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Modelling Childhood Antecedents
of Political Cynicism Using
Structural Equation Modelling

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August 1996

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Findings based on this research were initially presented to the British Psychological Society Conference in 1994 and subsequently illustrated in the ESRC LAMDA Seminar series to demonstrate the use of LISREL to model temporally ordered data. Ukoumunne expanded the analyses in his MSc dissertation for which he was awarded the 1995 Cathie Marsh prize for the best project submitted during that year. The work is based entirely on the 1958 National Child Development Study. Thanks for help on this project are due to Kevin Dodwell, Elsa Ferri and Peter Shepherd at the Social Statistics Research Unit.

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1.0 BACKGROUND

Alienation from the political system poses challenges to the principle of democratic participation and consequently to the idea of democracy itself. Yet in surveys of population in Western countries, consistently high levels of political cynicism have been demonstrated (Barnes et al. 1979; Heath and Topf, 1987). In the 1987 British Social Attitudes Survey, for example, Heath and Topf (1987) reported that up to two-thirds of British adults endorse such opinions as, "Generally speaking, those we elect as MP's lose touch with people pretty quickly" and "Political parties are only interested in people's votes, not their opinions"; a proportion which has not changed much since the Second World War. Among young people below voting age, cynical opinions about politics and politicians are also widespread. In research conducted under the ESRC 16-19 Initiative, the majority of respondents expressed mistrust in politicians (Banks, et al, 1991) and almost two-fifths of people in the 16 to 19 age group said that they had no interest in politics. Although interest in politics rose with age, as did the intention to vote, there was no accompanying fall in cynicism. This suggests that the foundations of cynicism may well be laid down in an earlier period of life and that the cynical view of politics is relatively unaffected by what happens in the teens.

The dominant theorising about the origins of political alienation tends to locate political cynicism among those people who see themselves as gaining least from the political system, notably those whose education is poor, and whose position in the labour market is similarly weak. The *resource model* of political action, for example (Verba and Nie, 1972; Dalton, 1988; Marsh, 1990), postulates that achievement in education improves the sense of self-efficacy. When applied to politics, this sense of self-efficacy is manifested in the belief that political change can be achieved and that the individual has the resources to cause change. The sense of powerlessness and fatalism, typically associated with disadvantaged family background and subsequently poor progress at school and beyond, leads to a rejection of politics, as it is seen as being of little relevance. On the other hand, this does not necessarily extend to an intention not to vote. Heath and Topf (1987) point out that across all education levels and across all social groups, the civic responsibility of voting is by and large accepted, and most people, even with a complete lack of interest in politics will, when it comes to a general election, exercise their right to vote. A small proportion, however, do reject even this degree of involvement with the political system.

In earlier research using 16 to 19 Initiative Data (Bynner and Ashford, 1994), multiple regression was used to model the relationships of interest in politics, intention to vote and political activism to earlier experiences, attitudes and family background. It was found that one of the main predictors of the intention **not** to vote was political cynicism. Other analyses of the same data linked a range of hostile attitudes to institutions of adult authority with early participation in the activities associated with 'youth culture' (or *teenage culture*) such as going to parties, pubs and discos (Bynner and Ashford, 1992). This raised the possibility that lifestyle and attitudes adopted during the teens, might be influential on levels of political cynicism. What have been described as "teen centric attitudes" (Meeus, 1989) represent teenagers rejection of and cynicism towards adult institutions and activities, which we might expect to include politics and voting.

The ESRC 16 to 19 Initiative data set was limited to three surveys at annual intervals, of the same groups of individuals over the period age 16 to 19. What remains unclear is how much social circumstances and accumulated experience before this age period contributes to the foundations of political cynicism. It raises the question of the extent to which adult political cynicism can be predicted, if at all, from the circumstances in which individuals are born and how subsequent experience, in the education system and in social life outside, shape this orientation towards politics.

This study is concerned with finding out:

- * Whether the origins of political cynicism in adulthood can be detected in family background at birth.
- * The extent to which early academic performance adds to family background to reinforce or curtail the growth of politically cynical attitudes.
- * The extent to which academic failure during the teens adds to earlier academic failure to encourage political cynicism.
- * Whether, and if so the extent to which, hostile attitudes to education and early participation in teenage social life (teenage culture) add to educational failure in encouraging political cynicism even further?
- * The extent to which there are gender differences in the formation of politically cynical attitudes.

In summary can we identify the origins of political cynicism in early childhood, or are its foundations more closely linked to subsequent experiences in adolescence and the transition to adulthood in the middle to late teens?

To answer such questions, we need longitudinal data of a kind that covers life events from birth to adulthood. The National Child Development Study has exactly these features and was ideal for use in this study.

The National Child Development Study comprises follow-up from birth to age 33 of a complete cohort of individuals born between the dates of March 3rd and March 9th, 1958. The sample was originally drawn at birth for the 1958 British Perinatal Mortality Survey (NCDS0). Surveys of the cohort have since been conducted at ages 7 (NCDS1), 11 (NCDS2), 16 (NCDS3), 23 (NCDS4) and most recently at age 33 (NCDS5). In each survey, information was collected from a variety of sources (mainly cohort members and their parents) on current status including health, behaviour and aptitude, together with the respective history between surveys of education, employment, housing and family formation.

A self-completion questionnaire administered during NCDS5, titled '*What Do You*

'Think?' contained a large number of attitude scale items in 'Likert' format. Wiggins and Bynner (1993) used factor analysis to separate the attitude items into meaningful groups. One such group of three items was labelled 'political cynicism' because they were believed, following Marsh (1977) to be measuring that attitude. Subsequently, an average based on the summated score for the three items was produced for each respondent. In this study we seek to explain the variation in the political cynicism scores by regressing them on variables or antecedents that are temporally prior to them. The method employed to do this is structural equation modelling using the LISREL (Joreskog and Sorbom, 1989) procedure. This method also allows us to measure political cynicism more precisely, than a simple aggregation. For the purposes of this analysis, the variables used, comprised family background at birth and early childhood assessed through parents education and social class (NCDS0), children's educational performance at age 11 (NCDS2) and 16 (NCDS3), age of intention to leave school, and participation in teenage social life as represented by frequency of attendance at parties and discos (NCDS3), the political cynicism score and the scores on the three individual political cynicism items.

2.0 ANALYTIC METHODS

2.1 Structural equation modelling

Structural equation modelling (SEM) is a statistical technique that is used to describe and assess the nature of the relationships between concepts and their indicators. Concepts are theoretical variables or *latent* variables which cannot be directly observed or measured. Indicators are measured or recorded variables which are *manifest* in the data. SEM combines the basic features of both regression analysis and factor analysis in a single framework. The relationships between a latent variable and their indicators are expressed by means of a *measurement model*. For example a measurement model for political cynicism can be represented diagrammatically in Figure 1. Various conventions follow; the lines or connections between variables are described as *paths*. An arrow leads a path from its independent source to its dependent outcome. Thus, for the three indicator items or manifest variables describing political cynicism any observed association between them is assumed to be due to their common dependence on the common underlying latent variable- in this case political cynicism. Manifest variables are illustrated by rectangles and latent variables by circles. Path diagrams will also include connections (with arrows, labelled as e's)) which remind the reader that manifest variables are measured with error and that errors themselves may be correlated. Similarly, z's indicate the amount of unexplained variation in the latent variable. Associated with each path is a coefficient, defined below, which describes the strength of any relationship.

There may be more than one latent variable in an analysis each of which has its own measurement model. The relations that any set of latent variables have between each other define the underlying structure. The inclusion of measurement models provides an important improvement in the measurement of the structural parameters in the model. A latent variable can be both dependent and independent. Thus, for the analysis that follows we have measurement models defined at different time points, eg educational attainment at age 11 and age 16. The latent variable attainment at age 16 is modelled as dependent on the latent variable attainment at age 11. Likewise a latent variable used to measure political cynicism at age 33 can be modelled as directly dependent on the value

of the underlying score for educational attainment at age 16. Thus, the latent variable, attainment at age 16, is both independent and dependent. Figure 2 includes these relations as well as paths between attainment at age 11 with anti-school attitudes at 16 and involvement in teenage culture at 16. Implying that poor attainment leads to subsequent rejection of school values and involvement in parties and discos. These values at age 16 are modelled to have direct paths to political cynicism at age 33. *Note*, not all possible paths are included in the diagram. Generally, the inclusion of any path must be supported by the substantive theory. SEM is ideally suited to the analysis of longitudinal study like the NCDS which provides temporal data, which measure the same or different concepts over time, and thereby provide a natural causal structure with clear antecedents of political cynicism.

Testing and assessing theoretical path models consists of four main steps:

- * Estimating the path coefficients of the model¹.
- * Assessing the model for goodness of fit to the data.
- * Assessing the model for interpretability. Does the model support our substantive theory and if not is it *plausible*?
- * Making changes to the tested path model which will hopefully improve both its goodness of fit and meaning.

