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Explorations in Social Inequality
Stratification Dynamics in Social and Individual Development in Iceland

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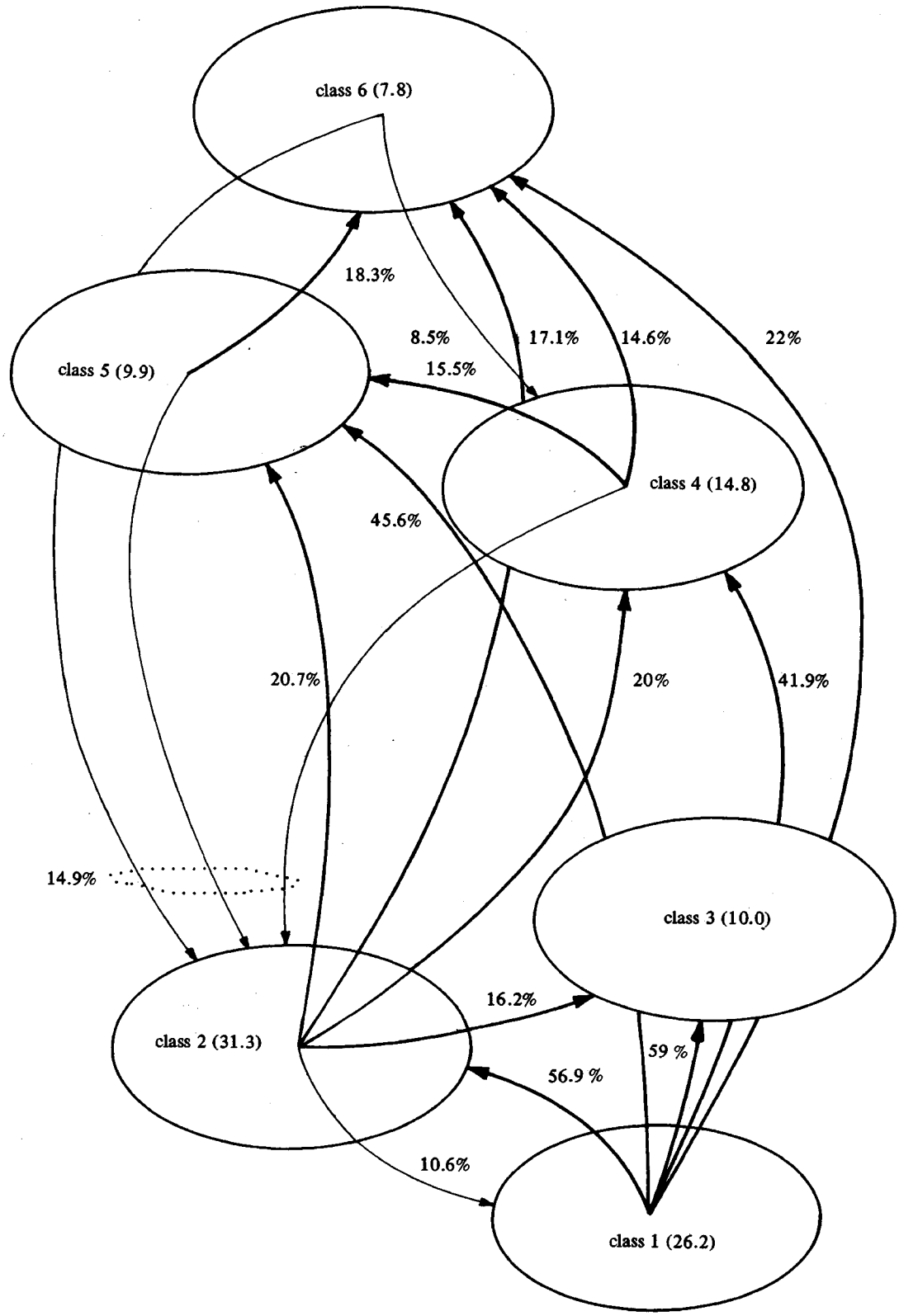
The caption of figure 5 on p. 67 should read:
Enrolment Rates of Males and Females ...

The caption of table 49 on p. 120 should read:
Percentage of Boys and Girls in the Two Highest GPA Ranges Combined at Graduation from Higher Elementary School ...

Figure 1: A Simplified Representation of the Icelandic Stratification System. Arrows Show Mobility Flows Between Classes*



* The percentages given are proportions of terminal class as given in table 6a. Numbers in parantheses represent proportion of class in total population. The graph shows the hypothetical relationships based on the classification of professions. (The percentages were entered *after* computation of the mobility data and can be taken as confirmations of the hypothetical structure.)

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Foreword

The report on social inequality in Iceland presented here contains the reanalyses of data collected by one of the authors, S. Björnsson. These data were originally collected for a mental health survey of 1.100 Reykjavík children aged five through fifteen during 1965 and 1966. The sample also served to standardize the Icelandic version of the Wechsler Intelligence Scale for Children. Further, the children were investigated with the Rorschach test and extensive interviews were conducted with the mothers.

The results of this study raised many questions as to the subject of "class" in Icelandic society — a matter of debate to Icelanders who not only have equalitarian attitudes but entertain quite equalitarian notions of their society. However, the intensive structural change and the radical transformation of the traditional culture and lifeworld patterns that had accompanied the "modernization" phase beginning in the forties appeared to generate a stratification dynamics that might prove to be the more powerful the less it was perceived or, rather, the less the cultural tradition of equalitarianism would permit it to be perceived. For both practical and theoretical reasons it appeared to us important to use the data from the epidemiological study in order to investigate the stratification pattern which "modernization" had produced and, in particular, the differential effects it might be having on the cognitive and affective outfit of individuals growing up in the period of greatest change in Icelandic history. Due to the fact that the modernization process was taking place in a much more accelerated form than in other literate societies of the West, Iceland in less than two generations was passing through a phase of social evolution that social history had taken perhaps two centuries to accomplish in Western Europe. Thus the workings of "history" might be disclosed in the data that we had gathered from contemporary individuals. This appeared even more plausible considering that Iceland provided a rather pure type of socio-cultural homogeneity, and could be considered to be, at the beginning of the process under study, more or less one undivided socio-ecological unit. More practically, we wished to learn about possible effects of the dynamics of social change on processes and products of socialization and believed that a reanalysis of the available data would provide us with hypotheses which we could test in further research — hypotheses that help relate social structure and cognitive and personality development in socialization research.

Björnsson and Edelstein, with a number of coworkers, both in Iceland and Berlin, have now embarked on such a study on "Child Development and Social Structure". Although the present report is altogether independent of the project, the results of the analyses reported therein are relevant for the latter in that they guide some of its main hypotheses.

The help and support of many people and several institutions have made our study possible: Social worker Margrét Margeirsdóttir accomplished the enormous task of taking most of the 1.100 mother interviews; Gylfi Ásmundsson, MA, administered the Rorschach tests; dr. Arnór Hannibalsson administered most of the WISC tests. This work was supported by the Reykjavik Public Health Center and the Iceland Science Fund. Gyda Jóhannsdóttir, BA, besides secretarial work, constructed most of the tables and did much of the significance computations for the present report. For her long and often tedious labors we want to express our special thanks. A grant from the Volkswagen Foundation made the cooperation of the authors possible, in particular the participation of Dr. Kurt Kreppner, whose eminent role in the present study could be acknowledged by nothing less than including him among the authors. Finally, thanks are due to our colleagues at the Max-Planck-Institut für Bildungsforschung: P. Grund who has helped with programming and computations; H. Köhler and L. Krug who have painstakingly revised the tables; L. Krappmann and W. Lempert who have discussed the findings and their interpretations with us and given us much good advice. Last not least our thanks go to R. Ganter and G. Korteweg, without whose unfailing patience in deciphering and typing a difficult manuscript in the absence of the authors this book would never have been brought into a publishable form.

