

Postmaterialism and authoritarianism in Hungary: Evidence from a two-generations study*

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Abstract

The paper compares the concepts of post-materialism and authoritarianism in terms of their relationships with theoretically relevant dependent and independent variables. The research is based on a survey of a random sample of 400 adolescent children and the same number of their parents from two Hungarian cities. The results indicate that the two concepts are largely unrelated in Hungary. While the youth proved to be somewhat more authoritarian than the parents, there are no intergenerational differences in postmaterialism score. Socialization and family status have a stronger impact on authoritarianism than on post-materialism. The affluence of parents does not make their children more post-materialist, even though it makes their own values skewed somewhat towards post-materialism. Authoritarianism is more closely related to various indicators of political behavior and preferences. Most expectations based on the postmaterialist hypothesis were not confirmed. Authoritarianism seems to be more useful concept for political research, at least in the post-Communist context.

Key words: authoritarianism, postmaterialism, political socialization, Hungary.

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In political science there seems to be a consensus about the declining role of traditional socio-economic cleavages in explaining political behavior, but there is much less agreement about what interests or values have replaced the old cleavages. Postmodern theorists and also many empirical sociologists see no new order arising. They speak rather about general de-alignment, particularization, de-massification, and fragmentation of political behavior (for empirical evidence see Franklin et al. 1992). As opposed to this view, the theorists of postmaterialism see a new cleavage taking over the role of the traditional divisions. According to this school, growing affluence, the absence of wars and the high level of education turns an ever increasing number of people towards post-materialist values (Inglehart, 1971, 1977, 1990). The growing governmental involvement in social and economic matters, the expanded educational opportunities, and the expansion of informational resources led to secular growth of political skills and resources, appearance of new issues, and non-conventional modes of participation. All these phenomena are usually labeled together as “new politics” (cf. Dalton, 1988). In the new politics those citizens and political forces who give priority to self-actualization, aesthetic needs, global responsibility and full scale democratization challenge those who keep on emphasizing economic growth and physical security. While the classic issues related to redistribution of wealth may still dominate official party politics, the electorate is more and more polarized along this new dimension.

The general success of the concept of postmaterialism is well indicated by the fact that most contemporary analysts of party systems include postmaterialism as a major defining dimension. While some observers find the power of post-materialist vs. materialist opposition falling behind the influence of class, religion and left-right identification in terms of affecting the vote (Oppenhuijs, 1995, Middendorp, 1989, 1992), others argue that at least in such countries as The Netherlands postmaterialism both shapes and rivals Left-Right identification in importance (Van Deth and Guerts, 1989). Inglehart’s (1984) original claim was that the very meaning of left and right is gradually changing, being increasingly filled with connotations of the materialist-post-materialist value opposition.

There are many scholars, however, who prefer to label the new dimension that crosscuts socio-economic left-right opposition with the old labels of authoritarianism and libertarianism. The relationship of the concepts of postmaterialism and authoritarianism seems to be rather complex. Inglehart refers to Adorno *et al.*'s (1950) authoritarianism as a potential alternative to his own model. He dismisses the challenge embodied in this rival concept, however, rather swiftly, pointing at the

methodological problems of TAP and at the fact that the early socialization theory does not explain the significant difference between countries and generations. (Inglehart, 1977, pp. 66-69; 199, pp. 70-71).¹ In addition, he obtained that “authoritarianism, as originally operationalized, has a poor empirical fit with Materialism/Postmaterialism” (Inglehart, 1997, p. 48).

There is, nevertheless, a number of reasons to expect rather close relationship between the two value orientations. Post-materialists are tolerant because they take survival for granted, while materialists feel threatened in their basic existence, so they follow strict community rules, sanction deviant behavior and respect authorities (Flanagan, 1987, Inglehart, 1990). Authoritarians, on the other hand, should be conservative, and, therefore, less supportive of anything new, especially radical parties and movements. They should be definitely embarrassed with unconventional speeches and public actions that challenge existing social hierarchies - activities that characterize post-materialists so much.

Additional similarity between the two concepts is revealed if we scrutinize their content more closely. For example, antiintraceptiveness is considered one of central components of the authoritarian syndrome (Adorno et al., 1950). It is expressed as opposition to subjective, psychological life and introspection, rejection of art and imagination, and through emphasizing the material side of life and material values. Thus, postmaterialist emphasis on freedom of expression subjectivity, and related values, obviously is in contradiction with antiintraceptiveness.

Some of the items that Inglehart uses for measuring postmaterialism sound very much like items used in authoritarianism scales. Actually, it is often noted that Inglehart's “materialist” items can be grouped in two categories. On the one hand there are those, like punishment of terrorists, stronger defense, which are close to the classic concept of authoritarianism, while others, like the desire for higher wages or the strong preference for an aesthetic, undisturbed environment, are further from it. Flanagan (1987) claimed that Inglehart simply mixed together the essentially distinct materialist and authoritarian items, and created thus a serious conceptual confusion. The scale classifies authoritarians as materialists, even though there may exist both libertarian and authoritarian materialists, as well as materialist and non-materialist authoritarians.

The critiques argue not only that Inglehart mixed two value clusters, but that among the two group of values authoritarian attitudes form the really important cluster. According to Middendorp (1989, 1992), for example, the authoritarian element of the postmaterialism scale is in fact the more relevant for electoral behavior. As he put it: "The political 'kernel' of postmaterialism seems to be its libertarian authoritarian aspect" (Middendorp 1992, p. 257).

¹ A number of researches found serious methodological problems also with Inglehart's postmaterialism scales (e.g., Evans et al., 1986, Flanagan, 1987, Clarke and Dutt, 1991).