These four steps form an iterative process that is continued until a 'best model' is found.

In this study the LISREL procedure available via SPSS for Windows, is used to test the path models. Correlation matrices of the explanatory variables in the path model are entered into the LISREL procedure as data. LISREL uses an iterative process (Maximum Likelihood) to derive the path coefficients for the model and then, subsequently, produces a new matrix of *fitted* correlations of the explanatory variables which are implied by the path coefficient values. The path coefficients are derived in such a manner that the differences between the observed and fitted correlations are minimised.

The likelihood of the magnitude of the difference having arisen by chance is assessed by a 'likelihood ratio' test which computes a chi-square statistic. The larger, or more significant, the chi-square statistic is the greater the difference between the observed and fitted correlation matrices. Hence, a small, insignificant, chi-square value theoretically indicates that the model is a good fit to the data.

¹ A path coefficient is a partial regression coefficient between a dependent variable and an independent variable that is postulated to cause it. In layman's terms the path coefficients indicate the strength and polarity of the relationships between the variables. Standardised path coefficients enable the analyst to assess the relative importance of relationships in the model.

There are problems, however, with using the significance level of the chi-square statistic to assess fit, not least because it can be statistically significant even for models that are not bad at all. Further, the size of the chi-square statistic is sample dependent. Thus for two samples, one large and one small, where a theoretical model is equally appropriate for both, the chi-square statistic will be lower for the smaller sample and indicate that the model is better suited to it than to the larger one. Because of these problems with the chi-square statistic the ratio of chi-square to its degrees of freedom is often used as a measure of fit (Wheaton et al, 1977; Joreskog, 1993)². This is the main measure that is used in this study although LISREL does produce other goodness of fit measures.

The main ones referred to are the goodness of fit index adjusted for degrees of freedom (AGFI), with a scale of 0 to 1, and the root mean square residual correlation (RMS), i.e. the difference between the observed correlations and those predicted by the model. At each stage the program estimates the model's parameters, including path coefficients and the proportion of variance in political cynicism explained. In addition, the program produces diagnostics, such as the 'modification indices', indicating how the fit of the model can be best improved by allowing more paths to be estimated.

The other important facility of LISREL, which we use here, is to replace the single variables, as used in the initial analyses, by latent variables manifested through measured indicators of educational attainment, involvement in teenage culture, political cynicism and so on. The advantage of including latent variables is that they reflect more precisely the theory under test, and secondly that the modelling of the measurement errors they contain corrects the regression or path coefficients for attenuation. For a fuller treatment of the 'state of the art' in modelling strategies and goodness of fit indices for structural equation models the interested reader is referred to a collection of papers edited by Bollen and Long, 1993.

Whilst it is a goal to explain as much variation as possible in key latent variables, it is worth remembering that a model which explains a lot of variation may still not be appropriate to the data especially if the path coefficients fail to support established theory. In assessing path models for performance, therefore, one needs to look at three aspects of the solution:

² In this study we *aim* to produce models for which the ratio of Chi-square to its degrees of freedom lie between 5 and 6. This range of values is preferable to zero because extremely low Chi-square ratios are generally capitalising on chance. If too many paths are added to a model they tend to improve the fit and, thus, reduce the Chi-square ratio whether they are theoretically correct or not; this is something that needs to be avoided. Thus, the desired limits for the Chi-square ratio of 5 and 6 are to find parsimonious models that also fit the data well.

- * The goodness of fit of the model to the observed correlations
- * The interpretability of the path coefficient estimates³
- * The amount of variation explained by the model.

2.2 Modelling Strategy

To investigate the development of political cynicism in the NCDS cohort from childhood through to age 33, we model by path analysis (multiple regression methods and SEM) the relationship of the political cynicism variable measured at age 33 to variables measured at earlier stages in the cohort member's life. The strategy used is to start by regressing the average score for political cynicism obtained by aggregating the scores on the political cynicism items on family background characteristics at birth and then, in subsequent models, to build in later experiences and gauge the extent to which explanation of variance in the political cynicism variable is improved. We also assess the effect that variables added later have on the size of regression coefficients associated with variables that are already in the model. For example are they reduced in size by the addition of the later variables?

SEM implemented via the LISREL program enables linear (regression) models expressing the relationships among observed variables to be fitted to the observed correlations. In undertaking this model testing and reformulation, we seek the most parsimonious set of regressions, from which the original correlations can be constructed, while maintaining goodness of fit. In other words by constraining certain paths in the model to be non-existent (i.e. with zero path coefficients), we try to *explain* political cynicism in terms of the minimum number of influences represented by paths coming from prior variables.

In what follows, we test a series of models, starting first with a simple multiple regression of political cynicism on family background characteristics at birth. We then build up the models using variables measured at subsequent stages. Finally, we replace these variables by latent variables with multiple indicators. Three sets of data are used in the analyses: the total data comprising product moment correlations between all the variables of interest for the entire sample and correlation matrices for men and women separately. Altogether 4,226 cohort members are used in this analysis; 1,987 men and 2,239 women. These samples contained complete records for all variables selected for analysis. Almost two thirds of the original sample for NCDS5 had at least one item missing. Full details of the variables employed in this study are given in Table 1.

2.3 Specification of LISREL models

Eight structural equation models are tested in this study and illustrated in Figures 3 to 10

³ In this project we report only standardised path coefficient values rather than actual fitted ones. This is because standardised coefficients give a more accurate representation of the relative strengths of each of the path links. Hence, the most important antecedents of the dependent variables in each model can be identified.

as path diagrams. The first four models introduce childhood antecedents sequentially over NCDS wave 2 (age 11), 3 (age 16) to predict political cynicism as measured directly by summated score based on the three opinion statements described in table 1. All of the subsequent models include measurement models to reflect underlying latent variables described by our theory, namely educational attainment at age 11 and 16, teenage culture and political cynicism itself. The models were constructed as follows:-

Model 0- the multiple regression model of political cynicism on birth antecedents (Figure 3)

Dependent variable - Political Cynicism (CYNIC5)

Independent variables - Sex, social class of father, father's age of leaving school, mother's age of leaving school.

Model 1- path model for political cynicism with reading comprehension as an intervening variable at age 11 (Figure 4)

Model 0 with reading test score at age 11 (to represent educational attainment) introduced as an intervening variable between the social background variables and political cynicism. Only the direct path in Model 0 between social class and political cynicism is retained.

Model 2 -path model for political cynicism with reading comprehension as intervening variables at age 11 and at age 16 (Figure 5)

As for model 1 with reading test score at age 16 (to represent educational attainment) introduced as a second intervening variable between reading test score at age 11 and political cynicism. The direct path between social class and political cynicism, used in Models 0 & 1, is now dropped.

Model 3- -path model for political cynicism with reading comprehension as intervening variables at age 11 and at age 16 together with variables to represent participation in teenage culture and attitude towards school (Figure 6)

Model 2 with two additional intervening variables introduced at age 16 - 'dislikes school' (to represent attitude towards school) and 'frequency of going to discos' (to represent level of participation in teenage culture activities).

Model 4 Path model with latent variables at age 11 and 16 to represent educational attainment, pro-school attachment and engagement in teenage culture for political cynicism as a dependent latent variable (Figure 7)

Structurally similar to model 3 with latent variables replacing the single indicator variables. "Educational attainment" at ages 11 and 16 measured by the reading test scores and mathematics test scores; "pro-school" attitudes measured by the 'dislikes school', 'thinks school is a waste of time' and 'age wants to leave education' variables; participation in "teenage culture" measured by the 'frequency of going to discos' and 'frequency of going to parties' variables; "political cynicism" measured by the three NCDS5 attitude scale items (PC1, PC2 & PC3) instead of using the summated scale score itself.

Model 5 Path model as for model 4 without the manifest variable 'age wants to leave school' as an indicator of pro-school attachment (Figure 8)

Model 4, with 'age wants to leave education' removed, leaving the "pro-school" attitudes factor measured by only two indicators: 'dislikes school' and 'thinks school is a waste of time'.

Model 5-men: Path model for model 5 for men alone (Figure 9)

Model 5-women: Path model for model 5 for women alone (Figure 10)

3.0 FINDINGS

3.1 Results for models 0 through 5

The results of the analysis are summarised in Table 2 which shows the various goodness of fit indices for the different models and the proportions of variance explained. All of the models are illustrated in figures 3 to 10 with corresponding path coefficients and error variance. Model 0 (figure 3) which is a simple multiple regression, is fully saturated, i.e.. there are no constraints on the parameter estimates. It is notable that the independent variables at birth explain only 4% of the variance in political cynicism at age 33. The fitted equation is:

$$\text{CYNIC5} = -0.05 * \text{SEX0} + 0.12 * \text{SOCLAS1} - 0.05 * \text{PALEAVE} - 0.07 * \text{MALEAVE}$$

From table 1 the averaging of political cynicism items indicate that low scores correspond to *low* levels of political cynicism. Thus, referring to the coding details in

table 1, we can see that *for all other categories defined by the independent variables being held constant*, males rather than females, people from lower social class backgrounds compared to those in more privileged social groups and those whose for whom either parent left school early rather than staying on are more likely to be political cynical by the time they reach 33. As the path coefficients are standardised it would appear that social class characteristics at birth are relatively most influential. The fit, however is poor.