Sigurjón Björnsson
Wolfgang Edelstein

Part I
The Problem of Class in Iceland: Historical Considerations and Empirical Procedure

1.
Introduction

1.1 An Outline of Problems

In their 1964 paper on social mobility and personal identity, Luckmann and Berger wrote:
"It is now generally recognized that social stratification in contemporary societies on comparable levels of industrial development has strikingly similar over-all features. — It appears that what is in the making is a stratification system of international scope which characterizes societies with different traditions, different political systems and different official or semi-official ideologies of stratification. Its salient features are these: — Class becomes the dominant form of stratification, displacing earlier forms such as estates or castes. It establishes itself in societies in which the popular conception of class still contains remnants of the estate tradition, as in Western Europe, as well as in societies in which its reality is ideologically denied, relativized or embedded in an ethos of 'equal opportunity', as in the 'Marxist' world and the United States, respectively. The occupational structure is progressively transformed, with shifts occurring from rural to urban occupations, from primary to secondary and tertiary industries, and, more recently, from manual to white-collar occupations. Relatively high rates of mobility, social as well as geographic, make their appearance. Within a relatively small number of generations the middle strata have expanded significantly. The underlying causes of this transformation did not only affect the stratification system; they changed the social order and left their mark on practically all social institutions.
It has been noted that this transformation produced tensions in the relationship between individual existence and the social order. We argue that, apart from the tensions which might be perhaps considered the transitory birth pangs of modern society, a fundamental change in the relationship between the individual and society resulted. We shall discuss a limited aspect of this change, concentrating on the effect of class structure, and especially of social mobility, upon personal identity."
Three features of present systems of social inequality are salient in Luckmann and Berger's argument: ubiquity, dynamics (or process dimension) and influence on individual identity. It is these salient features that constitute the main foci of the present report: *first*, in the face of general equality contentions of members of the Icelandic social system, we attempt to describe patterns of inequality that prevail in that society. But we also try to understand the reasons that have led Icelanders to their equalitarian interpretation of the social system. *Second*, we describe the dynamic aspect of the system of social inequality — the emergent pattern of a stratification system that affects the life of each and every member of the society. The educational system appears to be one of the main mechanisms at work in the stratification dynamics and therefore a substantial part of the analysis is devoted to the interrelation of class and educational attainment, between and within generations. *Third*, the influence of an emergent system of social inequality on individual identity, due to the nature of the data available, is the most elusive feature, although, in fact, it constitutes the focus of greatest concern to us. This feature should be considered from two different vantage points: One is the influence of the social system on individual identity via the rules and norms governing interactions and expectations, i.e. the structure of roles of adult actors in the system. The other is the pattern of socialization processes induced by a system of emergent social inequality. Luckmann and Berger touch upon both these aspects, yet they grant much more attention to the former.
We believe that these are interrelated perspectives as the action problems that confront individuals in the social network elicit particular patterns of responses to other actors that, fundamentally, also constitute "deep structures" of their socializatory behavior. But viewing emergent inequality from the point of view of action problems for those involved in the system is a far cry from describing how exactly they influence socialization processes. Our data only permit to characterize groups (or collections of individuals originating from what we have defined as classes) with regard to certain attributes such as IQ, school performance, or mental health indicators. We expect these to be, at least partly, outflows of socializatory interaction in families, for which we also have some albeit limited data. Like Luckmann and Berger, we believe a relationship to obtain between social structure and personality, and it is our hope to be able to better specify this relationship on the basis of empirical data. At present, however, we can only speculate on the nature of this relationship, and hypothetically circumscribe the structural conditions for the emergence of certain types of personalities from different sets of life-worlds affected by or brought forth by modernization. It is for future research to test such hypotheses and to specify more precisely the concrete structure and process characteristics relating, via socialization, the social system to personality.
The term "modernization" provides a key to the present survey. Until less than half a century ago, Iceland could be described as a premodern society. Today it is technically a highly modern society, whether we refer to GNP per capita, productivity per unit, number of cars or telephones or energy consumed,

standards of health or schooling (or whatever indicators used in international comparisons to indicate "modernity").

The extreme rate of modernization or cultural change produces severe constraints in all domains of social organization, and for reasons to be discussed below, appears particularly to affect traditional patterns of socialization. The future of the society, we hypothesize, is deeply affected by emerging changes in the pattern of socializatory interaction in families. These changes occur both overall and differentially in the various "classes" as expressions of dissimilar life-worlds emerging with the change process.

Perceptions of equality are the dominant mode of commonsense everyday theorizing about Icelandic society by Icelanders. The "Myth of Equality" (Broddason and Webb, 1975) has been a pervasive interpretive rule for social reality. According to functionalist theory (Davis and Moore, 1945; Parsons, 1940, 1953) inequality is a necessary integration condition of functionally differentiated societies. According to non-functionalist theories (for example Lenski, 1966), social inequality is a structural condition of conflicting interests and power relations prevailing in all societies. Iceland is a highly developed society, with the functional specification of roles that division of labor in industrial societies demands. At the same time it is a highly integrated society, economically, culturally, and socially. Therefore one would expect observation of real social processes to demask the myth, do disclose the stratification system at work in Iceland as in other societies. But there is this anomaly: Everywhere, past and present, societies are perceived by their members as unequal. Wealth, power, prestige and privilege are unequally distributed. Equality is an ideal, or a political goal. Yet Icelanders maintain that their society *is* characterized, by and large, by equality among its members. They may qualify the statement: that of course there are differences in wealth, but that these are not significant; that status and repute are individual attributes, but have no social class connotations; that, in short, while people as individuals are of course unequal in certain respects, these inequalities are not socially relevant nor ordered in terms of class or in a stratification system.

We shall return to these contentions shortly. At this point it is useful to summarize the observations, assumptions and (sometimes speculative) conclusions that partly have led us to undertake the analysis presented here, partly have emerged from it.

a) Icelandic society *because* of an unusually high degree of cultural integration at the turn of the century and well into this century was in fact characterized by an unusual degree of equality among its members. Equality and equality perceptions can be explained in terms of economic and political history and the particular structure of the (literary) culture: The solidarity produced in the entire population by the experience of collective poverty, and, related to this experience, the movement for political autonomy and liberation from Danish rule functioned as a powerful *social* integration device. The quest for political identity in terms of a territorial nation state (the dominant theme since about 1840) dissolved perceptions of estate-based social inequality. For particular historic, demographic and economic reasons amenable to reconstruction Iceland was turned so to say into a single socio-ecological unit with equality as a dominant socio-cultural characteristic[1].

b) In the course of this century, and particularly since the post-war socio-economic transformation of the traditional rural way of life into industrially based, technologically advanced forms of social organizations, modernization has generated intense stratification processes, the dynamics of which have operated profound and far reaching changes on the structure of society and hypothetically, via socialization, on personality.

c) The unusual rate of economic and social modernization has led to contradictions between social reality — in particular the emergent system of social inequality — and its perception by members of the society. These contradictions produce strains and a "secondary" social malaise; as the inequality characteristics of the social system are only dimly perceived, or even repressed from consciousness, interpretive rules for inequality correlates of modernization are neither socially nor politically available. (Critical interpretations of inequality, as used among the political left relate mostly to differences in income and consumption opportunities in a highly inflatory economy, while structurally based inequality remains largely unperceived or, at least, uninterpreted.) Practical problems arising from inequality-generated contradictions in the society are all the more difficult to cope with, as acknowledging or analyzing their

1 It is held to be impossible to perceive social systems as equalitarian unless they are "new" societies in the process of constitution. These societies are characterized, as yet, by a low degree of integration (Wiehn and Mayer, 1975). Thus, America, or more recently Israel, according to these authors, with a multiplicity of ethnic traditions and immigrant groups from a diversity of cultures gave rise to perceptions of equality, that, we may infer, will soon have vanished under the pressing needs of social integration. Clearly, Iceland presents a very different case from equality perceptions of 19th century America or recent Israel.

nature would imply a reappraisal of equality presuppositions of the culture. The social mechanisms of change thus are socially understood and handled at the level of symptoms rather than structures.

d) The contradictions attain a new quality as, on the level of behavior, the continuity of family traditions is assured, whereas disruptive social change has operated on the level of the "deep structures" of action. The traditions of childrearing in particular, based on stray farm experience of independent living, did not give rise to rules and interpretations of parent-child interactions or socialization goals adapted to urban life. While division of labor has eliminated the rural parent from the scene as a model of goal directed, undivided and self-interpretive work, the dominant urban peer group has substituted the family-dominated work orientation model as a socializing agency. Yet parents appear to refer to their own experience of childhood with their own parents (i.e. grandparental patterns of socializatory interaction) as norms.