The relative explanatory superiority of authoritarianism, or at least the difference between authoritarianism and postmaterialism is also highlighted by Flanagan's observations. While he finds that the materialist - non-materialist opposition, understood in the narrow sense of the words, describes two stagnant class cultures, a genuine world-wide revolution is detectable along the libertarianism-authoritarianism axis, the new generations taking more tolerant position in social issues than their parents (Flanagan, 1987).

On the surface the proposition that the distribution of *personality types* can be radically different from one generation to another might appear as controversial, unless broader social transformation includes also changes in functioning of the major socializing agencies (e.g., Lederer, 1993). Moreover, for most political scientists the problem of the changing distribution of personality types does not exist, since they simply employ the common sense meaning of authoritarianism as the opposite of enlightened, tolerant and democratic views. The disregard of deeper-level psychological mechanisms is general, since Inglehart also dropped ("silently") the reference to Abraham Maslow's need hierarchy model and replaced it with the model of diminishing marginal utility. And if one treats postmaterialism and authoritarianism as two clusters of values, there is no *a priori* reason to suspect one to be more sensitive to age and generation than the other.

Notwithstanding the labels, the two propositions tally when they claim that interests are gradually losing against values and psychological characteristics. The increase of the size of the educated electorate, the growing tension between multicultural reality and ethnonationalist identity, the diminishing role of class conflicts and the growing similarity of the parties' economic programs should lead to further rise of the relevance of value-conflicts as opposed to distributional type of tensions. The general decline in conformity, religiosity, industrialist work ethic and respect for authority, and the growing emphasis on self-actualization, pursuit of leisure activity, equality, and tolerance is well documented across many Western countries.

The obvious counter-argument against describing the cultural transformation with Inglehart's terms is based on the recent rise of traditionalist and nationalist movements in both East and West. According to Inglehart, however, these developments do not necessarily contradict the post-materialist thesis. As he points out, the value-based politics of the post-industrial era may strengthen the much older value-based cleavages, rooted in the pre-industrial era. The controversial development is well illustrated by the decline of the legitimacy of nation-states and the growing relevance of "tribal" loyalties. Moreover, Inglehart (1971) offered an interesting interpretation of a relatively high

postmaterialism among separatist nationalist parties in Belgium as reflection of the need for belonging (a 'higher' need in Maslowian model) of postmaterialists.²

This reasoning shows that Inglehart stretched his conceptual framework to the limit in order to accommodate reality. One wonders whether the original focus on the appreciation or non-appreciation of material values is of much use. Where militaristic, religious fundamentalist or chauvinistic forces oppose the left-libertarian agenda (multiculturalism, sexual equality, etc.), one needs a bit too much imagination to label any of the opposing camps as more or less materialistic. The possession of material goods and physical security might have shaped these values and attitudes, but the values and attitudes themselves have nothing to do with the dilemma of materialism versus non-materialism.

The emphasis on material goods is at odds not only with the orientation of the present-day extreme right but with the traditionalist conservatism too. Inglehart seems to underestimate the weight of old-style conservative orientations, which are certainly not post-materialists but which would never regard money as the most important value – to cite one of Inglehart's materialist items.

Based on the above presented argument, if the two value-clusters prove to be closely related, the authoritarianism label seems to be the more appropriate description of their referent. If they behave differently, however, one may evaluate their utilities contrasting them with other relevant variables. A concept that has no detectable link to other social or political variables might refer to an interesting phenomenon but has little relevance in building explanatory models. If, on the other hand, the empirical referent of a concept is too closely linked to other, well established concepts, one must equally question its utility. In order to map the differences between authoritarianism and postmaterialism and to evaluate them, the paper examines the following questions: 1. How large is the attitude gap between parents and children and how well postmaterialism and authoritarianism are transmitted within the family? 2. How thoroughly are these attitudes embedded in the socio-cultural environment? Is the relationship to potential explanatory variables in accordance with the original theoretical models? 3. Finally, how large impact the respective value-orientations have on such politically relevant phenomena as party preference, participation in politics, and left-right identification.

² Similar findings are reported for Northern Ireland, where Sinn Fein supporters are the most postmaterialist, although they are not particularly well off in economic terms (Curry and O'Connell, 2000).

The following analysis will be conducted on a data-set coming from a post-Communist country, Hungary. This regional-political status of the country must have important implications for the detected relationships.

Shall we expect a politically relevant post-materialist dimension in the post-Communist world? The Eastern European societies could be fertile ground for post-materialist initiatives. Suffice it to point at the monumental ecological problems, electoral fluidity, weakness of traditional social bounds, relevance of values in political behavior, lack of agreement concerning traditional religious social and sexual norms, increasing portion of labor force working in tertiary sector, relatively well educated citizenry, etc. The ideological “baggage” of Easterners could also help. True, the official ideology of Communism was called “scientific materialism”, but it had in fact an extremely idealistic and utopian character, preaching the subordination of the individuals’ material needs to higher social goals.

Yet, post-materialist issues like nuclear energy, sexual equality or disarmament, do not feature prominently in the political battles of the region and economic growth is regarded by almost everyone as number one priority. Ecological (i.e., post-materialist) movements were influential in the late 1980's and have contributed to the fall of the Communist regime, but they almost completely disappeared from the scene. This state-of-affair can be well explained by such factors as the relative poverty of these societies and by the rapidly growing crime rates.

In fact, Inglehart admits that the less developed part of the world might exhibit tendencies that diverge considerably from the Western pattern. While the Western citizen is looking for roots and belonging, the young Easterners want to get rid of too much community and concentrate on materialistic goals. Kitschelt (1992), for example, argued that libertarians in the Eastern Europe should be pro- rather than anti-market, or in Inglehartian words, postmaterialist should be also materialists.