The first of the path models, model 1 (figure 4), which includes a wave 2 measure of educational attainment as an intervening variable between birth and 33 raises the variance explained to 5%. The path between attainment and political cynicism suggests that poor attainment at age 11 is associated with higher levels of expressed cynicism, supporting the hypothesis that failure in the educational system is related to mistrust of political processes. Interestingly, birth characteristics are largely mediated via attainment, with children from lower social classes doing less well and those with parents who stayed on longer at school doing better. An alternative version of this model which retains a direct path from social class to political cynicism also suggest that the social class connection is not weakened by the inclusion of an intervening variable for attainment (path coefficient -0.11, proportion of variance explained 7%). The next model, model 2 (figure 5), brings in a wave 3 measure of educational attainment so that the joint influence of educational attainment operates through wave 2 and 3 achievement variables. There is a striking relationship between achievement at age 11 and that at age 16. Thus poor attainment at age 11 is compounded by poor attainment at age 16. This reinforcement of experience in the educational system is illustrated by the path coefficient linking attainment at age 16 and political cynicism. Nevertheless, the overall predictive power of the model remains fairly weak. The goodness of fit and the percentage of variance explained rises to 7%. Model 3 (figure 6) extends model 2 by including additional variables associated with adolescence 'dislike of school' and 'frequency of going to discos', but does not increase the variance explained and the fit remains unimpressive at 8%. The relationship between birth characteristics and attainment at age 11 remains almost unaltered, as does the direct relationship between attainment at age 16 and political cynicism. Path coefficients for dislike of school suggest a positive relationship between not liking school and high cynicism. Going to discos appears to mollify political cynicism. Both going to discos and not liking school tend to be associated with poorer attainment at age 11. Model 4 (figure 7), which is the first to include latent variables, has a relatively poor fit. Whilst the proportion of variance rises to 16% the model remains anomalous, as is shown by the diagnostics for LISREL in table 2 (full details in Ukoumunne, 1994). In particular, some residual correlations and modification indices are large. Subsequent empirical investigation suggests that the problem appeared to reside in the inclusion of age of wanting to leave school, which appears to relate to a number of other variables in the model rather than just to those expressing hostility to school, as was originally assumed. The illustration of the path model in figure 7 omits estimated path coefficients as it is best regarded as an intermediate step towards our final model.

3.2 Further LISREL modelling

Models have been gradually developed to bear a close adherence to our original social theory. However this stage of the analysis still left certain anomalies in the model fitting and testing process to resolve. Firstly, to obtain a good fitting model it proved essential to introduce a path from the gender variable to the teenage culture variable at age 16. There was no obvious substantive expectation for this finding. It suggests an interaction between gender and other variables in the model. Secondly, model fit was greatly improved by allowing the errors in the indicators of educational attainment to correlate across time. Once, in place this seemed both plausible and appropriate. Finally, there remained a degree of ambiguity about the potential role for the variable 'age wanting to leave school'. Exploratory analysis (Ukoununne, 1994) which allowed this variable to be associated with all latent variables at age 16 suggests that there is an empirical case for the latent variable to relate to two indicators, one concerned with attainment and the other with hostility to school. Rather than pursue this idea we decided to simply drop 'age wanting to leave school' from the analysis at this juncture. More will be said about the role of 'age wanting to leave education' in the concluding paragraph to the section.

To conclude our analysis, model 5 (figure 8) then, summarises a 'best model' for the sample as a whole. It takes explicit account of correlated errors in educational attainment across time as well as modelling an effect for gender. Additional paths from gender to each of the latent variables are shown in a supplement to the figure 8. Figures 9 and 10 illustrate the results of fitting this model separately for each gender.

Results for the sample as a whole (figure 8) demonstrate a great improvement in the fit where the proportion of variance explained rises to 23%. Full measurement models for attainment, hostility to school and teenage culture involvement greatly enhance the overall fit. Poor attainers at age 16 are most likely to be cynical at age 33. The relationship between involvement in teenage culture and political cynicism holds more strongly than in the model 3 where we only included a single indicator for this factor. Notably, the relationship between hostility to school and cynicism is weak.

Separate analyses for men and women provide an interesting contrast. The models provide a better fit for women compared to men (28% cp 18% in the proportion of variance explained). There appear to be stronger grounds to believe that poor attainment at age 11 and 16 for girls carries over to affect adult political cynicism than is the case for boys. The magnitude of the estimated coefficients and correlations amongst error terms shown in figures 9 and 10 are fairly similar and so the broad interpretation of our model for the sample as a whole remains for both sexes.

However, a methodological concern remains for these models. Path coefficients associated with educational attainment are typically greater than unity⁴. Ironically,

⁴In theory all standardised path coefficients should be no greater than unity. Whenever they are it is either because some aspect of the model is poorly specified or that the relationship between two variables is so close that the model is over-determined.

perhaps a satisfactory resolution to this problem lies in the role of the variable 'age wanting to leave school'. A substantive rationale linking this variable to both hostility to school and educational attainment was not formulated. However, it could be quite plausible that the age someone says they want to leave school when they are aged 16 is closely linked to how they view the point of staying on in terms of academic achievement and how they actually feel about school itself. This reasoning influenced Ukoumunne's reconceptualisation of the modelling. By so doing he arrived at separate models for men and women but, with slightly less convincing goodness of fit (14% for men and 23% for women). These models also exclude a direct path from attainment at age 11 to political cynicism. Unlike the original modelling these models have the merit of producing path coefficients which are all less or very close to unity (Ukoumunne, 1994).

4.0 DISCUSSION

The results of this analysis support the initial propositions of the study, namely that the main influences on political cynicism come from performance in the educational system, originating early in life and merely reinforced by subsequent achievements up to age 16. The only other variable to introduce an additional effect on cynicism in the teens, is participation in youth culture. Small but consistently significant effects are revealed between this variable and cynicism, suggesting that those young people in their teens who are performing badly at school and rejecting the world of adult institutions will tend to develop political cynicism more strongly than others. The notable result here, is that these effects are shown right up to the age of 33. Using structural equation modelling (SEM) the best model of adult political cynicism for the entire sample explains almost a quarter of the variation in the political cynicism scores. Given that antecedents were restricted to childhood variables only, this is encouraging. Clearly, those experiences in the teens and the attitudes developed then, do have a 'major-minor' carry over effect into orientation towards the political system.

The models fitted in this study suggest that the roots of politically cynical beliefs lie in coming from a poor social class background and lack of educational qualification. It supports the resource model of political activism- namely that the least successful educationally will be most politically cynical and consequently the least politically active. a model of political disaffection. The finding is stronger for women than men. Until such analyses are extended to examine the extent to which those who are politically cynical in adulthood are likely to give vent to their feelings by rejecting conventional means of political expression this conclusion must be treated as provisional.

Moreover we must accept the possibility that having a strong interest in politics may not rule out being cynical about the political system. Thus high educational achievement at 16 and subsequent political cynicism could be argued to be consistent with this model. Particularly, if high achievement at 16 is associated with take up of higher education (providing credence to the view that instrumental protest over the environment etc.

prevail amongst the highly educated, students and ex-students alike). In this sense poor educational achievers may be cynical but, apathetic, whereas high achievers may be cynical but, actively involved in protest action. This suggests that the least politically cynical might well be those who do well at school but enter the labour market at 18 rather than continue with higher education.

In weighing these findings and speculations, we need to take account of deficiencies in the data set and the models used. To turn attention next to other variables from the fourth and fifth sweeps about labour market performance, participation in higher education and subsequent voting behaviour would indeed begin to throw further light on how political attitudes are shaped. It is clearly the subject of another analysis. It is also the case that the large data loss for attrition and incompleteness in the study, could produce distortions in the results. The main reason for it is the fact that in the early stages of NCDS, social class of family was not measured consistently, but related simply to father's occupation when there was a father in the household. If there was any tendency for children without a father present to perform more badly at school than others then it would be likely that the percentage of variance explained in political cynicism would increase. We may similarly hope to correct this in part, in later analysis. In the meantime, the parameter estimates here may be considered to fall on the conservative side, as does the proportion of variance explained.

5.0 REFERENCES

Banks, M., Bates, I., Breakwell, G., Bynner, J., Elmer, N., Jamieson, L. and Roberts, K. (1991) Careers and Identities, Open University Press, Milton Keynes.

Barnes, S.H. and Kaase, M. (1979) Political Action, Sage, London.

Bollen, K.A. & Long, J.S. (1993), Testing structural equation models, Sage Focus Edition.

