic continuum (i.e., high economic growth and protection of the environment, Fig. 6).

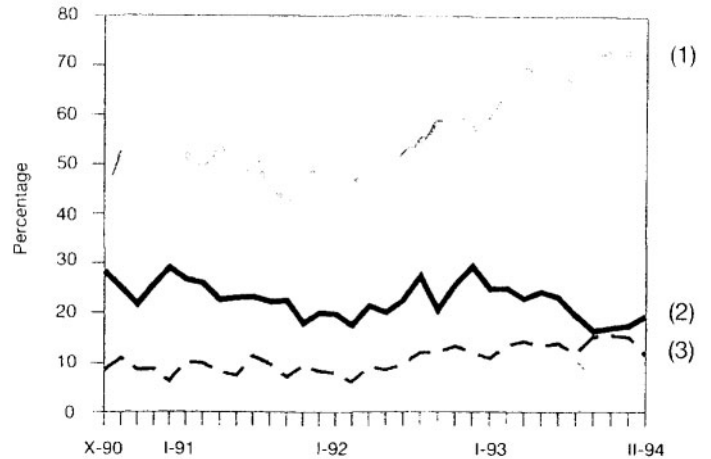
Looking at the proportion of the total sample who selected each one of these two national goals, one notices that high economic growth was given higher priority than protection of the environment from October 1988 until April 1989; from then on, however, environment overtook economic growth. Though there are short-term fluctuations (owing to the monthly periodicity and,



(1) Maintaining a high level of economic growth
(2) Protecting the environment

Source: ASEP Data Bank, 1988-1994

Figure 6 National priorities for Spain.



(1) To reduce unemployment
(2) To protect the environment
(3) To guarantee economic growth