Authoritarianism, on the other hand, is likely to be present and to be related to other political variables, since Hungary is one of those countries where political debates focus on cultural and not on economic issues (cf., Markowski, 1997, Enyedi and Todosijević, 1999a).

Method

Sample

The study is based on a random sample of 400 adolescents, aged 16-17, and their parents. One parent of every adolescent respondent was interviewed, so the total sample included 800 respondents. Sexes were equally represented among the children - 48.5% of them were girls; among parents, however, only 22.8% respondents were of the female sex. Median age of the children was 16 (83.5% were born

in 1981, the rest in 1980). Average age of the parents was 44 years, with standard deviation of 5 years and six months. Thus, most of the parents belong to post-war generations - only 6.8% of them were born before 1946. In the period of economic growth in socialist countries, i.e., between 1950 and 1960, more than 70% of our parents-respondents were born. The sample is representative in terms of the types of schools that exist in these two cities.

The study was conducted in November and December of 1997, in two Hungarian cities, Sopron and Salgótarján. The first is a prosperous, tourist city in the West, while the other one is a working class town in the North, with an especially high unemployment rate. Equal number of interviews was collected in both cities.

Measures

Postmaterialism. We used standard shortened, four-item postmaterialism scale. Respondents had to chose the first and second option as their answer to the question:

What is the first (second) most important thing to be done in the society?

The options are:

1. *to maintain order;*
2. *to secure greater democracy;*
3. *to curb inflation;*
4. *to secure greater freedom of speech.*

Answers 1 and 3 are indicators of materialist, and 2 and 4 of post-materialist value orientation. Respondents who chose two materialist or PM items are considered as materialists or post-materialists. Those who chose one materialist and one PM item are regarded as *mixed* cases. In the presented analyses, we used standard postmaterialism (PM) index, where value 1 is assigned to materialists, 2 to mixed types, and 3 to postmaterialists.

Authoritarianism. We use 25-item authoritarianism scale, based on the Adorno et al.'s F scale and Altemeyer's RWA scale (Altemeyer, 1981, 1988). The scale was presented in Likert format with 4 degrees of dis/agreement. Answer option of 'do not know' was assigned intermediate value (1 stands for 'strongly disagree', 4 for 'strongly agree', while 'do not know' received the value of 2.5). Sample item: *The most important virtues a child has to learn are obedience and respect of authorities.*

Throughout the analysis we operationally define authoritarianism as the first principal component of the 25-item AUT scale (the principal component accounts for 23% of variance of the

total scale in case of parents, and for 15.6% among children). Alpha reliability of the AUT scale on the youth sample is .74, while on the sample of parents it is .84.

Results and discussion

Relationship between authoritarianism and postmaterialism

Mean authoritarianism scores of materialists and post-materialists differed in the predicted direction, but the relationship was far from deterministic. Among adults the Pearson correlation was $r=-.14$ ($p<.01$) among their children $r=-.12$ ($p<.05$). These results indicate that the two variables tap rather different phenomena. Thus we could conclude either that the two concepts are quite weakly related, or that some of the scales lack reliability and validity.

Generational differences

The contrast of the attitudes of younger and older generations promised to reveal large differences, since the conditions of those socialized in the eighties and nineties substantially differs from the conditions of the forties and fifties. The differences were expected to be large, but their direction was difficult to predict.

Since the economic conditions of the adolescents were better in absolute terms and because they socialized in a more democratic atmosphere, one could expect lower level authoritarianism and higher level of postmaterialism among them. On the other hand, they are confronted with a fundamental confusion of moral values, a general state of anomie, and for them the extreme right forces are already available models of identification. These factors may lead to higher level of authoritarianism. Materialist outlook can also prevail among them since – as opposed to their parents - they did not grow up in a steadily improving economic environment but in a crises-ridden period, characterized by a hitherto unknown level of insecurity in areas like job-market or welfare. Table 1 shows detailed distribution of parents' and children's answers to postmaterialism items.

Table 1 abut here

We see that both students and parent chose a materialist item 'maintain the order' as their first choice, but parents more frequently so (54.4% comparing to 38.0% among students). The most frequent second choice is also the same for students and parents, and endorsed virtually equally frequently (31.8% of students, and 30.7% of parents). Thus, both students and parents tend to be predominantly materialist in orientation, though parents more so. In this sense, these findings are in accordance with Inglehart's value differences between generations.

However, the analysis should concentrate on the PM index, as described above, because it is the method applied in most studies on post-materialist values. As it can be seen in Table 2, mixed value orientation is far the most frequent, just as, for example, in the USA and Germany (Trump, 1991).

Table 2 abut here

There are slightly more mixed cases and post-materialists among students than among parents (60.1% and 8.8% respectively among students, and 56.6% and 7.1% among parents), and slightly smaller proportion of materialists among students (31.2%) comparing to parents (36.2%).

Thus, both students and parents are much more likely to be materialists than postmaterialists, though parents more so. Among the children materialists outnumbered postmaterialists 4 to 1, while among the parents there were five times more materialists than post-materialists. However, the difference between generations is not significant ($p>.10$). In spite of the fundamentally different conditions during the socialization of these different generations, their value orientation is largely similar. Inglehart's claims, therefore, are not supported by our data: in our sample, parents and children are about equally postmaterialist, or better to say: materialist.³

At is was stated above, Authoritarianism is operationalized as the first principal component of the AUT scale separately for parents and children, so because such variable is standardized, its mean and standard deviation are standard values. However, if factor analysis is performed on joint parents and children samples, then the evidence shows that children on average are somewhat more authoritarian ($t=2.58, p<.01$).

It may be more instructive to compare parents and children in their answers to individual items. Such comparison is presented in Table 3.