Bynner, J. & Ashford, S. (1992), 'Teenage Careers and Leisure Lives: An analysis of lifestyles', Society and Leisure Vol 15 (2): 499-520

Bynner, J. & Ashford, S. (1994), 'Politics and Participation: Some Antecedents of Young People's attitudes to the Political System and Political Activity', European Journal of Psychology Vol 24: 223-236

Dalton, R.J. (1988) Citizen Politics in Western Democracies, Chatham House, New Jersey.

Heath, A. & Topf, R. (1987), 'Political Culture', in British Social Attitudes - the 1987 report, edited by R. Jowell, S. Witherspoon & L. Brook (Gower Publishing Company Ltd)

Joreskog, K. (1993), 'Testing structural equation models', in Testing Structural Equation Models, edited by K. Bollen and J. Scott Long (Sage Publications Ltd)

Joreskog, K.G. and Sorbom, D. (1989) LISREL 7: a guide to the program and applications (2nd. edition) Chicago:SPSS.

Marsh, A. (1977), 'Protest and Political Consciousness', London: Sage Publications, Inc.

Marsh, A. (1990), 'Political Action in Europe and the USA', London: McMillan

Meeus, V. (1989) 'Parental and Peer support in Adolescence', in The Social World of Adolescents, edited by K. Hurrelmann and U. Engel. Walter de Gruyter.

Ukoumunne, O.C. (1994) MSc Social Research Methods and Statistics Dissertion

Verba, S and Nie, N. (1972) Participation in America, Harper and Row, New York.

Wheaton, B., Muthen, B., Alwin, D. & Summers, G. (1977), 'Assessing reliability and stability in panal models', in Sociological Methodology 1977, edited by D.R. Heise (Jossey-Bass)

Wiggins, R.D. & Bynner, J. (1993), 'Social attitudes', in Life at 33 - The fifth Follow-up of the National Child Development Study, edited by E. Ferri (National Children's Bureau)

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6.0 TABLES

Table 1 Variables used in the analysis (acronyms followed by full description)

Background At birth (NCDS0)

SEX0 - Gender
(1 = male; 2 = female)

SOCLAS1- Social Class
(1 = professional,.....,7 = unskilled)

PALEAVE3- Father's age of leaving school
(1 = below 13 years,....., 10 = above 23 years)

MALEAVE3 -Mother's age of leaving school
(1 = below 13 years,....., 10 = above 23 years)

At age 11- NCDS Sweep Two (NCDS2)

READCMP2 - Reading comprehension test score at age 11
(low - high as 0 - 35)

MATHST2 - Mathematics test score at age 11
(low - high as 0 - 40)

At age 16 - NCDS Sweep Three (NCDS3)

READCMP3 - Reading comprehension test score at age 16
(low - high as 0 - 35)

MATHCMP3 - Mathematics test score at age 16
(low - high as 0 - 31)

AGELEVE3 Age wants to leave education
As replied in years.

SCLWAST3 Thinks school is a waste of time
(1 = true,....., 5 = not true)

SCLSDLK3 Dislikes school
(1 = true,....., 5 = not true)

PARTIES3 Frequency of going to parties
(1 = often,....., 4 = no chance)

DISCOS3 Frequency of going to discos
(1 = often,....., 4 = no chance)

At age 33- NCDS Sweep Five (NCDS5)

CYNPOL5 (PC1) Politicians are mainly in politics for their own benefit
(5 = strongly agree,....., 1 = strongly disagree)

NOPOLP5 (PC2) None of the political parties would do anything to benefit me
(5 = strongly agree,....., 1 = strongly disagree)

NODIFP5 (PC3) It does not really make much difference which political party is in power in Britain
(5 = strongly agree,....., 1 = strongly disagree)

CYNIC5 Political cynicism: summative scale score based on average of the responses to the above three attitude items.

High scores indicate high levels of cynicism

Table 2 - Results for the LISREL modelling of political cynicism

	χ^2	<i>df</i>	χ^2/df	<i>AGFI</i>	<i>RMR</i>	<i>MFR</i>	<i>MSR</i>	<i>PC</i>	R^2
<i>Model0</i>	0.00	0	-	1.00	0.00	0.00	0.00	0.04	0.04
<i>Model1</i>	26.07	3	8.69	0.99	0.02	0.05	3.47	0.07	0.15
<i>Model2</i>	151.8	9	16.87	0.97	0.04	0.10	7.44	0.07	0.14
<i>Model3</i>	643.5	20	32.18	0.93	0.06	0.25	16.08	0.08	0.14
<i>Model4</i>	556.6	77	7.23	0.97	*	*	*	*	*
<i>Model5</i>	409.6	65	6.30	0.98	0.02	0.15	10.81	0.23	0.42
<i>Model 5-men</i>	147.49	59	2.50	0.982	0.023	0.080	4.145	0.180	0.237
<i>Model 5-women</i>	147.04	59	2.49	0.983	0.019	0.054	3.835	0.280	0.306

χ^2 Chi-Square statistic

df Degrees of freedom associated with the chi-square statistic

χ^2/df Ratio of chi-square statistic to its degrees of freedom

AGFI Adjusted Goodness of Fit Index

RMR Root Means square Residual

MFR Maximum absolute Fitted Residual

MSR Maximum absolute Standardised Residual

PC Percentage of variation in Political Cynicism that is explained

R^2 Coefficient of determination for the structural equations

*

Inadmissible model diagnostics

For further details see Ukoumunne, 1994.

7.0 FIGURES

**Measurement model for political cynicism:
Wave 5 - age 33 years**

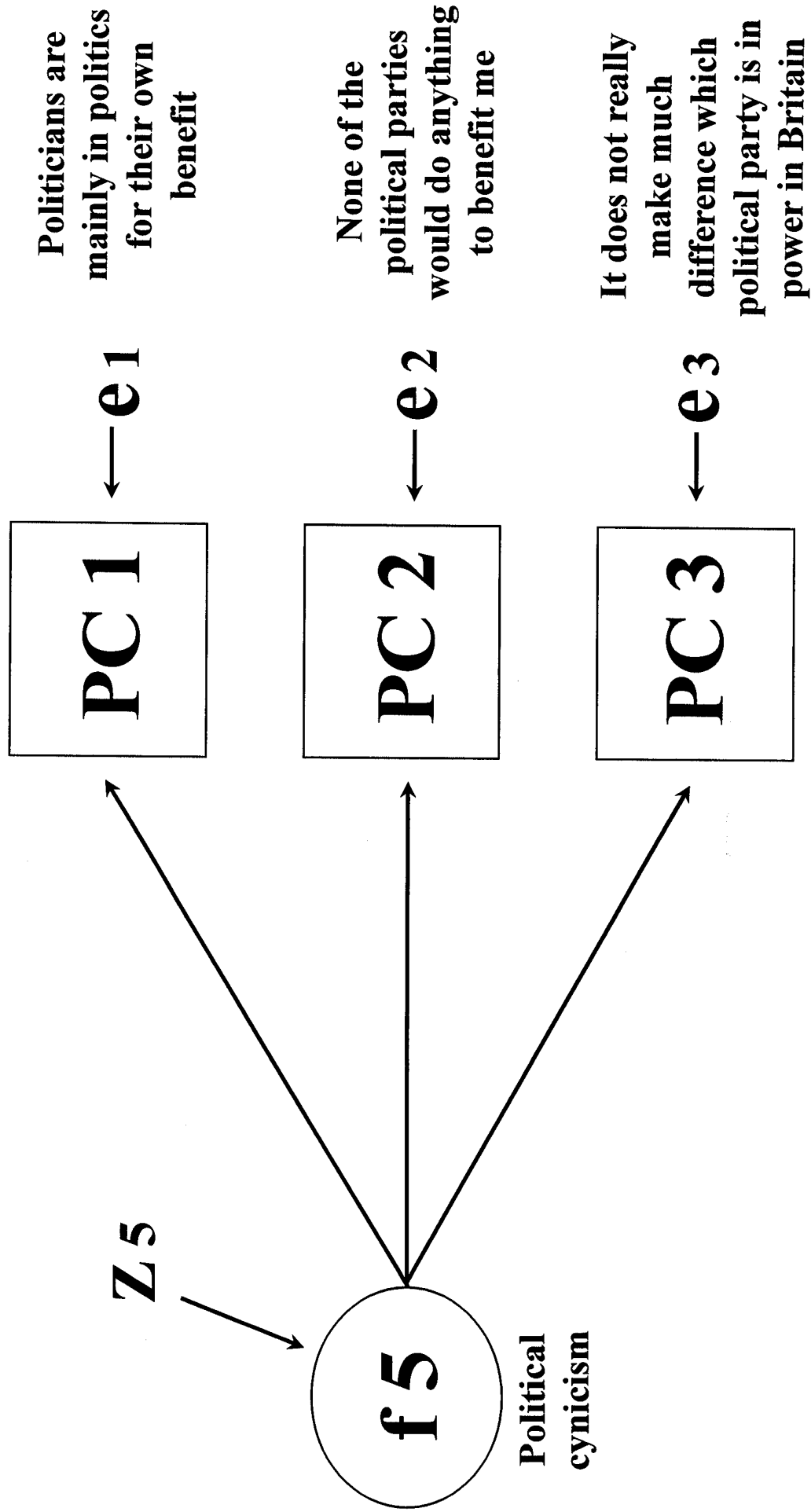


Figure 1

Modelling the 'unobservable'