e) The concurrent operation of intensive stratification processes (appearing on the level of individuals as "occupational mobility") and contradictions in the system of socializatory interaction relating to these processes provoke questions as to the consequences for cognitive and personality development and self-other relationships. In the Durkheimian tradition (Durkheim, 1951) "declassification" suspends the power of the "collective conscience" working within the individual and leads to anomie. Alienation consequences of mobility have been widely investigated in social research as well as differential effects of upward and downward mobility on various social orientations and attitudes (see the discussion of the literature in Bean, Bonjean and Burton, 1973). Cognitive and school performance correlates of stratification have been much researched and hotly debated in the literature on class and IQ (e.g. Deutsch, Katz and Jensen, 1968) and class and educational selection or attainment provided a major focus of concern for educational sociology during the sixties (Coleman et al, 1966; Halsey, Floud and Anderson, 1961; Halsey, 1961; Husén and Boalt, 1968; Jencks, 1972).
However, effects of social structural change and of its mobility correlates on cognitive and personality *development* so far have not received much attention.
It is quite clear that the questions raised in the foregoing paragraphs will not be answered by a survey of some inequality indicators and their covariations with a number of "dependent" variables taken from the realm of cognitive and affective functioning or child rearing styles. Yet any attempt at understanding the interrelated dynamics of social and individual development necessitates a preliminary analysis of social stratification processes and some such correlates. First a culturally and societally valid measure of social or occupational status or class had to be devised; and an attempt had to be made to order social phenomena with the help of such measures. Our report presents the findings that emerged from this enterprise.
However, a *caveat* is justified. In order to produce a culturally valid measure of social inequality (or stratification) in Iceland it seemed inevitable to take a somewhat idiosyncratic stance. The brief outline above may have provided the reader with some of the reasons. We were unable to formulate an empirically useful concept of class that conformed to either the functionalist or one of the non-functionalist theoretical traditions. We shall argue that neither structurally unequal access to means of production, to power or privilege (i.e. conceptualizations of class in terms of power and conflict) nor stabilizing, adaptive or innovative functions (i.e. conceptualizations in terms of functional imperatives) could a priori serve as bases for meaningful operationalizations of class. In a period of massive structural change, and in a system the parameters of which appear less characterized by structural antagonisms than by easy access to economic action, kinship relationhip and, due to the smallness of the population, by concrete rather than abstract relations, Marxian, Weberian and functionalist notions of class seemed in part equally plausible and in part equally unable to account for common sense knowledge of class and stratification processes. We therefore did not think it very useful for our purposes to go into the bulky literature on class, status, power and income differentials that research on social inequality and stratification has produced internationally[2]. For these reasons we did not embark on a comparative study of social stratification and social mobility although, of course, a comparison of Iceland with other social

2 The main theoretical orientations are represented in Lenski, 1966; Bendix and Lipset, 1953; Lopreato and Hazelrigg, 1972; Lopreato and Lewis, 1974; Svalastoga, 1959. Luckmann and Berger present the literature to them (and to us) as they proceed from the discussion of class to mobility and mobility effects on the social order and individual identity without explicitly taking up the issue of functionalist versus non-functionalist conceptions of class. It is a question whether a functionalist position is not underlying the phenomena they discuss (from a non-functionalist perspective) — but rather as more or less conscious motives or interpretive rules in the head of social subjects, in particularly as ideologies of the upward mobile individuals and not as a theoretical position of sociologists.

systems would have been very enlightening. Our intention was merely to produce, rather inductively, a narrowly limited and maximally valid description of the system of social inequality in Iceland, to discover possible imbalances and strains and the role that the educational system might hypothetically play in the processes of stabilization and destabilization. Comparative analysis would, we thought, only lead us into a literature that was generally known, without promising to add much to our knowledge of stratification processes *per se*. A more limited and perhaps idiosyncratic approach might, ultimately, be of greater interest also to others *because* of the particularistic, within-system perspective taken.

Two further restrictions of the scope of our analysis as compared to more orthodox macrosociological approaches should be mentioned. The first is due to our interest in problems of socialization and development. Surely, our analyses and interpretations are biased by our intention to generate hypotheses for further research linking macrostructural concerns to development and socialization within a potentially unified framework. The second restriction stems from the data available for the analysis. It originated from a survey of mental health in Reykjavik conducted by one of the authors (Björnsson). The reanalysis of the survey data consequently focused on elements of the social system that possibly could explain some of its partly distressing findings.

1.2 The Variables

Before we turn to some theoretical and methodological problems pertinent to the study of inequality we shall describe the measures used in the epidemiological survey (Björnsson, 1974) that provides us with the data base for the analyses presented in what follows.

During the years 1965—1966 a representative sample of 1.100 children, aged 5—15 years, evenly distributed as to age and sex, was drawn from the population of Reykjavík, the capital of Iceland, in order to collect data for use in a mental health survey. As the intention was not only to gather information on the frequency and types of mental disorders, but also to gain insight into the relationship between mental health status and various educational, socio-economic, ecological, and other variables, the collection of data covered a considerable variety of aspects.

Sampling procedures: The sample size and sampling procedures were selected for the purpose of meeting the requirements of the Icelandic standardization of the Wechsler Intelligence Scale for Children; as well as by practical limitations. The children were examined as close to their birthday as possible. Each month, 50 children could be tested and their mothers interviewed.

The subjects were selected from the Reykjavik census of 1963. The investigation started in January 1965 with the 15-year age group and continued in descending age until December 1966 when it finished with the 5-year group. Thus the sample consisted of children born in 1950—1961.

First, we picked out from the census for investigation all those children in the respective age groups who had birthdays within the two-month period. This gave us 2.330 children, that is theoretically 1/6 of all children in Reykjavik within these age groups. A number of children had then to be excluded on various grounds, e.g. (1) all children who had attended the Municipal Child Guidance Clinic for assessment or therapy as well as their siblings, as information already obtained about them and previous contact with the parents would have biased the outcome of the investigation; (2) all families who were personally related to or acquainted with the investigators. A total of 150 children were excluded for reasons (1) and (2). The remaining 2.180 children were then listed in alphabethical order within each age/sex group. (3) By descending age, all children on the list who had a sibling in an older age group on the list were excluded, i.e. an additional 219 children. (4) By a random rule, 348 children were dropped from the list, leaving a pool of 1.613 children, 75—80 children in each age/sex group. This constituted the pool of children which was to provide a sample of 1.100. (5) Of this pool, 221 children had moved from the Reykjavik area permanently or temporarily, or could not be traced. (6) 201 children or their parents refused participation for some reason, and 91 were not needed, as the sample was complete before their turn came.

The representativeness of this sample can of course be questioned. The exclusion of groups (1) and (6) is especially critical. It is reasonable to believe that they contain an overweight of mentally disturbed children, so that the percentage of mentally disturbed children arrived at in this study is likely to be somewhat too low.

Nevertheless the representativeness of the sample can to some extent be estimated by the fact that it proved to be entirely satisfactory for the standardization of the WISC test. IQs were evenly distributed for all age groups and no corrective measures had to be taken to obtain a normal distribution.

The WISC test: The standardization is described by Hannibalsson and Bergsson (1971). Usually the test was administered in two one-hour sessions. As this was intended for standardization purposes all items of the test had to be responded to and all verbal responses had to be recorded verbatim. Therefore the administration lasted somewhat longer than usual. Besides this the investigator took his time in establishing contact with the child in which he tried to probe into his fields of interests, his leisure activities, his relationships with teachers, parents, siblings, peers, etc. On the basis of this information and the child's contact with the investigator, his behavior, and manner of working during the test, the investigator wrote a short summary which was concluded with a preliminary assessment of the mental health of each child. From the test and the observational data there thus resulted four variables: IQ verbal, IQ performance, IQ full scale, and pre-evaluation of mental health.

The Rorschach method: Rorschach tests were administrated individually to all children of the sample and recorded verbatim and scored by the same psychologist. As the Rorschach measures are not used in the reanalysis, we do not describe the procedures and classifications arrived at on the basis of the Rorschach data.