Table 3 abut here

³ What has to be taken into account is rather small proportion of postmaterialists, especially when PM index is correlated with other variables. It is not very likely to obtain strong correlation with any other variable if one variable has only three values, and so skewed distribution. However, such distribution of PM index among adolescent respondents is not a Hungarian specialty. Trump (1991) for example, reports almost identical distribution of the PM index among a comparable USA sample (though he reports very different distribution for German respondents, but in this case his respondents are gymnasium students).

Significant difference exists in 10 authoritarianism items. The youngsters obtained higher scores on nationalist items (items 6 and 10), and lower on a related ‘multiculturalist’ item (item 23). Also, children scored higher on several authoritarian aggression items (items 2 and 14) and one authoritarian submission item (12). Parents scored higher on authoritarian conventionalism items (1, 3, and 8), and one racism item (item 21). These results seem intuitively plausible. Nationalism became more popular among the youth, perhaps partly due to internationalist climate in their parents’ formative years, and partly due to the emergence of the extreme right, nationalist movements popular among certain youth groups.⁴

Aggressiveness is in general related to age, and therefore parents scored lower on these items. Likewise, higher conventionalism of parents may be an age effect. Thus, our findings present a picture of intergenerational differences in authoritarianism that is more complicated than a simple scheme of generational differences in postmaterialist values. It seems that older generations are more authoritarian in some respects (e.g., conventionalism), and less in other (e.g., nationalism, aggressiveness). In addition, parents’ age was not related to their level of authoritarianism.

Socialization and values

Intergenerational transfer of postmaterialism

We now turn to investigating the intergenerational similarities in authoritarianism and postmaterialism. Inglehart has emphasized the role of broader economic and social conditions for development of postmaterialist values. But, since socialization hypothesis plays a role in both theories, the expectation is that the parents and children’s indexes will correlate, but that authoritarianism scores will show a stronger relationship.

The data only partly confirmed our expectations. The relationship between children and parents in their support for materialism versus postmaterialism is *not significant statistically* (Table 4). It is worth noting that no postmaterialist child in our sample has a postmaterialist parent. One could argue that materialist parents are relatively good at producing postmaterialist children because

⁴ Inglehart (1971) interpreted high postmaterialism among the Belgian separatists as expressing postmaterialist need for belonging. With reference to the present findings, we would offer another interpretation: anti-authority character of some separatist movements may disproportionately attract anti-authoritarians, and therefore postmaterialists - if we agree with Flanagan (1987) that postmaterialism is the same as libertarianism. Thus, majority nationalism should in general be more authoritarian/materialist, and minority nationalism more often postmaterialist and anti-authoritarian.

they create wealthy environment for their children, what compensates for the effect of their materialist example.

Table 4 about here

Zero-order correlation between PM index of parents and children is $r=.08$ (n.s.), and partial correlation coefficient, controlling for parent's education and income, is $r=.13$ ($p<.05$).⁵ Thus, parents and children do not resemble each other in their support for postmaterialist or materialist values, unless we control for the influence of common socio-economic conditions.

Work-values as an indicator of postmaterialism

It might be that for children aged 16 the question about social values is too remote. Therefore, we asked them to tell us what sort of satisfaction they expect from their future job. We asked the parents too, both about what are their major criteria for evaluating their own job and what sort of job they wish for their children. Those who chose "*high income*" and "*security*" were labeled as materialist, and those who chose: "*to be together with people I love*", "*to have a creative work*" or "*to have a variegated work*", as having post-materialist work values. The new measure of postmaterialism divided respondents into two groups of equal size, and in that sense it was statistically superior to the original measure. The socialization hypothesis was slightly better supported with this new measure.

The relationship was significant whether we compared the students' values with their parents' concerning their own job or concerning the desired job of the students (Table 5).

Table 5 about here

The relationship is stronger in the second case. But even in this case almost half of the materialist parents had postmaterialist children. In other words, the relationship is rather weak. Materialist parents are about equally likely to have both post- and materialist children. Postmaterialist parents are somewhat more likely to breed postmaterialist children. Thus, not everything is in the "formative affluence" (Inglehart), but there is something also in parents giving an example.

⁵ Note that control for SES increased correlation between PM of parents and children, although shared environment should contribute to their similarity.

Intergenerational transfer of authoritarianism

In case of authoritarianism, parents' and children's scores correlate more strongly: partial coefficient is $r=.39$ ($p<.001$). and zero-order coefficient is $r=.43$ ($p<.001$). Obviously, parents and children are considerably more similar in their degree of authoritarianism than in postmaterialist values. This corresponds to finding of other researchers (e.g., Jennings, 1984) who also found very modest evidence of intergenerational transfer of post/materialist values.

This part of the analysis resulted in two main findings: there is virtually no evidence on the direct socialization effect, or similarity between parents and children in their materialist-postmaterialist value orientations. This applies especially in case of PM index. If we employ one item measuring work values, then there is some evidence of the correlation between parents' and children's values. In case of authoritarianism, parents seem to be very influential factors in developing authoritarian traits.

Socio-economic background

PM is expected to be related to microeconomics indicators of economic conditions during one's formative years. Inglehart (1971) for example, reports non-surprising finding that lower economic strata are more materialist. Trump (1991) on the other hand, did not find correlation between postmaterialism and family unemployment history in German and USA students, and found weak *negative* relationship between postmaterialism and family income.

In light of such contradictory findings and theoretical claims, it is even more interesting to see what is the situation in Hungary. In order to perform relatively exhaustive test of the microeconomic effects on postmaterialism and authoritarianism, we used a number of different indicators, from parent's occupational category to educational level of parents.

Objective socio-economic background play less emphasized role in the theory of authoritarian personality. However, evidence shows that it is in fact sensitive to economic threat (cf. Rickert, 1998) and consistently negatively related to education (e.g., Schuman, Bobo and Krysan, 1992).