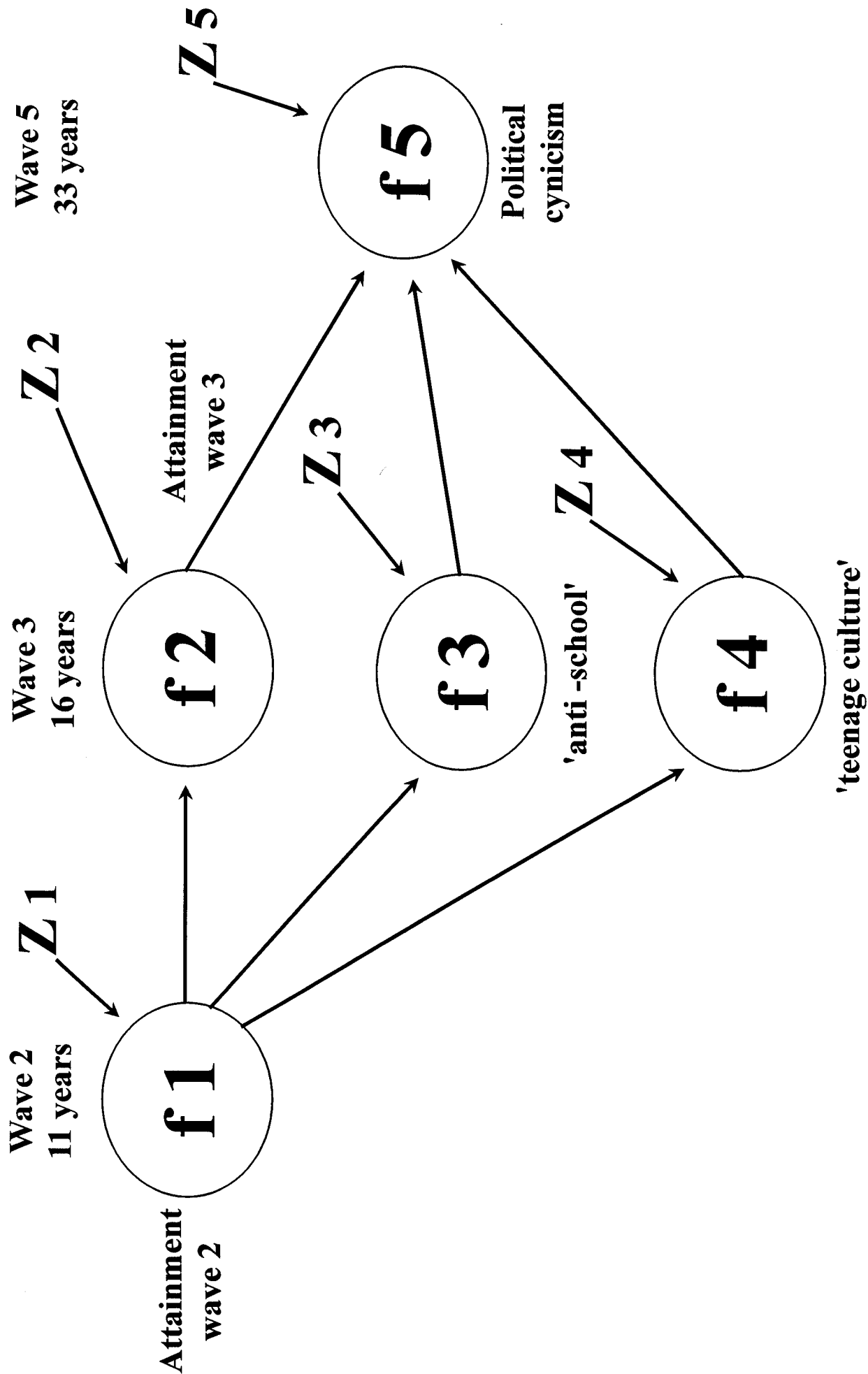


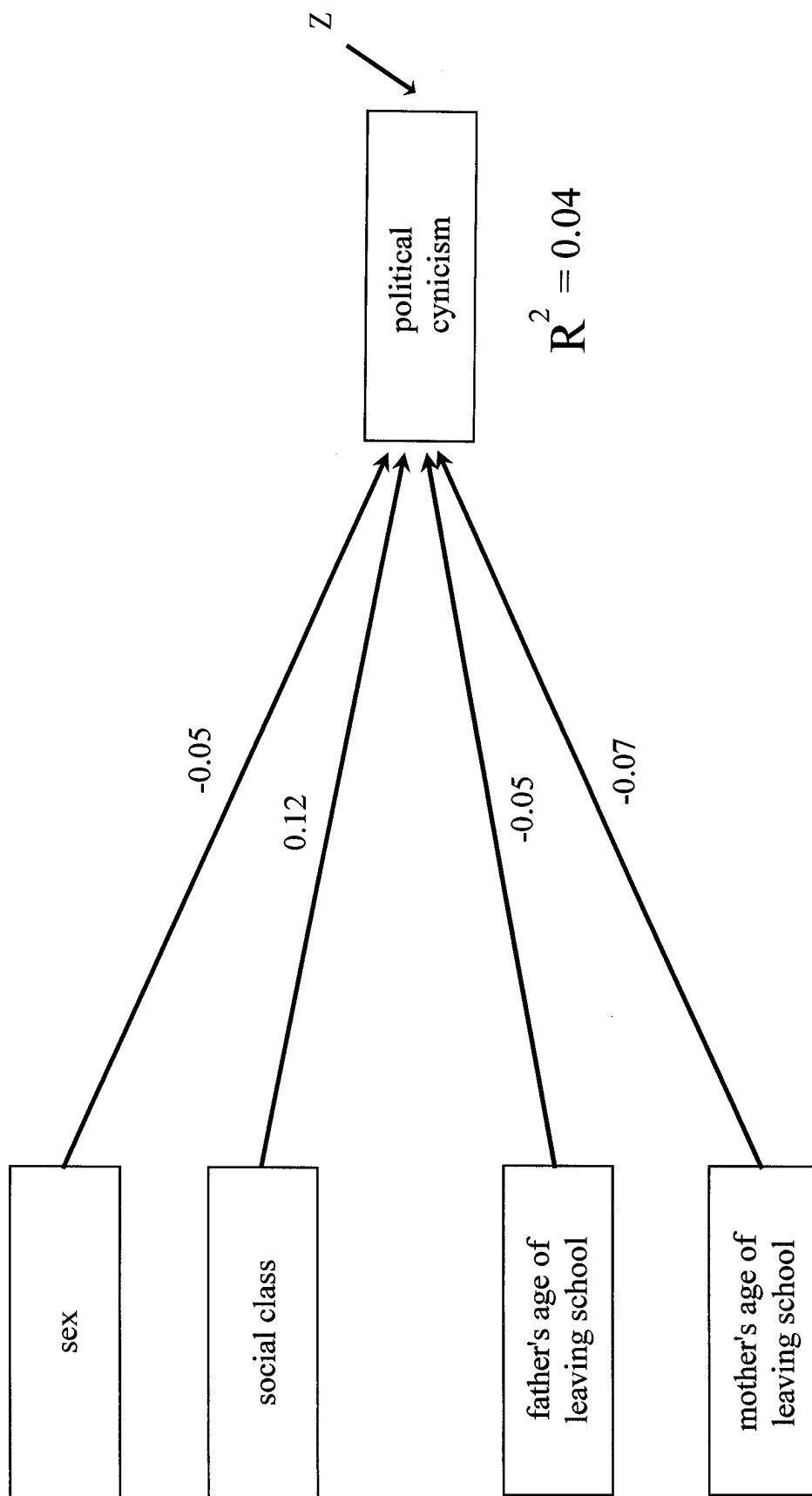
Figure 2

Multiple Regression Model

Model 0

NCDS5

NCDS0



Z - unexplained variation/error

Figure 4

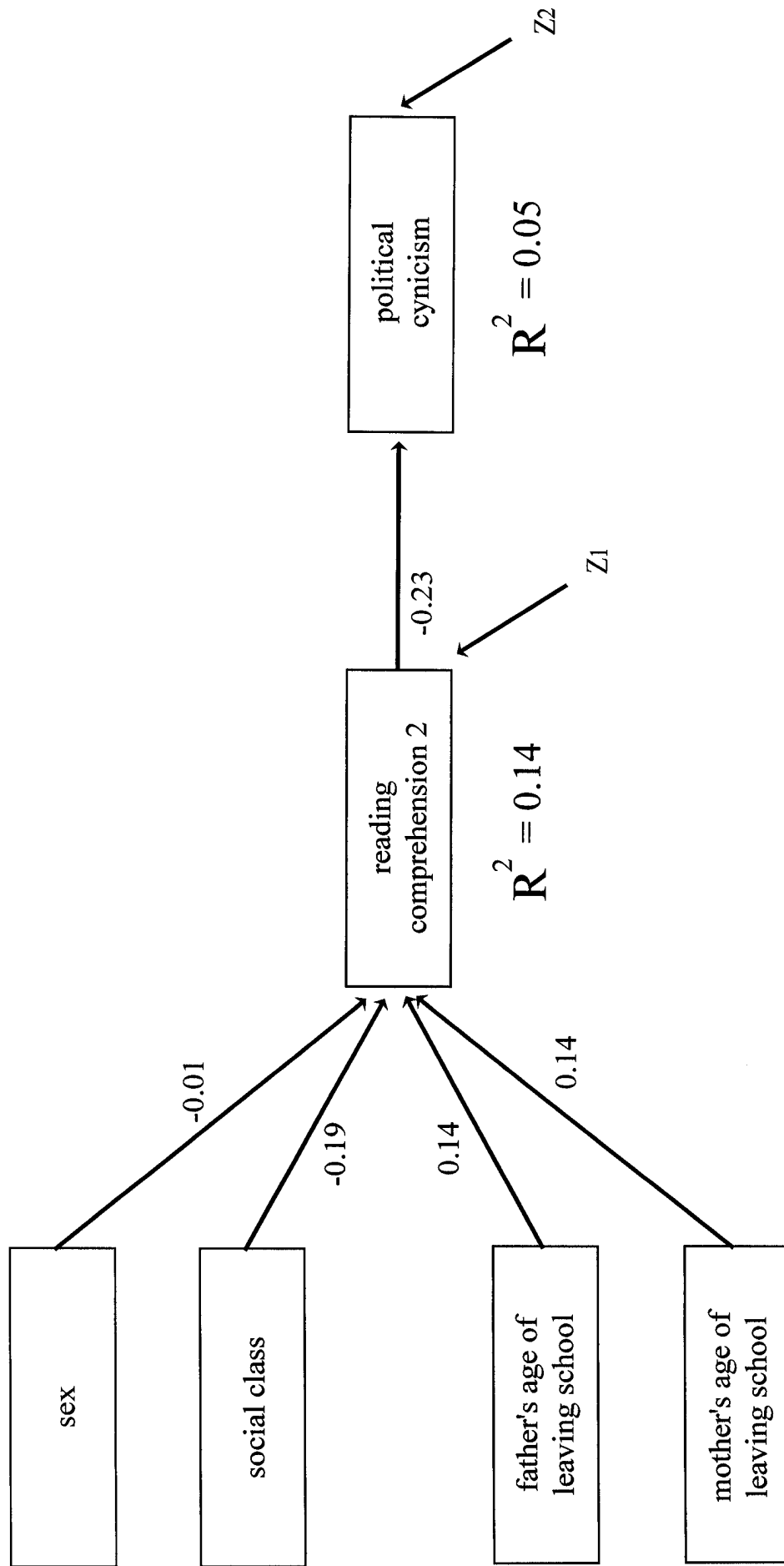
Path Model

Model 1

NCDS0

NCDS2

NCDS5



Z 's - unexplained variation/error

Figure 5

Path Model

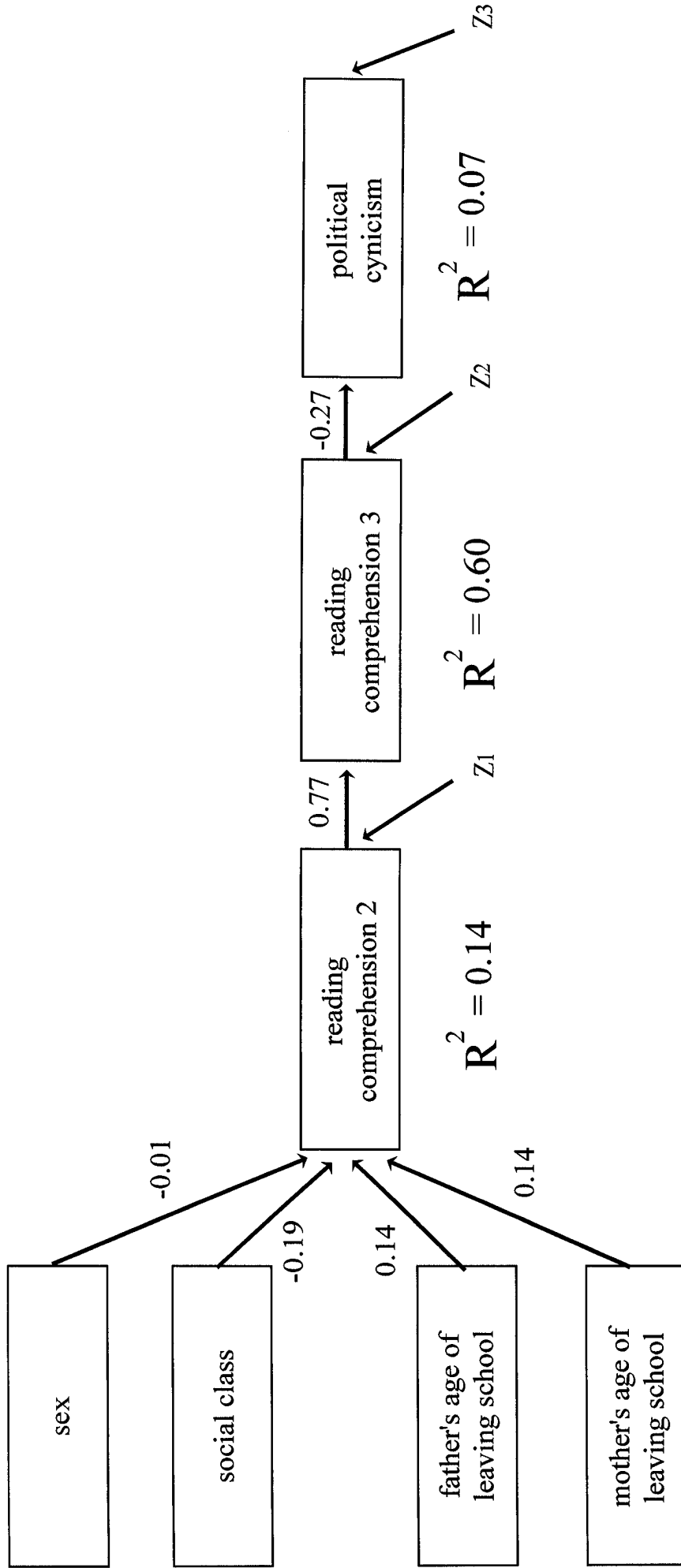
Model 2

NCDS0

NCDS2

NCDS3

NCDS5



Z 's - unexplained variation/error

Figure 6

Path Model