School grades: Two types of grade point averages were derived from five groups of school subjects for use in the study. GPA at the end of upper elementary school (grade 8). The school and grading systems are described more extensively in ch. 7 below.

Interviews with the mothers: The main body of information about the developmental history of the child,

his family and surroundings are derived from the interviews with the mothers. As to method and content, this interview was very similar to an ordinary clinical intake or anamnestic interview, with two main exceptions: (a) The information gathered was more extensive than is usually the case. (b) The interview was more structured. All the items, as well as categories of responses, were entered on a questionnaire, although the interviewer was free to present the questions in whatever order she might choose, as well as deciding upon the wording of the questions.

After the interview the interviewer wrote a short summary, including a description of the mother as a person, educator, and informant, the main characteristics of the educational and socio-economic milieu of the child and a preliminary assessment of the mental health of the child.

The interviewer recorded some reponses immediately after direct questioning; others had to be evaluated by the interviewer on the basis of indirect questioning or spontaneous information.

Variables in the analysis: From these data 27 variables were selected and prepared for analysis. Two of these are *mental health evaluations* of the children in the study, one based on symptom load. The construction of the measure is described in ch. 9. The second measure, based on interviewers' evaluation is omitted in the present study. The remaining 25 variables are as follows:

(1) *Family constellation:* This variable was grouped into the following four categories: (i) Intact families. Both biological parents present in a common home. (ii) Broken families. First category. One biological parent present and a parent substitute. (iii) Broken families. Second category. One biological parent present and no parent substitute. (iv) Broken families. Third category. No biological parent present. 86 per cent of the families were intact, 12.2 per cent were of group (ii) and (iii). This variable is not used in the present study.

(2) *Change of residence:* Reykjavík is a fast-growing city. During recent decades the geographical mobility of its inhabitants has been of two kinds: people move to the city from the country and the smaller towns, and families frequently change their domicile within the city. Although the interview contained very detailed information on residential change, a very simple scale was used where only the number of changes was taken into account, without regard to the nature of mobility. This scale consisted of five categories ranging from no change to four or more changes (i—v).This variable is omitted from the present reanalysis.

(3) *Number of children in the subject's family:* This variable pertains to the total number of children which have been brought up together with the subject under study, the subject himself being included in the number. Included are half-siblings, adoptive and fosterchildren, whereas stillborn siblings, siblings who have died in their first or second year, and siblings who have been brought up elsewhere are excluded.

(4—5) *The number of children in the parents' families:* Two variables were defined for the number of children in the mothers' and the fathers' families respectively. In this report, we only use data from the mothers' families.

(6) *Occupational Status of the father:* As no classification system of occupational groups that could be used in a socio-psychological study such as the present one had previously been constructed in Iceland, a classification for the present sample was wrought with many difficulties. The problem in question and the reasons for the construction of the present scale are the main topic of the present report. Much the same is true for the two following variables:

(7—8) *Occupational class of maternal and paternal grandfathers.*

(9) *Working schedule of the father:* A scale of four categories was constructed: (i) Regular day-time working hours. (ii) Irregular working hours. (iii) Working in shifts. (iv) Frequent absence from home for reasons of work. 62.2 per cent of fathers came in group (i), 21.8 per cent in group (ii), 6.1 per cent in group (iii) and 8.2 per cent in group (iv).

(10) *The mother's out-of-home employment:* Three categories were used: (i) Full-time out-of-home employment. (ii) Half-time out-of-home employment. (iii) No out-of-home employment (or less than half-time). 12.8 per cent of the mothers had either full-time or half-time out-of-home employment.

(11) *Number of rooms in the subject's family:* This variable is divided into nine categories, from one room to nine rooms per family. The mean number of rooms per family was 4.18 with a S.D. of 1.44. —83.7 per cent of the families were living in three to six rooms. Variables 9, 10, and 11 are omitted from the present study.

(12—13) *Community origin of the parents:* Two variables give a measure of the parents' origin with respect to the degree of urbanization of the community in which they were brought up, one for the mother and one for the father. Both variables are classified into three categories: (i) Rural communities. (ii) Villages and small towns. (iii) Reykjavik (and foreign contries).

"Community origin" is defined as that socio-geographical region among the three mentioned above in which the parent had been brought up and spent all his childhood and youth.

The denotation rural community covers only isolated farms, as other kinds of rural communities do not exist in Iceland. The maximum number of inhabitants in a village is usually 1.000 — 1.500. The greatest towns outside Reykjavîk comprise about 10.000 inhabitants, but most of them are much smaller. As parents brought up in foreign countries were very few, it was not considered necessary to put them in a separate category.

(14—15) *Educational level of the parents:* Two separate variables were intended to yield a measure of the parents's educational level. They were divided into four educational categories or levels, ranging from elementary to academic level: (i) Elementary school (or less). (ii) Secondary school. Vocational schools (lower technical education). (iii) Grammar school. Teachers's training seminary. Higher technical education. (iv) University. The measure is described in greater detail in ch♯5.

(16) *The mother's attitude toward her own rearing:* This variable was excluded from the present analysis.

(17—21) *The mother's child rearing attitudes toward her child:* During the interview the interviewer evaluated the mother's child rearing attitudes toward her child. The original construction of these variables as well as the modifications operated thereon in view of the present study are described in detail and discussed in ch. 8. In the following we present a succinct overview:

(17) *Warmth/coldness:* Three categories were used: cold, neutral, warm. The warm end of the scale has defined by child-centered rearing practices and orientations and general abstention from physical punishment. The cold end of the scale was defined by the opposite characteristics.

(18) *Permissiveness/control:* A three-category scale was used, ranging from a controlling attitude through neutrality to permissiveness. High control is characterized by restrictive practices, demands for obedience and abstention from aggression against peers and parents; stress on neatness and orderliness.

(19) *Detachment/involvement:* The three-category scale runs from anxious emotional involvement to calm detachment, with neutral attitude defined as before. Anxious emotional involvement was characterized by high emotionality in relation to the child, babying, protectiveness and solicitousness for the child's welfare. Calm detachment meant the opposite of this attitude.

(20) *Consistency/inconsistency:* This is a dichotomous variable. Consistent attitudes were those where the mother seemed to have a well developed set of educational rules and principles and was able to put them into practice. Inconsistency meant the absence of such principles or a frequent transgression of them.

(21) *Aspiration:* This variable was also dichotomous. The distinction was made between low to average level of aspiration and high level of aspiration. High level was characterized mainly by ambition especially with regard to cognitive and learning achievement.

Further variables included in the mental health survey but excluded from the present analyses were the following:

(22) *The father's abuse of alcohol.*

(23) *Marital adjustment*

(24) *Diseases during pregnancy and birth*

(25) *Physical diseases, accidents and injuries to child after birth.*

1.3 Theoretical Considerations

When embarking on the construction of a scale of social inequality to be used for the ordering of occupational groups (or other potentially relevant indications of social inequality or stratification) we were confronted with the following decision: Should we adopt or adapt one of the more or less well suited instruments in existence abroad, for example the Swedish three-level classification by income[3], the Danish scale of prestige (Svalastoga, 1959) or one of the conventional scales based on occupation, income and status ratings either by the respondents or by raters (e.g. Moore and Kleining, 1960; Scheuch, 1956; Scheuch and Rüschemeyer, 1960; Warner et.al., 1949). Or should we attempt to construct a scale of social or occupational inequality or class in view of maximal within system validity and face the risk of low inter-system comparability. From the previous discussion the reader knows which of these alternatives we chose. The following remarks provide some theoretical reasons for this choice.

In recent studies the problem of status is being taken up from the vantage point of the processes of attribution of meaning to social phenomena as experienced by the subjects of a culture (Cicourel, 1973; see also Harré and Secord, 1973, esp. ch. 11 ss.). Whereas concepts like "status" have been taken to apply more or less independently of the particularity of a given system of social inequality, to rely on the subjects' attribution of meaning requires the classification of meaning-generating properties of a historical system. How was it possible for a long period of sociological theorizing not to grant significance to processes of "subjective" attribution of relevance and meaning to the social structures that subjects are involved in and define while simultaneously being defined by them?