The first task is to examine the role of the family economic situation. In order to be able to create a usable frequency table, the variable 'family income', as reported by the interviewed *parents*, was divided into three categories. Those categorized as 'below average' reported family income below the lower quartile, the 'average' belonged to the inter-quartile range, and the 'above average' belonged to those who reported income above the limit of the upper quartile. It is important to note that parent's income is an indicator very close to the hypothetical "formative affluence" which Inglehart regards as the primary cause of the postmaterialist shift. Much closer than parents' education, or GDP, to mention just two measures frequently employed.

Table 6 shows the relationships between family income and students' PM index. The results are rather surprising, if we do not take into account that the Chi-square test is insignificant. Namely, it seems that students coming from families whose material status is *below* average tend to be more inclined towards PM values (10.5%). Similarly, students from families with average income are the most materialistic (36.2%), while students from the economically above-average families are mostly 'mixed', and rarely post-materialists (68.1% and 8.5%, respectively). On the other hand, those coming from families whose income is above average appear proportionally less frequently among materialists (their percentage of 23.4 is the lowest). Thus, Trump's (1991) finding that poorer are more postmaterialist and richer more materialist is not so exceptional.

Table 6 about here

How to explain this? Different possibilities exist. One is simply to treat the relationship as statistically insignificant, and to conclude that Inglehart was wrong, or that his theory does not apply to the Hungarian case. Another approach is to allow some freedom to imagination and speculation. In that case, one could suppose that those coming from poorer families are more inclined to postmaterialism as a kind of defense mechanism (rationalization). Being aware that without appropriate family background they have poor chances of upward economic mobility, and in order to fight the sense of frustration they de-evaluate material success and support the so called 'humanistic values'. This is then expressed in their slightly higher PM index. In other words, their values betray rationalization, compensation and/or sublimation. Instead of the expelled Maslow it might be useful to bring Freud back.

In accordance with these speculations is the fact that students from economically average families have the most materialistic orientation. They perhaps see some chances for themselves for economic improvement and therefore express suitable values. Students from families with above average income are the most frequent among those expressing mixed values and the least frequent among materialists and post-materialists. It seems as if secure material situation leads to appreciation of some post-materialist values, but not to the disregard of economic aspects. In other words, the rich would prefer to remain rich and enjoy healthy environment and civil liberties.⁶

It is interesting now to examine the relationship between parents' PM index and their family income. The results are displayed in Table 7.

⁶ One wanders how diminishing marginal utility (and the postmaterialist thesis) applies to cases like Bill Gates or George Soros.

Table 7 about here

The relationships are statistically significant (Chi-square=19.04; $df=4$; $p<.001$; Contingency coefficient $C=.27$), and clear enough: the higher family income - the more PM values *parents* express! How this reflects to Inglehart's theory? It is likely that rich parents were themselves children of rich families. In that case, Inglehart's theory is vindicated. The respondents' material well-being in their formative years and their present good condition might equally affect their values. The reason why their children do not particularly support PM values may be that such values crystallize only in mature years. In that case, contemporary students from above economically average families should radically change their values once they secure their material status. So, Inglehart's theory could in principle accommodate these findings with some auxiliary hypotheses.

Since income of parents is a variable so close to what needs to be measured in order to estimate "formative affluence" we devoted more attention to it. Now we present results for some other potential socio-economic predictors of authoritarianism and PM values. Table 8 shows the findings.

Table 8 about here

First, we can observe that this relatively exhaustive list of socio-economic indicators cannot help us in predicting an adolescent's post/materialism. There is only *one* statistically significant, though weak, correlation - with the property index ($r=.11$, $p<.03$), which is fortunately in the expected direction.

On the other side, PM index among *parents* has deeper roots in immediate economic conditions. History of unemployment in the family over past 12 months is negatively related to postmaterialism of parents. Positively correlated with parent's postmaterialism are property index, income, education, and parent's and child's subjective class identification (lower and working class identifiers are more materialist).

While the results for parents provide some support for Inglehart's model (although most of these indicators do not refer directly to economic conditions during parent's formative years), results for the children contradict the Inglehart's theory. The evidence is especially damaging since the employed economic indicators are related to a *child's* experiences during *child's* formative years.

Authoritarianism, on the other hand, especially among parents, is related virtually to all socioeconomic indicators, especially with education and property index, and in the direction PM index should have been: more authoritarian individuals tend to come from economically

disadvantaged families. But, these are rather well confirmed findings concerning authoritarianism (cf., Stone et al., 1993).

Multivariate models

In order to estimate the joint effect of relevant predictor variables on child's postmaterialism and authoritarianism, we entered the entire set of socioeconomic indicators from the Table 8, plus corresponding parental values (PM index or authoritarianism of parents).

About one quarter of variance in children's authoritarianism can be explained by four of the entered variables: parent's authoritarianism (the strongest effect), parents satisfaction with family financial situation, family income, and parents' educational level (second largest effect) (Table 9). Thus, we obtained results rather typical for the research on authoritarianism, except that here family income is *positively* related to authoritarianism.

Table 9 about here

Stepwise regression of *parent's* authoritarianism on socioeconomic indicators revealed an interesting result. Although it was shown above that many of the indicators correlate with parent's authoritarianism, in final instance parent's educational level (combined education of both parents) remains as the only one significant independent predictor of parent's authoritarianism. Moreover, this single variable explains almost one quarter of variance in the dependent variable (adjusted $R^2=.23$, Sig. F $p<.0001$). Education, of course, is negatively related with authoritarianism (beta=-.48, $p<.0001$), and that is rather well documented finding (e.g., Schuman et al., 1992).