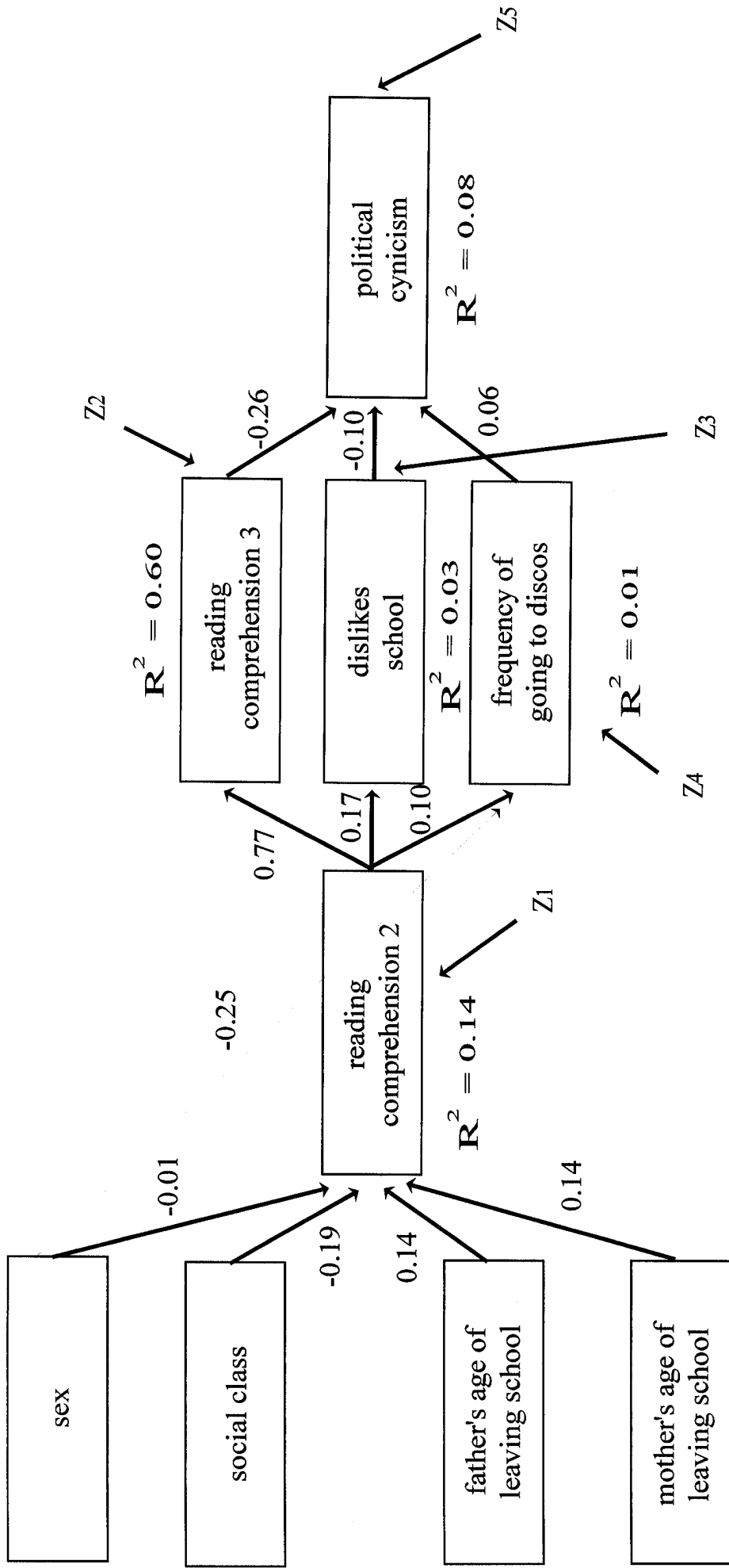
Model 3

NCDS0

NCDS2

NCDS3

NCDS5



Z ' s - unexplained variation/error

Figure 7

Path Model with latent variables

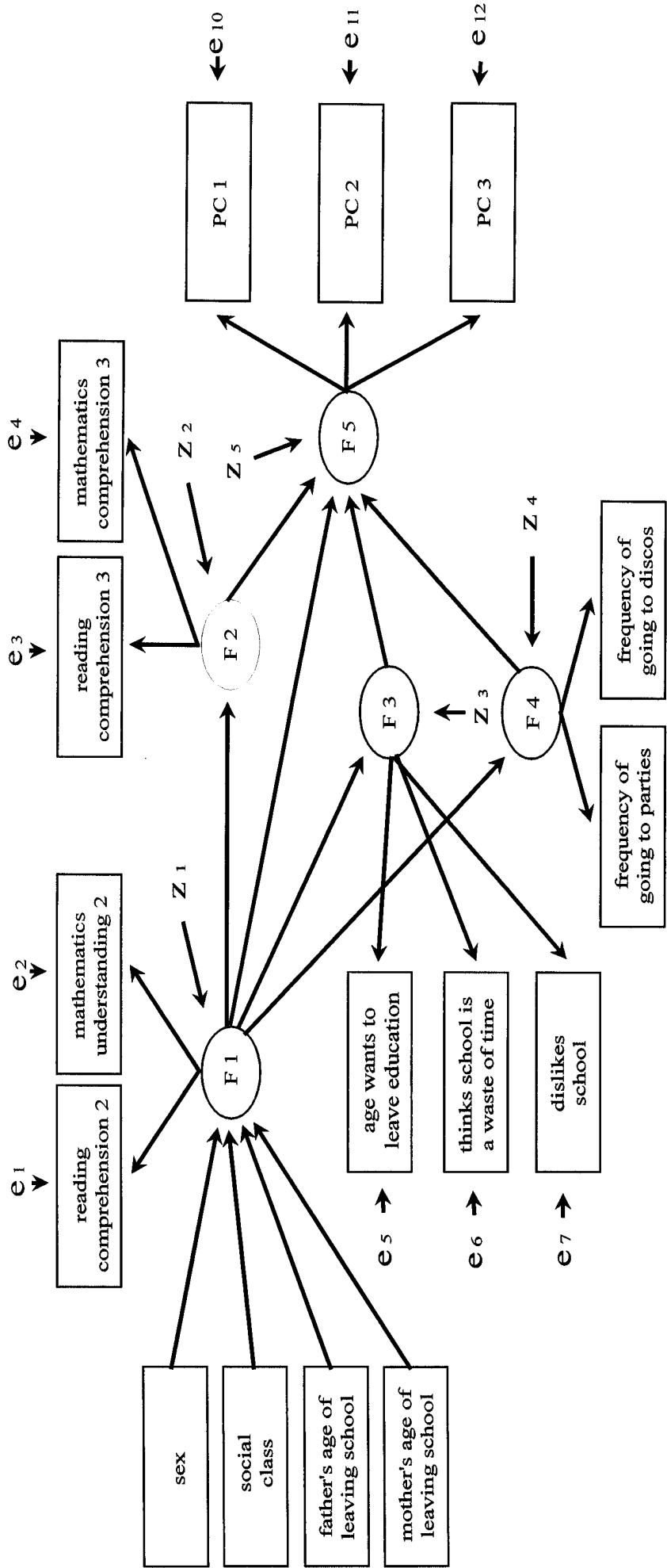
Model 4

NCDS0

NCDS2

NCDS3

NCDS5



Key: manifest variables

latent variables

PC ' s - political cynicism items

Z ' s - unexplained variation/error

e ' s - error terms

F1 - Educational Attainment at 11

F2 - Educational Attainment at 16

F3 - Pro-School

F4 - Teenage Culture

F5 - Political Cynicism