It is well known that the present stratification systems of western societies originate in industrialization and urbanization processes during the 19th century. They are mainly based on the saliently unequal distribution of characteristics of industrial work and its correlates among the population, the most important of these being occupation, income, and exposure to education. Therefore the problem of "meaning", in the sense of the experiential base of judgement that is at the heart of interactional or conversational analysis in everyday situations did not arise. Or rather it was systematically defined out or displaced by the status concept. This concept implies judgments comparing individuals and thus appears to account for "meaning". Thus both the objective characteristics of non-functionalist or conflict-theoretical definitions of class are eliminated and the experience-based perception of inequality by subjects is formalized and channelled into a non-malignant, "objectivist" conceptual form. This is achieved through the use of indicators that are taken to represent theoretically independent dimensions of status as the parameters of the system of inequality. None the less the procedure tacitly acknowledges its basic reliance on the distribution of characteristics of industrial work in the population, as it generally results in a more or less stable hierarchy of occupations (i.e. work relations, "conditions of production") and relatively constant correlations between these and the other dimensions of status. The modal paradigm of the system of social inequality was constructed by taking the data from core populations from within a small number of highly developed industrial societies. This explains the more or less stable patterns of occupational and status hierarchies with their well known correlates: income, prestige, education; housing, schooling, health and other quality of life indicators; IQ performance measures, linguistic code properties, communication, socialization and identity patterns (including "mental health"), and value configurations that constitute the subcultural make-up of the status system (Bendix and Lipset, 1966; Deutsch, 1973; Halsey, Floud and Anderson, 1961; Kohn, 1969; Kornhauser, 1965). And it explains, partly at least, why it was possible not to resort to subcultural and specific meaning attributions of subjects located within different life-worlds.

Yet it is precisely these "subcultural" correlates of status measures that have cast doubts, both substantial and methodological, on the universal validity of the hierarchical stratification paradigm. Is it a particular product of a particular history, and have its indicators a particular and limited validity in the historical context of western industrialization processes?

The closer sociologists look at those configurations of psycho-cultural relevance systems that surround status attribution, the more they come to suspect the hierarchical model and the underlying assumption of an array of status characteristics arranged on a continuum. The farther they proceed from the core populations of industrial society to the more marginal (or to pariah) groups within them or to societies in historically different or culturally divergent stages of growth, the less confident social scientists feel about

3 The Swedish classification yields the following class frequencies:
1. Professionals, senior civil servants, higher managerial and large scale businessmen and entrepreneurs (5 per cent).
2. White collar workers, independent farmers and artisans, small scale businessmen and entrepreneurs (35—40 per cent).
3. Working class including smallholders (55—60 per cent).

the validity of the traditional constructs. They may begin to perceive the social class and status systems of western industrial societies as particular cases of the processes of status attribution in an ubiquitous system of social inequality. If we are not satisfied by a mostly nominal definition of "class", research on marginal or historically emergent groups will shed light on processes whereby status differentials are constituted. The study of "subjective" attribution of meaning to social processes and "objective" assessment of the position of individual work performed in a system of work relations *both* appear necessary in order to reconstruct the system of social inequality in which class and status positions are assigned to individuals according to rules that are characteristic of and specific to that system. Stratification in Iceland, a society between tradition and modernization, partly marginal, partly typical, may be a worthy object of study, because it may disclose processes operating elsewhere, or historically, in other particular forms. It is such process characteristics which may help us link the subjective and subcultural attribution of meaning to the objective givens of structural inequality.

1.4 Preliminary Remarks on Procedure

Our original reasons for including "SES" variables were conventional: to discover mental health correlates of social inequality. But when attempting to link our everyday knowledge of Icelandic society to conventional indicators of class, it struck us as more or less obvious that they would fail to perform the task they had been designed for in other societies. In all probability they would miss the systemic properties of Icelandic society, and fail to represent the "real" parameters of inequality. Conversely, in order to construct useful indicators, we would be forced to conceuptualize these "real" parameters of social inequality within Icelandic society.

This, however, presented us with a rather difficult task, as traditional as well as recent mechanisms of stratification and/or "status" attribution in Iceland are matter of conjecture only. Very little sociological or social-psychological research has been conducted in order to investigate stratification processes in Icelandic society[4]. And very few studies besides ours have tried to assess social or socio-economic status at all — irrespective of the problems of meaning and validity raised by such measures (see Helgason, 1964). In fact, the social system of Iceland is practically unknown. This forced us to adopt a quite pragmatic strategy:

We decided, *first*, to use such data as conventional parameters of social inequality would oblige us to use: precise descriptions of a person's occupation or activity and characteristics of these (concrete to abstract; manual to symbolic; degree of responsibility and/or authority etc.). Further, educational attainment and income level were assessed. For the analyses, also data on grandparents' occupation, community, regional origin and thus, data on intergenerational social and geographic mobility, and further pertinent data were available. *Second*, we would construct, on the basis of these data, something like an Icelandic scale of socio-economic class affiliation. In other words, we use our common sense knowledge and empirical information to tentatively classify our subjects into the slots provided by hypothetical scales, corresponding to dimensions such as those mentioned above; thus stratifying our sample in terms that partly are structural and partly "functional" in nature. Although mostly relying on "occupation" as will be shown below (in section 3 of this report) both elements of "class" in a non-functional sense and of "status" are present in our definitions.

Third, this "naive" model of stratification in Iceland would be used *critically*: to spot consistencies and, presumably more important, inconsistencies between the postulated dimensions of the stratification system and those variables that research on other social systems has demonstrated to be systematically linked to class (the covariations of income, education, intelligence, mental health etc. are cases in point). The basic pattern of the variables under study thus is expected to yield further information on the nature of the class and status system, and eventually lead to revisions of the scale if need be[5].

4 The very recent interest in this topic is signalled by the article by Broddason and Webb (1975) on "the myth of social equality in Iceland" and Bjarnason's (1974) MA thesis on the perception of stratification in a small group of urban families.

5 The theoretical equivocations of structural conceptualizations of class versus functionalist concepts of adaptive inequality discussed earlier, as well as, on the other hand, the need for concrete and experientially adequate descriptions of inequality and inductive procedures based on commonsense perceptions lead to terminological embarassement. Our notion of class is based on occupation, yet, as we shall below, class is not defined inpurely instrumental or sectoral terms. The hierarchical (or rank) order of occupations that functions as the operalionalization of the class system (or system of inequality) in our study includes status components, without however reducing the inequality relations to status differences between individuals. We speak of stratification, without however adopting a priori the theoretical connotations implied in occupational sociology and mobility studies as they emerge for example from the socalled ISA projects (Bolte, 1959; Carlsson, 1958; Glass, 1958; Svalastoga, 1959. See also Blau and Duncan, 1967, and the rewievs by Miller, 1960, and Glass and König, 1961). The impossibility to adopt one of the theoretical positions beforehand that we believe is justified on both theoretical and practical grounds thus leads to a decidedly untheoretical use of nomenclature. We accordingly use the terms class, status, stratum etc. interchangeably.

1.5 Outline of the Report

Below we will first theorize about Icelandic society, making use of historical reconstruction (especially of the socialization system which we consider pivotal in the stratification process), literary tradition and commonly held interpretation patterns. We hope thereby to be able to elucidate some of the elements that characterize the Icelandic social system, and to locate parameters of inequality within that system.
Thereupon we describe the construction of a "scale of socio-economic status" based on a classification of occupations into a quasi-hierarchy. This is followed by the presentation of a set of data purporting to demonstrate the capacity of the scale to order social phenomena in a meaningful way. Such data relate to intergenerational mobility, community origin, income, education and demographic indicators.
A second set of data represents analyses performed on what conventionally are termed "dependent variables". These analyses purport to investigate the relevance of the socio-economic categories defined by us. With regard to our measurement device they serve the purpose of preliminary empirical validation. More important, however, these analyses help generate hypotheses about the functioning of change in a social system under modernization press. Therefore the focus is on those representations of inequality that may themselves produce (ulterior) effects on the changing system: cognitive potential (as tapped by IQ) and educational performance (as tapped by grades); child rearing patterns and mental health data. We are aware that in a context of research on change, elements of the *structure d'ensemble* called socialization are no longer adequately defined as "dependent variables", nor would they be adequately investigated in the conventional crosstabulations of independent and dependent variables. Multi-level analyses clearly are needed, focusing on process characteristics of life-worlds rather than on product variables or "outcomes". Evidently, nothing of the sort can be accomplished in our quite conventional analyses. But it is hoped that, on the basis of the approach developed in the first part of the report, these data will serve to throw light upon characteristics and consequences of stratification processes in a rapidly changing society that have not yet been satisfactorily explained.
We shall rely on analytic procedures that remain very close to the raw data: We were more afraid of obscuring meaningful relationships than of appearing to lack in elegance or sophistication. Therefore we refrain from solutions that call on elaborate mathematical transformation of the data and on the corresponding abstraction. We have resolved the dilemma that contrasts measurement and meaning in sociology by staying as close to the experiential data as possible.
In sum, we use rather conventional measures and procedures in order to trace the structure of a system and discover the elements of a condition the investigation of which is clearly in need of more subtle measures and more sophisticated procedures. For us, the effort to gradually disentangle the maze formed by class, sex, intelligence, education, school performance and other factors that enter both into the constitution of the social system and the constitution of personality was a necessary prerequisite to more theory-oriented (and risky) attempts at investigating interrelationships between developmental paths of individuals (and group differences between them), the socializatory life-worlds that determine them and the social structures that act on them.