With the same set of variables (instead of parent's authoritarianism, parent's PM index was entered), not a single predictor variable exhibited significant effect onto *child's postmaterialism*. The closest was variable *Property* (Beta=.11, $t=1.79$, $p>.07$), but the F-test for the entire equation proved insignificant.

The situation is somewhat better with prediction of *parent's* PM index on the basis of the socioeconomic indicators. Results of stepwise regression are in Table 10.

Table 10 about here

Our predictor variables explain modest five percent of variance in parents' postmaterialism (which is of course more than nothing, as in the case of children). Two variables that contribute to this achievement are parent's subjective class identification and family income. Thus, parents who perceive themselves as belonging to relatively higher social stratum, and who report relatively higher income are inclined toward postmaterialist values. It is interesting that the two variables' contribution is independent. It is not just that relatively better off parents perceive their own class status relatively accurately, but it seems that *subjective* class identification and objective wealth are equally important.⁷

It may be useful to graphically present the results of the performed multivariate analyses in the form of hypothetical causal models. Thus, the initial model, presented in Figure 1, shows the order of variables as they are entered into stepwise regression. Child's values, i.e., PM index or authoritarianism, is variable of primary interest. It is regressed onto the entire set of variables on its right side, i.e., Parent's values and SES indicators. In the second regression, Parent's values are regressed onto SES indicators.

Figure 1 about here

Results for child's authoritarianism are presented in Figure 2. Only four variables display significant independent effect, and explain 24 percent of variance in the criterion variable. The strongest seems to be the influence of direct socialization, or parental modeling, since parent's level of authoritarianism is the most influential variable (beta=.31).

Figure 2 about here

Two of three SES indicators have negative effect on child's authoritarianism (parents' education, and satisfaction with family finances), while income has positive independent effect. Parents authoritarianism is best accounted for only by parents' educational level.

⁷ One possible mechanism underlying the independent role of subjective class identification could be the imitation of perceived traits of upper classes. Namely, if postmaterialist values are associated with wealthier social strata, than those who aspire for such status could adopt such values, independently of their 'material base'.

Figure 3 about here

Figure 3, showing the results for postmaterialist values, is somewhat simpler. Child's PM index is unrelated to any of the explanatory variables, while parent's PM index is modestly related to parent's subjective class and to family income. Thus, some five percent in parents postmaterialist values can be understood in terms of their better material status, but it seems that any of the employed SES indicators can help in explaining postmaterialist values among children.

The previous several tables and figures show that class-identification, education, income and other employed variables hardly explain the value-choice of students. Authoritarianism seems to be much more embedded in the socio-cultural character of the family. This finding is extremely puzzling, since socioeconomic status was in the focus of Inglehart's theoretical construction, but not of Adorno et al.'s. Since we employed variables that seem to be quite appropriate for the task of explaining postmaterialism among adolescents, it seems we can conclude that either Inglehart's theory has some serious weaknesses, and/or the employed PM scale is poor operationalization of postmaterialist value types, and/or Hungarian adolescents are a deviant case (concerning the postmaterialist values).

Postmaterialism, authoritarianism and politics

In political matters, the postmaterialists are mobilized not by elitist, bureaucratic organizations but "cognitively", i.e. they possess the skills needed to manipulate political abstractions, to cope with an extensive political community (e.g., Inglehart, 1977). They are supposed to be politically active but not closely linked to political parties. Hence, we expected weak relationship with party-choice especially because Hungary does not have electorally significant 'new left' parties. We expected stronger relationship with political interest and especially unconventional modes of political participation.

Authoritarians are expected to exhibit rather strong party preferences. Specifically, they should be attracted to right wing parties, as they are in the West (e.g., Altemeyer, 1988), but also to 'reactionary left' parties, i.e., parties requesting the return of the old communist regime.

Political parties

According to our findings, authoritarianism indeed determines vote much better than postmaterialism.⁸ According to the ANOVA results, voters of different Hungarian parties differ in average degree of authoritarianism ($F=6.96$, $df=333/5$, $p<.01$). As predicted, the most authoritarian are

⁸ Party choice is analyzed only at the level of parents.

voters of the Munkaspart (the direct heir of the old Communist party) and FKgP (nationalist right-wing party), while parties of moderate left (MSZP) and liberal orientation (SZDSZ and Fidesz) are low scoring in authoritarianism.

Postmaterialism is rather evenly distributed among supporters of different Hungarian political parties. Although the differences are in the expected direction (e.g., Munkaspart voters are the most materialist, and liberals, i.e., SZDSZ are the most materialist), they are not statistically significant ($F=1.05$, $df=341/5$, $p>.39$). The low relevance of postmaterialism for electoral choices is probably directly linked to ambiguous profile of parties on these issues and the general low relevance of post-materialist issues in the Hungarian political life.

Left-right self-identification

Concerning the left-right self-identification, the only significant linear relationship obtained is between authoritarianism and right-wing leaning on the sample of children (Table 11). In Hungary, however, left-right continuum among adults is in curvilinear relationship with authoritarianism: moderate left-of-the-center self-placements are accompanied by the lowest authoritarianism scores (see Enyedi et al., 1997, Enyedi and Todosijević, 1999b). It seems that younger generations already more resemble their western counterparts, where authoritarianism is commonly associated with the right wing.

Table 11 about here

Electoral participation

The difference between the predictive power of postmaterialism and authoritarianism is smaller in case of participation in elections (Table 11). The analysis of both variables shows that people holding tolerant, idealistic values are over-represented in the electoral arena: both individuals categorized as postmaterialists and as low authoritarians express greater likeliness to vote on elections (correlations are $-.16$ and $.22$ respectively, both $p<.01$).

The results are not surprising concerning authoritarianism, due to its correlation with education (e.g., Schuman et al., 1992), and well documented lower participation in politics of the less educated strata. While low authoritarians perhaps contribute to more tolerant social climate by their relatively greater probability of electoral participation, contribution of postmaterialists seems rather symbolic, primarily because of their minor proportion among population.