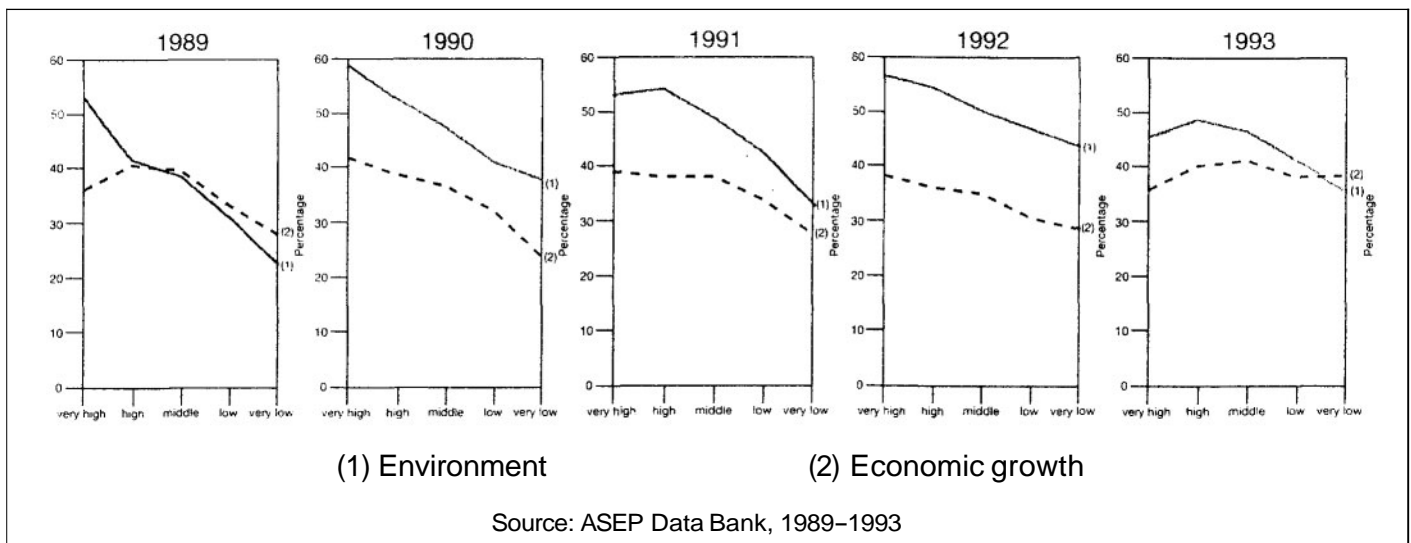
Source: CIRES Data Bank, 1990-1994

Figure 7 National priorities for Spain

probably, period effects), the pattern just described persisted till the end of 1992. However, the proportion of those mentioning the environment has declined steadily since then, as the proportion mentioning economic growth has increased steadily. to the point that since autumn of 1993 economic growth has again been given higher priority than the protection of the environment. The economic recession of 1993 would seem to explain, once more, this reversal of the trend, which would account for the slight decline in postmaterialism to which we have already referred above (Fig 7)

Data from another source, also consisting of national monthly surveys based on samples of 1,200 individuals representing the Spanish population aged 18 years and over, and using a variation of Inglehart's postmaterialist scale, have been used for comparison.³ This time series is shorter (October 1990 to February 1994), but it confirms the priority granted to the environment over economic growth, though the difference between the two also decreases at the end of 1993. Nevertheless, the reversal of the pattern is likely to be less clear with this data set, a possible explanation being the inclusion of the "reducing unemployment" item in this scale. Given the

Data from another source, also consisting of na-



(1) Environment

(2) Economic growth

Source: ASEP Data Bank, 1989-1993

Figure 8. Preference for high economic growth or protection of environment by social position, 1989-1993.

high increase in unemployment in Spain throughout 1993, it is not surprising that the priority given to this national goal should have increased very rapidly during the year, thus limiting the potential rise of the priority granted to economic growth (Fig. 8).

Finally, priorities given to economic growth and the environment have been analysed by social position, with data aggregated by complete years. As might be expected from previous discussions, the environment was already given higher priority than economic growth in 1989 *only among the "social centre"*, though both items showed a positive relation with social position, for reasons already referred to above. During the years 1990, 1991 and 1992, the environment was granted higher priority than economic growth by all "social positions". But in 1993, probably due to the economic recession, a decline in the preference for protection of the environment is observed in all social positions, and relatively more in the "social centre" probably *more aware* of the importance of the current economic crisis. At the same time, there is a significant increase in the preference shown for high economic growth, especially in the "social periphery", which most likely *suffers more* the consequences of the recession, to the point that, amongst those in the "social periphery", economic growth is again given higher priority than environmental protection. It should also be noted that, in 1993, the relation of economic growth and social position seems to be negative, although the gradient is still small. Nevertheless, it represents a clear change in the expected direction.

Current concern about the environment, one might conclude, does not seem to be just a temporary fashion, but rather a collective response to the situation created by high economic growth sustained over several decades. In this respect, it was expected that the "social centre" would internalize this concern earlier than the "social periphery".

On the basis of an unusual volume of survey data, sufficient evidence has been provided here to support the main theoretical assumptions derived from social ecosystem theory, centre-periphery theory, and postmaterialism theory.

Notes

- ¹ The *World Values Survey* was conducted in 42 countries around 1990, and it was coordinated by Prof. Ronald Inglehart. A new WVS is currently being planned for 1995 in more than 50 countries.
- ² *La Opinión Pública de los Españoles* is a monthly national survey conducted by Análisis Sociológicos Económicos y Políticos (ASEP). About half the questionnaire consists of questions and indicators which are the same every month and the other half may vary from month to month. The questionnaire comprises five regular sections: consumption and economic attitudes and behaviour, political attitudes and behaviour, mass media consumption, current affairs and background data.
- ³ This other monthly national survey is conducted by *Centro de investigaciones sobre la Realidad Social (CIRES)* sponsored by Fundación Banco Bilbao-Vizcaya Caja de Madrid and Bilbao-Bizkaia-Kutxa. The main topic of each month's survey varies from month to month but the questionnaire includes more than 50 variables which are repeated every month.

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Beatrix Sitter-Liver, "idioms", 1993, larix, watercolour drawing, 36x48 cm