Figure 8

Path Model with latent variables

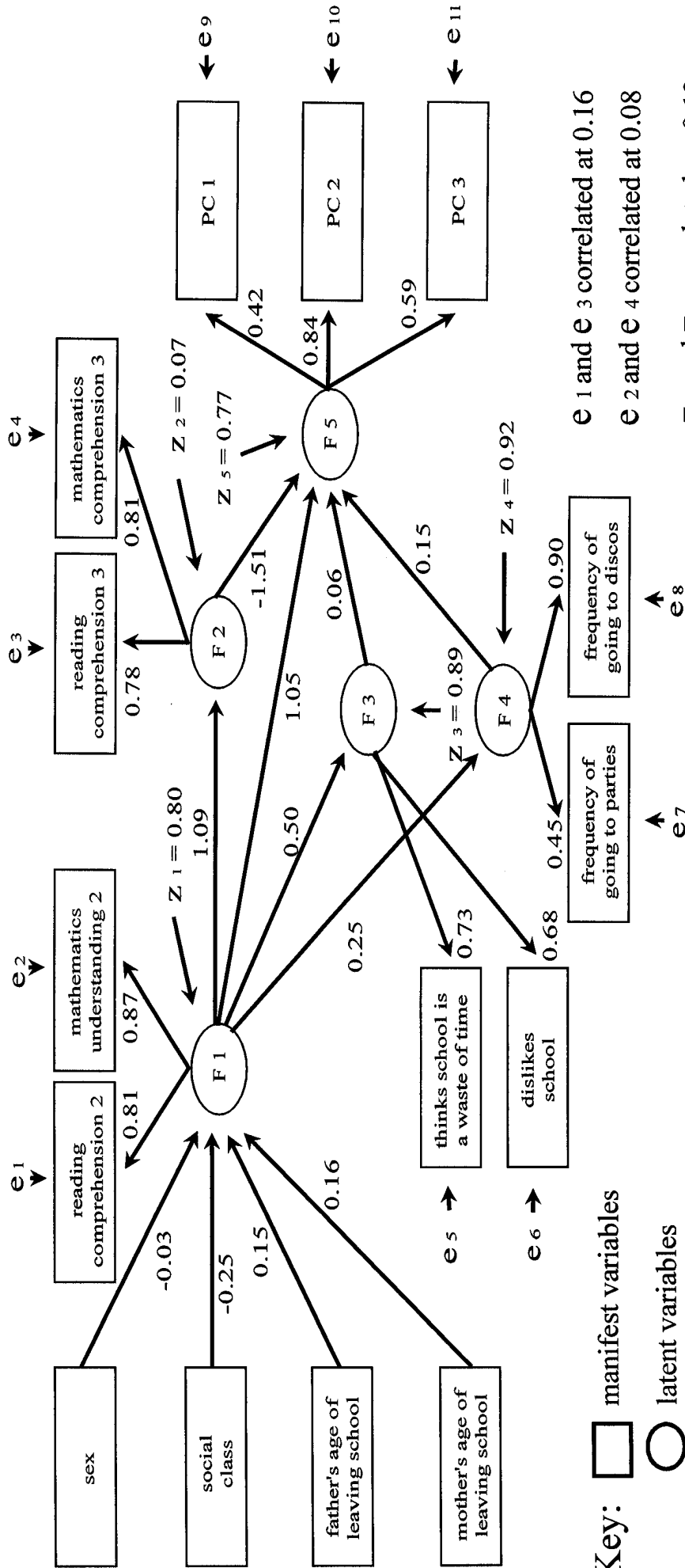
Model 5

NCDS0

NCDS2

NCDS3

NCDS5



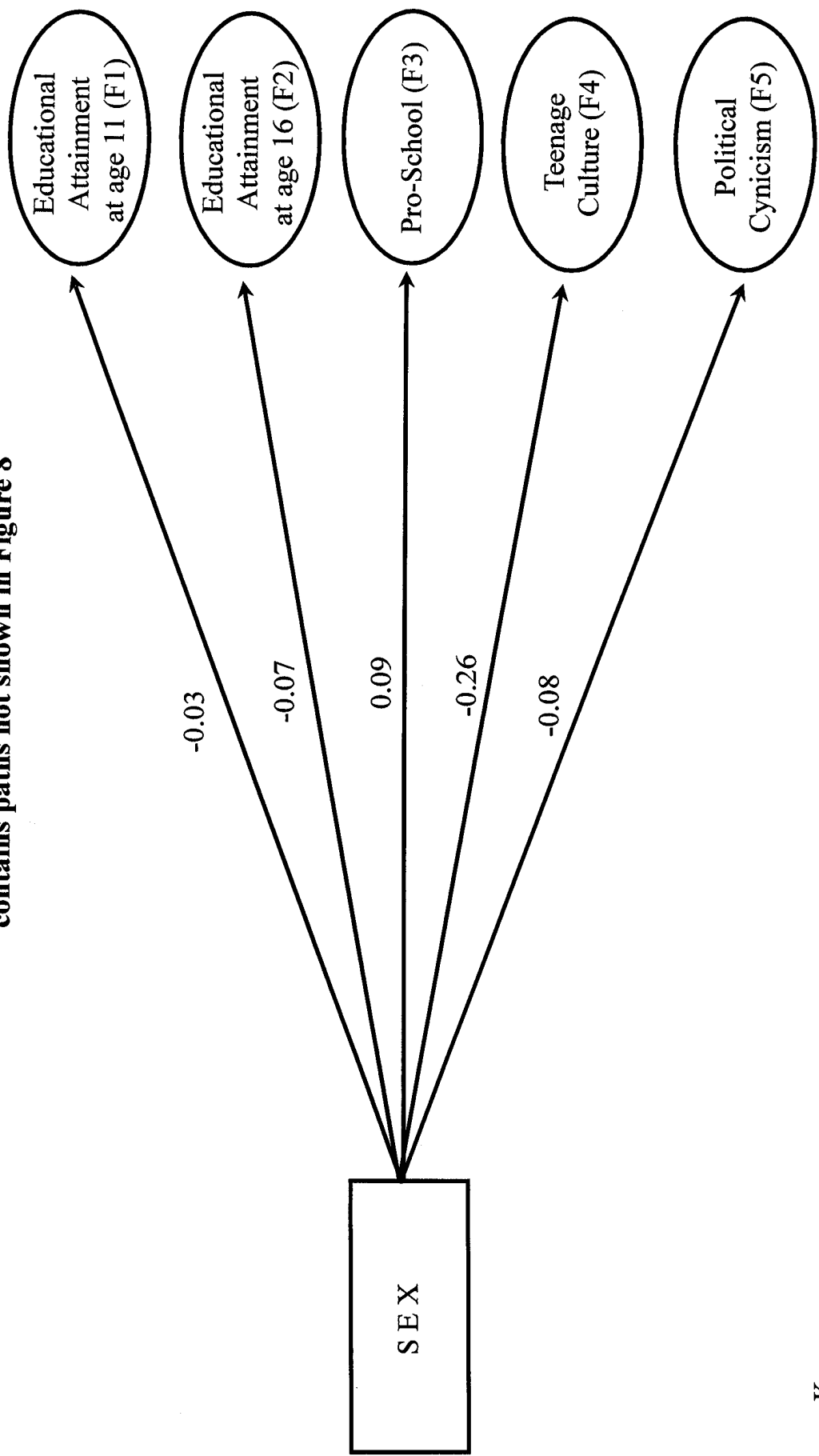
PC 's - political cynicism items
Z 's - unexplained variation/error
e 's - error terms

F1 - Educational Attainment at 11
F2 - Educational Attainment at 16
F3 - Pro-School
F4 - Teenage Culture
F5 - Political Cynicism

e 1 and e 3 correlated at 0.16
e 2 and e 4 correlated at 0.08
Z 1 and Z 2 correlated at -0.12