Interest in politics

Libertarians and postmaterialists are also more interested in politics (coefficients are .21 and -.23 respectively, both $p < .01$), but this applies only to the parents. Thus, conventional political participation and political interest can be predicted on the basis of both one's PM index and authoritarianism. The relationships are in expected direction: postmaterialists and libertarians are more interested in politics, and more likely to participate in elections.

Unconventional political participation

Postmaterialism's most often discussed dependent variable is participation in non-conventional political activities (e.g., Inglehart, 1984). We have asked the respondent to express their readiness for participating in seven different forms of activities. The factor analysis of these activities yielded two distinct factors in both sub-samples. The first factor was composed of activities like collecting signatures, strike, demonstration, traffic blockade, and was labeled as 'non-violent' factor. The second factor was defined by actions like "break things in order to achieve a goal", painting slogans, and "be violent with others in order to achieve a goal", and was appropriately labeled: the 'violent factor'.

In case of parents, authoritarianism is related to 'violent' unconventional political participation, though rather weakly ($r = .12$, $p < .05$). Thus, in spite of their greater conventionalism, the authoritarians are still somewhat more inclined to find these 'violent' forms of political participation as acceptable. No other coefficient concerning the forms of unconventional participation is significant. This is another field where postmaterialism failed to predict a theoretically relevant dependent variable. However, it has to be mentioned that 'violent' modes of participation were extremely rarely seen as acceptable by our respondents. For example, 97.5% of parents "surely would not" "break things in order to achieve a political goal", while only 10 (ten) respondents chose among the three additional answer options (probably not, maybe would, and surely would). Thus, the restricted range exercised its effect.

Inglehart's predictions about postmaterialism and modes of political participation do not work particularly well with Hungarian adults and especially not with the youth. Authoritarianism theory has not been intended to explain differential support for unconventional political activity, electoral participation or interest in politics. Nevertheless, it is slightly better able to predict these variables.

Conclusion

The obtained results show that most of the major variables like age, parent's attitude, socio-economic status, voting, left-right identification, are more closely tied to authoritarianism, than to postmaterialism. Inglehart's model showed some usefulness virtually only for explaining conventional

political participation and political interest, and even there PM did not outperform our authoritarianism scale. However, if postmaterialism failed to show statistically significant relationships as expected, it should be recognized that those that appeared were generally in the theoretically expected direction.

Two findings are particularly puzzling. One concerns the lack of difference between generations in the level of postmaterialism. It might be the result of two, conflicting factors: of the increased freedom and of the equally increased insecurity. The other concerns the almost total unrelatedness of postmaterialism to indicators of socio-economic status. The puzzle is greater because we were able to include variables that have to be regarded as rather relevant for describing the adolescents' degree of "formative affluence" (especially education and family income).

Two further general outcomes are worth reiterating. First, both authoritarianism and postmaterialism showed poorer performance with adolescents as respondents than with their parents. One reason could be that some of the processes that these scales are supposed to identify do not fully develop and stabilize until the later age. Other, not mutually exclusive possibilities are that the used scales are inappropriate for that age (which seems to be confirmed by the superior performance of the work-values item over the standard PM index), or that adolescents are particularly inclined to give misleading answers to interviewers.

The second general finding is that authoritarianism in many respects behaved as PM index should have behaved. The reason for this is not that the two instruments overlap in their measurement domain, although we believe that the two dimensions ought to be related if properly measured. The applied 4-item postmaterialism index proved to be basically unrelated to anything we tried to examine, even to the theoretically most central variables like socioeconomic status of parents. We suspect that this disappointing findings are primarily due to inappropriate operationalization of the PM values.

To conclude, authoritarianism is much more strongly linked to the social and political reality in Hungary than postmaterialism. Authoritarianism seems to be preferable theoretical construct for understanding of political attitudes and behavior.

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Table 1 Distribution of parents' and children's answers to postmaterialism items

PM item	First choice		Second choice	
	Parents %	Children %	Parents %	Children %
Maintain order	54.4	38.0	24.6	28.2
Greater democracy	20.8	27.0	25.9	22.6
Curb inflation	19.5	24.2	30.7	31.8
Greater freedom of speech	5.3	10.7	18.8	17.4

Table 2 Distribution of value orientations among parents and children

	Parents (%)	Students (%)
Materialist	36.2	31.2
Mixed	56.6	60.1
Postmaterialist	7.1	8.8

Table 3 Differences between parents and children in scores on authoritarianism items

AUT scale items	Mean score*		<i>P</i> value (t-test)
	Parents	Children	
1. Healthy normal and honest people would not think of hurting friend or...	3.43	3.18	.000
2. We should revenge the offenses to our honesty	2.06	2.62	.000
3. The most contemptible are those who do not show respect to their parents...	3.67	3.43	.000
6. There live too many non Hungarians in the country...	2.55	2.74	.010
8. Immoral conditions are due to that parents and teachers forgiving...	1.62	1.48	.020
10. Neighboring countries have territories that should belong to Hungary	2.43	2.86	.000
12. The country needs devoted leaders rather than laws	1.41	1.54	.013
14. Most social problems would be solved by getting rid of immoral...	2.61	2.84	.003
21. It is wrong that Black and White people can marry.	1.92	1.78	.045
23. It is right that Hungary is the home of all nations who live...	3.07	2.55	.000

Note: Results are shown only if the difference is statistically significant.

* Mean score refers to 4-point scale (1 - fully disagree, 4 - fully agree).