2.
Contradictions of the Equalitarian Stance

2.1 Common Sense Knowledge of Icelandic Society

One of the problems in assessing socio-economic status in Iceland is that popular opinion does not grant general credence to the concept. The income differences salient to everybody's eyes are not considered to be correlates or indicators of class (or SES). Differential exposure to education often is ruled out, even aggressively, as a contributing source to status differences.

In short, the idea has prevailed in conversations about class that Icelandic society presented unique features of "classlessness", that it is indeed a classless society (see Broddason and Webb, 1975, for a more detailed discussion of this "myth").

A number of common sense arguments is marshalled as proof of this contention. The following is a sample of arguments collected in everyday conversation: "We all have peasant grandparents". "Participation in long schooling (i.e. higher secondary or postsecondary education) is dependent on ability only, not on social extraction as in other countries". "There is no difference between a worker and a civil servant or holder of high office: we all speak together on an equal footing". "We all speak the same language". "We all read the same books". "We all discuss the same topics". "Nobody can be classified into higher or lower class on the basis of his knowledge of language and literary traditions"[1]. "There is no difference in housing, living standards and the amenities of life according to occupation — except that perhaps the traditional cultured caste does *not* aspire to such a high material standing as the rest". "Everyone has a house independent of his job". "There is hardly any difference in the quality of housing, besides the amount of luxury in a tiny group of rich". "We all live above our means". "We all drink like a dry cloth". "Early marriage and high rates of children born out of wedlock before marriage show total lack of concern with class or family in sexual relations or marriage"[2]. "Children are welcome here wherever they come from"[3].

All these common sense arguments contain judgments as to uninhibited social intercourse: they imply that there are no class barriers to impose rules of differential conduct, either economically, socially or culturally. They stipulate substantial equality, norms common to all members of society or rather, perhaps, a common exemption from compliance with normative rules — a freedom to pick roles or reject them at will.

It would certainly be "naive" to take these judgments at face value. Neither is there any reason, however, of discarding them as "ideological" (i.e. as false consciousness) without investigating their social meaning. Are there cues, in the society, as to the significance of equalitarian affirmations in the midst of a modern society with evident inequalities? Are these inequalities ignored as not meaningful to those affected by them? If so, what are the structural properties of a system that largely ignores class and status in any appraisal of social inequality?

1 The argument implies that this knowledge contrary to other nations is universal in the population.

2 Actually, according to recent statistics out of the high number of children born out of wedlock a fair proportion is born within an institution equivalent to marriage — the socalled betrothal relationship — that, although not formally legalized, is considered regular (Björnsson, B., 1971).

3 See also Bjarnason's (1974) documentation of analogous statements from her interviews.

2.2 Some Characteristics of the Social System that Explain Equality Attributions

Icelandic society indeed presents some rather unique features worth considering before proceeding further. These features may throw some light on the socio-cultural relevance of common sense statements of the type mentioned above and serve to elucidate the relation between the equalitarian self-interpretation that is traditional in the *culture* and the incipient processes of status differentiation that may be producing a class system in the *society*.

1. There is an unstable relation (a hypothetical low correlation) between *income level* (or wealth), and *occupational class* (see table 23). An unqualified sailor on a small fishing vessel or a carpenter for example may earn very considerably more money than a university professor or a director of a government department.
2. There have been great *fluctuations* in *income* for various occupational groups over the years. Stability in the relation between incomes of different occupational groups does not obtain. Thus an essential condition for the emergence of an unequivocal socio-economic hierarchy has not between fulfilled so far.
3. The link between *educational qualification* and *occupation* is loose — especially in the now mature or aged generations. It is common that people with very little formal education have been assigned high office in administration or are engaged in work which elsewhere normally is reserved for holders of high educational qualification.
4. The relation between *educational qualification* of *parents* and *social status* still is very flexible. Among the holders of high office (members of the political and administrative élite) sons of "lower class" parents with little formal education (i.e. peasant or blue collar) are quite frequent[4].
5. The social status or *prestige* attached to an occupation often does not at all correspond to its analog abroad. Thus a "low prestige" job such as driving (and many blue collar crafts) may confer considerable status on a person. The prestige of an occupation cannot be well understood without knowledge of local tradition or custom. And the actual process of attribution of status (ascription) to a person, again, appears to take place in a highly personalistic valuation context, i.e. on the "equalitarian" assumption provided by face to face interaction of "equals". Thus, status seems to reflect "respect" rather than "prestige".
6. The Icelandic population is particularly homogeneous both racially and culturally. There is no sizeable immigration or emigration that might affect the population genetically in a socially relevant manner. There is practically no variation in the use of language. There are no dialects. Thus there is no basis for discrimination based on biological origin or language used.
7. Icelanders can hardly be considered to be class conscious. At least their practical interactive behavior as well as the statements documented above show this. Politically "class" may mean conscious division with regard to the interpretation of interest or trade union affiliations. But this is a "learned meaning", superimposed on the common sense interpretation of social reality. It is everyone's avowed policy to prevent the rise of class barriers (such as "beset other societies"). But political language and metaphor is teinted by "populism" — itself "equalitarian" — rather than political value conflicts. Children from all social milieus frequent the same schools and receive the same basic and largely the same secondary education. Peer groups do not — conspicuously at least — form along class lines[5]. University and higher secondary school students traditionally work alongside unskilled manual workers during the long summer holidays. In the capital city of Reykjavik socially homogeneous quarters do hardly exist; quarters or suburbs have up to now housed mixed populations without regard to class; and, conversely, people own their houses (or appartements) largely independent of social position[6].

4 See the mobility rates of the "higher" social groups tabulated below, tables 6a and 6b.

5 This holds true for peer groups below age 12. Bjarnason, 1974, has indicated that, after high school, affiliations tend to emerge that are specific to type of higher secondary school attended. These affiliations probably are beginning to represent hidden class-related association patterns, working towards increasing homogeneity of social intercourse. The role of education in the stratification dynamics is a major topic of the present report, see below, chapter 7.

6 According to the Economic Development Institute of Iceland, "in 1974 approximately 80 % of dwelling units were owner occupied" (Basic Statistics of Iceland 1975, National Economic Institute, October, 1975). A recent survey of ecological conditions in Reykjavik (Reynarsson, 1977) has now demonstrated an emerging differentiation of living quarters by indicators such as declared income, type of housing, number of professional people (doctors, engineers) etc.

2.3 Structural and Historical Reasons for Equality

Independent of any claim to "real" absence of class, facts and/or perceptions such as these need an explanation. We think that the traditions of the peasant culture prevailing in Iceland well into the 20th century and with it the survial of the kinship system at least partly do account for them.
It can be inferred from national census data that in 1910 almost two thirds of the working population was still actively occupied in primary production (farming and fishing). Fishing traditionally had been carried out by fishing-farmers, but became an increasingly independent occupation after the turn of the century. The numerical development of the farming population during the 20th century can be seen from the following table:

Table 1: People Employed in Farming in Percent of the Economically Active Population*

Year	1910	1920	1930	1940	1950	1960	1971
%	47.6	43.5	35.2	32.3	23.9	16.0	11.0

Source: Decennial Census of the Population (for 1910–1960); 1971 statistics on accident insured work weeks. See also Statistical Abstracts of Iceland. Reykjavik 1969, table 54.