Z 1 and Z 3 correlated at -0.14
Z 1 and Z 4 correlated at -0.11
Z 2 and Z 3 correlated at 0.15
Z 2 and Z 4 correlated at 0.08
Z 3 and Z 4 correlated at 0.14

Subset of Model 5

contains paths not shown in Figure 8

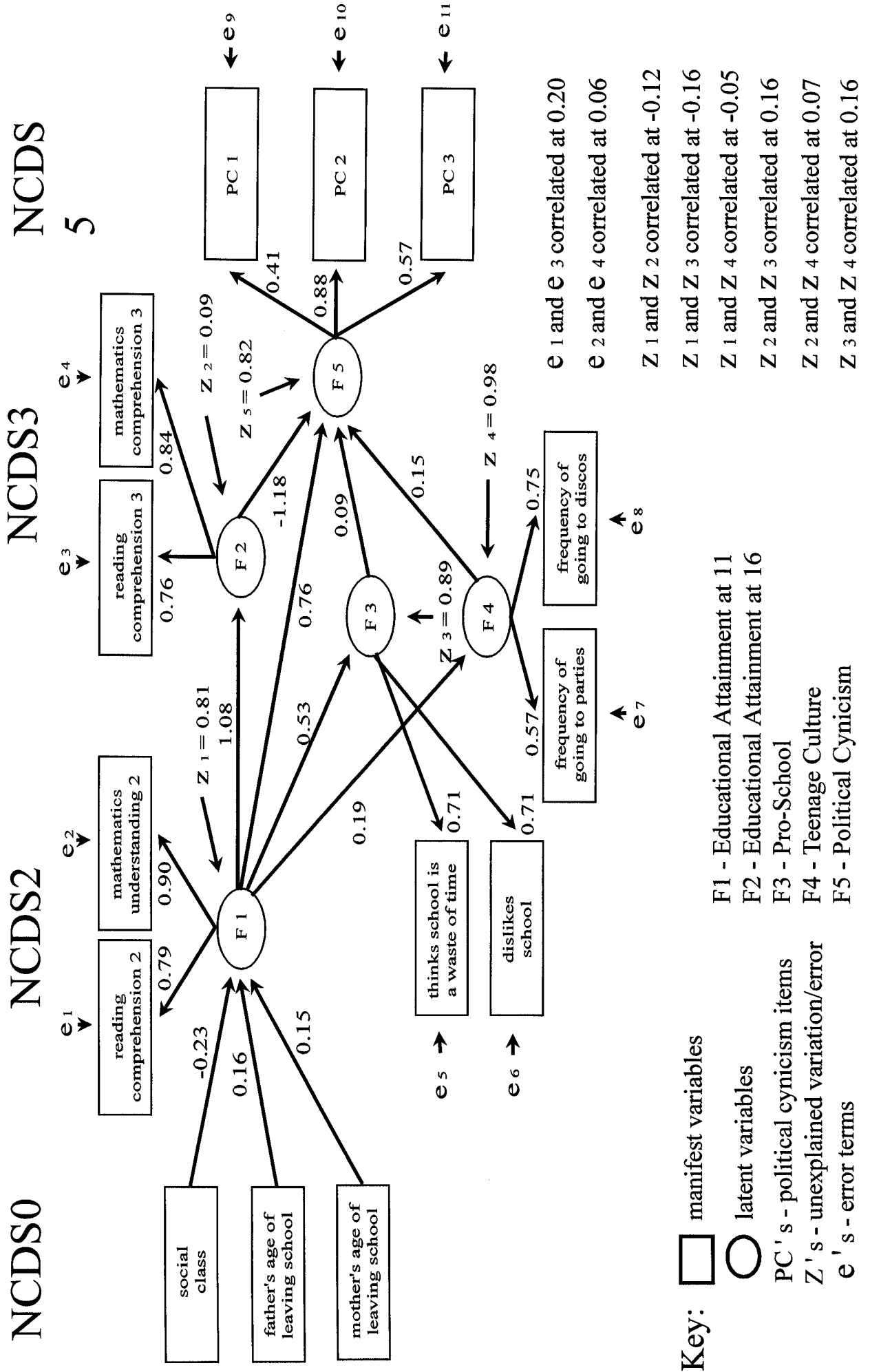


Key:

- manifest variables
- latent variables

Figure 9

Model 5 - males



Key:

- manifest variables
- latent variables
- PC 's - political cynicism items
- Z 's - unexplained variation/error
- e 's - error terms

Figure 10

Model 5 - females