Table 4 Joint distribution of Post-materialist index among parents (rows) and students (columns)

Parents \ Students		Materialism	Mixed	Postmaterialism	Total
Materialism	n	53	76	12	141
	%	37.6	53.9	8.5	100.0
Mixed	n	57	135	22	214
	%	26.6	63.1	10.3	100.0
Postmaterialism	n	7	18	0	25
	%	28.0	72.0	0.0	100.0
Total frequency		117	229	34	380

Note: Chi-square=7.87, $p=.096$; Contingency coefficient $C=.14$

Table 5 Correspondence in materialist-postmaterialist work-values between parents and children

Parent's work values*	Child's work values			Parent's wish about child's job**	Child's work values		
	Materialist	Postmat.	Total		Materialist	Postmat.	Total
Materialist	79 49.4%	81 50.6%	160 100.0%	Materialist	99 55.0%	81 45.0%	180 100.0%
Postmat.	45 30.6%	102 69.4%	147 100.0%	Postmat.	52 29.1%	127 70.9%	179 100.0%
Total	124 40.4%	183 59.6%	307 100.0%	Total	151 42.1%	208 57.9%	359 100.0%

* Chi-square=11.202, $p < .001$; Contingency coefficient $C = .188$

** Chi-square=24.800, $p < .001$; Contingency coefficient $C = .284$

Table 6 Relationship between family income and *students'* Post-materialist index *

Family income \ PM index		Materialism	Mixed	Postmaterialism	<i>Total</i>
Below average	Frequency	26	59	10	95
	(%)	27.4	62.1	10.5	100.0
Average	Frequency	71	108	17	196
	(%)	36.2	55.1	8.7	100.0
Above average	Frequency	22	64	8	94
	(%)	23.4	68.1	8.5	100.0
<i>Total frequency</i>		<i>119</i>	<i>231</i>	<i>35</i>	<i>385</i>

* Chi-square=6.06, d.f.=4, $p=.19$; Contingency coefficient $C=.12$

Table 7 Relationship between family income and parents' PM index*

Family income \ PM index		Materialism	Mixed	Postmaterialism	Total
Below average	Frequency	40	54	3	97
	(%)	41.2	55.7	3.1	100.0
Average	Frequency	79	105	10	194
	(%)	40.7	54.1	5.2	100.0
Above average	Frequency	23	60	15	98
	(%)	23.5	61.2	15.3	100.0
<i>Total frequency</i>		142	219	28	385

* Chi-square=19.04, d.f.=4, $p < .001$; Contingency coefficient $C = .27$

Table 8 Correlation between indicators of socio-economic status and authoritarianism and postmaterialism

Variable	AUT Parents	AUT Children	PM Parents	PM Children
Occupational category (1 - upper level executive, 10 - self-employed in agriculture)	.35**	.19**	-.09	-.04
Are you afraid of becoming unemployed? (1 - not at all, 5 - very)	.12*	.13*	-.06	-.01
Was someone from the family unemployed during past 12 months? (0 - no, 1 - yes).	.11*	.17**	-.11*	-.03
Parent's Subjective class identification (1 - lower class, 5 - upper middle class)	-.30**	-.19**	.18**	.06
Children's Subjective class identification (1 - lower class, 5 - upper middle class)	-.22**	-.10*	.10*	.08
Parent's satisfaction with family financial situation (0 - totally dissatisfied, 10 - totally satisfied)	-.25**	-.25**	.07	.04
Child's satisfaction with family financial situation (0 - totally dissatisfied, 10 - totally satisfied)	-.16**	-.11*	.04	.06
Property ^a	-.34**	-.20**	.16**	.11*
Family income	-.15**	.01	.18**	-.05
Education ^b	-.48**	-.38**	.12*	.09

* $p < .05$, ** $p < .01$; two-tailed.

^a Property refers to summarized parent's affirmative answers to eight questions asking whether respondent's family owns: telephone, cellular phone/pager, PC, VCR, radio, CD player, tape recorder, and a car. Higher score (maximum is 8) indicates more property.

^b Education is a composite variable, constructed by adding educational levels of both parents. Each question had 7 categories, from 1 - unfinished primary school, to 7 - university education. The composite variable had minimum of 2 and maximum of 14.

Table 9 Stepwise regression of child's authoritarianism on parent's authoritarianism and socioeconomic variables

Variable	b	Beta	t	<i>p</i>
Parent's Authoritarianism	.31	.31	5.13	.0000
Parent's satisfaction with family financial situation (0 - totally dissatisfied, 10 - totally satisfied)	-.04	-.12	-2.03	.0435
Family income	.03	.14	2.49	.0134
Education of parents	-.10	-.22	-3.49	.0006
Constant	.98		3.77	.0002
Adjusted R ² =.24, F=22.15, <i>p</i> <.0001				

Table 10 Stepwise regression of parent's PM index on socioeconomic variables

Variable	b	Beta	t	p
Parent's Subjective class identification (1 - lower class, 5 - upper middle class)	.09	.15	2.47	.014
Family income	.02	.16	2.62	.009
Constant	1.34		12.08	.000

Adjusted R²=.05, F=7.79, df.=2/266, p<.001

Table 11 Relationships of authoritarianism and postmaterialism with political indicators

Political indicators	Children's PM	Parents' PM	Children's AUT	Parents' AUT
Party preference (parents only)		n.s.		$p < .01$
Left-right self-placement	.02	.10	.18**	.03
Electoral participation ^a (parents only)		-.16**		.21**
Political interest ^b	-.09	-.23**	.07	.21**
Non-violent unconventional political participation ^c	.05	.09	-.10	.05
Violent unconventional political participation ^c	.01	.06	.08	.12*

* $p < .05$, ** $p < .01$.

^a The question was: "Would you go to cast vote if elections were next Sunday?" Higher value=less likely to vote.

^b Five-point variable, higher score - less interest.

^c Factor score; see the text.