* Helgason (1964) listed the actual occupational activities of the total male age group born in Iceland 1895–1897. His criteria for classification differ somewhat from those of the *Statistical Abstracts*, yet his data can be used for a rough comparison. He found that, notwithstanding the high mobility rates from rural to metropolitan regions of the country, 19.2 per cent of these age groups (then around 60 years old) were employed in farming, and 6.5 per cent thereof as farm labor at the time of his survey (1955).

Among the generation *born* before and around the turn of the century farm people thus must have well exceeded half the total age group. By extrapolation, we conclude that around three fourths of the total group born around 1890 is likely to have been born on stray farms (the modal form of farming in Iceland) and farming-fishing hamlets (Edelstein, 1971).
Conversely the development of Icelandic society is characterized by rapid and radical urbanization. While the total population trebled since the turn of the century, the rural population was halved.
These figures summarize very deep and sudden changes that affect the life-world of well-nigh each and every member of the society. They do not, of course, by themselves, explain the anomaly in status attribution along today's occupational hierarchy, such as it appears in the rather unexpected subjective perceptions concerning equality in the social structure. We assume socio-cultural correlates of past farm life extending across the sudden change and into the present, working towards the persistence of these perceptions of equality. We assume an asynchronic relation between the surface structure — economic, demographic, ecological — and the "deep structure" of the meaning-generating system that affects the constitution of the psychological resources of the personality and cognitive systems. We thus attribute social (i.e. meaning and behavior generating) power to the subliminal persistence of evanescent patterns of life, which, however latent, exert a "distorting" influence on the dynamics of the surface structure itself, the type of consciousness available and the interpretive rules or meaning systems (motives) available for action problems, like work or child rearing. A number of arguments related thereto will be developed in the following.

Table 2: Urban and Rural Population in Iceland (Total Numbers and Percentages)

Year	Population Total	Rural	Urban Reykjavik	Townships*	Villages**	4–6	Percentages 3 as % of 2	7 as % of 2	4 as % of 2
1	2	3	4	5	6	7	8	9	10
1890	70.927	63.075	3.886	1.441	2.525	7.852	88.9	11.1	5.5
1901	78.470	62.909	6.682	3.431	5.448	15.561	80.2	19.8	8.5
1910	85.183	57.719	11.600	6.413	9.451	27.464	67.8	32.2	13.6
1920	94.690	54.245	17.679	11.377	11.389	40.445	57.3	42.7	18.7
1930	108.861	49.477	28.304	17.791	13.289	59.384	45.4	54.6	26.0
1940	121.474	46.984	38.196	20.564	15.730	74.490	38.7	61.3	31.5
1950	143.973	39.224	56.251	32.069	16.402	104.749	27.2	72.8	39.1
1960	177.292	36.005	72.407	46.538	22.297	141.287	20.3	79.7	40.8
1963	186.912	34.843	76.401	50.165	25.503	152.069	18.6	81.4	40.9
1965	193.758	34.067	78.399	53.113	28.179	159.691	17.6	82.4	40,5
1968	202.191	33.220	81.026	57.275	30.670	168.971	16.4	83.6	40.1
1973	213.419	29.396	84.333	69.129	30.641	184.103	13.8	86.2	39.5

Source: Statistical Abstracts of Iceland. Reykjavik 1967, tables 22, p. 31, and 17, p. 19. Data for 1968 and 1973 have been supplied by the Economic Institute and the Statistical Bureau.

* Besides the capital there are now eighteen townships in Iceland: three (just) below 1.000 inhabitants; five 1.000 to 2.000; three 2.000 to 3.000; three 3.000 to 5.000; one about 6.000; and three above 10.000 (one of which is a suburb of the capital). The number of townships was two in 1890, six in 1920, twelve in 1950.

** 300 inhabitants or more. The number of villages was five in 1890, 21 in 1920, 30 in 1950, 37 in 1963. Villages count as "urban" in the context of Icelandic ecology. Rural life is stray settlement sheep and dairy farming. Villages are fishing and/or distributive socio-economic units, even if a small number of villagers also run very small farmlike enterprises besides their main occupational activity.

2.4 Kinship Relations

Stray settlement farming grants an unusual preponderance to *kinship relations* over all other relations. The smallness of the population — numbering about 220,000 in 1976 and inhabiting an area of more than 100,000 km^2 — has maintained the importance of kinship relations long after farming ceased to be the main occupation, and after urbanization began — and with it the diversification of the economy and the professional role system. The rural kinship network also serves to maintain regional allegiances and loyalties after the family has moved to the metropolitan areas. The permanence of an archaic pattern of kinship oriented and kinship based *(Gemeinschaft)* relationships counteracts trends to segregate along occupational, professional or social-structural *(Gesellschaft)* dimensions. Individuals typically relate, through the family system, to a set of relatives and friends and friends of relatives occupying widely different professional and/or social positions. Thus, there are, in the society, strong and affectively corroborated institutional barriers against the social segregation of different professional roles. The corresponding cognitions and the absense of affective distance enhance feelings of "being on equal footing" with occupants of widely diverging positions. They foster habits of uninhibited social intercourse between members of different social "classes", who are perceived as equals. Incidentally, the level of information about different professional roles and values is high, a factor which points to a cognitive element in the constitution of status systems often overlooked[7]. To sum up, the basic role of the kinship system in Icelandic society serves to generalize attitudes of equalitarianism that are typical of relations between occupants of different social positions *within* a group of relatives, to social intercourse between people who are not united by family ties.

7 This level of information about professional roles is also the common sense source of knowledge we rely on as researchers, however reflexively, when classifying individuals according to a hypothetical stratification system. See below section 3.2.

2.5 Socialization Patterns

The basic importance of kinship points to the crucial influence of the family regulating, through socialization processes, the system of normative rules and interpretations of social interaction.
On the level of conscious norms of conduct, there is no difficulty in grasping the mechanism at work: perceived patterns of interaction, e.g. familiarity between holders of different social roles provide models for imitation and/or habituation.
However, there is the level of the unconscious norms of action and interpretation that are constituted in family interaction (Mead, 1956; Parsons, 1964; Krappmann, 1969). In the theoretical perspective of interactionism we may consider the interface between personality and social structure as a sensitive area where conflicts are staged, contradictions can be located, the reflections of change in both systems detected and their direction, i.e. their causal structure, determined.
The patterns and constraints of the system of child rearing and socialization has been briefly described elsewhere (Edelstein, 1971). The following characteristics seem essential:
The patterns of interaction and the types of adult role enactment available to children as models for behavioral and communication skills to be acquired are functional within the universe of discourse defined by the structural properties of the life-world of stray farm families.
Under a self-sustained family system of largely undivided labor, the raising of children is a task common to the older generations present on the farm. On the other hand, children who grow up in a family that serves as the unit of production and consumption as well as the unit of cultural exchange and communication, experience the interaction system as a concrete correspondence of word and work, of semantic sign and action, physically present to the learner. The child seeing his father making hay unterstands the reasons for his activity, the purposes and the consequences ensuing if natural causes prevent its accomplishment. If the seasons fail, hay cannot be made or it deteriorates and problems will follow for the keeping of the livestock. From merely living with his family and perceiving the orbit of tasks around him, the child realizes certain concatenations of cause and effect. The world of the farmers is transparent to him, his universe of discourse corresponds to a universe of tasks and actions.
Whatever father or mother, whatever the people on the farm communicate to the child, every statement refers to understandable facts. A command to go and look for the horses, however bad the weather, appeals to unterstanding as reason and purpose (cause and effect) are transparent. The authority of verbally stated facts is self-evident as is, by inference, the authority of those who utter them: the cows have to be fed, the cowshed cleaned, the meadows mowed, and the hay made. Work is self-explanatory and the world is a web of natural relations. Very few things within this universe transcend the immediately perceivable natural order of things. Whatever is inaccessible to reason is equally so for all who live in it. Everything is shared within a tradition that appeals to reason and presents no grounds for doubt. The traditions are anchored in a behavioral system that is shared by the three generations present on the farm and thus give but little leeway to change. Stability is greater than change between generations. A social system of this order is destroyed when the common frame for production, consumption, labor, communication, child rearing, and education is disrupted. This takes place when production becomes organized in a way that makes use of the division of labor, i.e. at the onset of modern forms of industrial production.
This pattern, we believe, is indicative of and constitutive for the equalitarian stance of the self-reliant farmer. It constitutes what may be termed equalitarianism of action no less than equalitarian attitudes and/or ideology. Under equalitarianism of action the scope of action possibilities allotted to individuals is potentially universal — that is, within the system the total range of action, in principle, is accessible to decisions of the individual functional unit, the family. It is division of labor that brings about differential access to a universe of actions. In the absence of division of labor and without differentiation between the spheres of production, consumption and education or cognitive tradition, essential structural conditions for the distribution of statuses in a system of social inequality are lacking. Inequality, of course, is demonstrated within: in the guise of the authority system of the farm. But that is a functionally validated authority in a life context rather than a system of status distribution. Inequality is also demonstrated outside: in the "objective" hierarchy of office. Again it is an authority system rather than a system of social distribution or ascription of status.
Equalitarian relations then, characterize social interaction between the independent units. Equal status is more or less mutually assumed and underlies the everyday interaction of people[8].
The static world of authority, hierarchy *and* equality, however, reaches well into the present century. Its *formal* structure has survived, as it seems, the relatively sudden eclipse of farm culture, perhaps because that very suddenness precluded adaptation. The pattern of previously meaningful interaction appears to

be conserved in socialization processes of families long removed from the farm way of living where they had been functional.

Bronfenbrenner (1958), in his overview over socialization research in the United States, pointed out indications in Miller and Swanson's (1958) Detroit studies, that "mothers *with parents* of rural extraction adhere to more rigid techniques of socialization than their urban counterparts" (italics added). The same mechanism of conservation seems to hold true here, but both content and context differ: Miller and Swanson's subjects came to live within an urban culture, a culture gradually diffusing its norms and reaching more resistant groups. In Iceland, the structure of rural socialization apparently is a far cry from "rigidity". Transferred to an urban setting of life, it may in practice acquire the quality of anomie-generating rule-lessness. Confusion appears to spring from the fact that child rearing rules, on the surface, stress autonomy themes. But is it content or context that confers the "real meaning" on the rules? It is an old dispute in social science that the observer, when labeling actions (such as "autonomy-related behaviors of mothers") often refers to norms that the subject does not share. But the problem is thornier: The subject does not appear to consciously share the norms he himself practically obeys. He behaves in the context of a tradition that conferred on those norms and rules a different meaning from that objectively present in the actual context. Thus, rules formerly producing the equalitarian stance when employed in a different contextual structure may have changed both meaning and direction. The disruptive change in demographic, economic and social conditions during the last three decades occurring, as it were, overnight may have left intact the surface structure of the traditional pattern of interaction, while at the same time eroding its functional base. The new socio-economic structure has developed in the course of a generation; but models and rules of socializatory interaction did not develop in the intervening time to accommodate urban ways of living. The "fossilization" effect conserving the rules of socialization out of their functional context is as worthy of interest as its counterpart: the eclipse of tradition, and it may provide a key to many modernization conflicts.

One structural reason for "fossilization" to occur we hold to be the absence of "talk about education", i.e. of verbalized common sense theories of education among the farm people, whose rules and objectives of childrearing practices remain largely tacit and implicit, as borne out by practically every literary or biographical document that touches on the topic[9]. Verbal "theories" serve to legitimize action and thus can be learned and consciously subjected to test or contested when felt to be inadequate. Their being verbalized precisely constitutes a condition for their being perceived as inadequate: verbalization includes childrearing among the objects of conscious discourse. Being part of a public discourse subjects a social norm to a test of adequacy[10]. In contradistinction a system of practical rules remaining part of a "silent language" (Hall, 1959) may become mechanical and maladaptive, serving a lost function as would a neurotic structure.

8 This is not to say, of course, that inequality was unknown to the farm-dominated social system. Differences in wealth, power and authority were evident, and some functional differentiation obtained (the clergy, rudiments of a medical profession, administrators in royal service — all of whom were of peasant extraction). But whatever inequality emerged, on the background of a static world it appeared more consistent with estate than class. On the other hand, from the point of view of the experience of individuals promoted to a high estate, their rise was individual and educational and thus earned, often through great hardships, rather than inherited. The common peasant origin related any member of a non-peasant estate to a common socio-cultural reference system. And this would influence the perception of social relationships: the roots in a common background of farm experience, and individual performance as the perceived basis of professional removal therefrom would contribute to an equalitarian interpretation of the world, however static and rule-bound. This interpretation is ideologically corroborated through the political unity of the population in face of foreign domination — the post-romantic struggle for independence which commanded people's minds throughout the latter half of the 19th century and well into the twentieth. While the obvious differences between big and small, wealthy and poor, powerful and powerless formed part of a pattern of common experience which related it to the natural order of things it did not represent the modern type of functional inequality expressed in terms of class and status. It is located, so to say, within the group. Social inequality, in modern terms, is an emergent structure, linked to the emergence of a modern type of economy, to the functional differentiation of work roles, to industrialization and urbanization.

9 See for example: Eyjólfur Gudmundsson frá Hvoli, Afi og Amma (Grandfather and grandmother); Gísli Jónsson, Frá foreldrum mínum (About my parents); Gunnar Gunnarsson, Leikur ad stráum (Play with leaves of grass = Part one of the novel Fjallkirkjan, The Church on the Mountain); Stefán Jónsson, Sagan af Hjalta litla (The story of little Hjalti, a widely read children's book describing the life of a prototypically poor fatherless country child on a farm).

10 See Habermas (1968, 1971) on the function of practical discourse for the critique of norms. — Conversational topics of Icelanders are still very ritualistically linked to the primary experience of the subsistence economy: weather, fish, country work and to kinship relations, expecially genealogy: who is related to whom. Again, an equalitarian function is involved: dialogs about these traditionally universal relevancies obliquely stress the *equality of experience*. The emotional dynamics of shared ritual experiences thus serves to create a collective myth, stabilize an interpersonally valid interpretation pattern, which, by the very enactment of ritual serves to prevent anomie, ward off feelings of guilt and prevent isolation.

Socialization may, under such conditions, be assumed to produce personality systems that are very different from those that socialization rules formerly were geared to. Practices which were functional in a farmer culture dominated by a system of work relations that was to cope with a subsistence economy under extreme natural conditions would lead to a different type of person if used in an urban consumer economy with deeply changed family characteristics. However stable and changeless on the phenomenal level, i.e. with regard to subjectively constituted meanings, socialization patterns functionally, with regard to objectively constituted mechanisms, would develop into the contrary of their earlier intent. Thus the "autonomy values" of rural socialization (self-reliance etc.) when perpetuated under urban conditions, may take on an altogether different meaning (e.g. become productive of "pseudo-independence).

Paradoxically, both the intrinsically "harsh", i.e. work oriented and wordless socialization regime of the stray farm and the equally wordless, but now intrinsically "soft", i.e. child oriented (or perhaps rather consumer oriented) laissez faire regime of an increasingly urban society that superseded the former, seem to foster equalitarian values and attitudes. The older type through modeling action on the autonomy of the essentially self-reliant farmer, the newer type by gearing action to the need economy of the child. It is tempting to speculate on the development of the capacity to deal with frustration or defer gratification, i.e. on the psychological function of social norms under both sets of rules.

The socialization practices in modern urban families, assumed by us to produce individualistic consumers with potentially diffuse identities thus are not perceived to be different, as to their *surface structure*, from those practices in the grand-parental family that produced the self-reliant farmer. The parent generation brought up in the city according to rules that grandparents had internalized when being brought up by their own rural parents (because of the absence of education talk mentioned above) had little chance to master — or even perceive — a different set of rules. Meanwhile the main functional component of these rules, the socialization for concrete work on the insulated and highly cooperative three generation farm, had vanished. It had been replaced by the division of labor and a corresponding differentiation of the family role system and the fragmentation of the child's life between home, peer group and school.

Identity thus comes to be constituted in family interactions that formally conserve the traditional pattern described earlier, but in substantive contradiction to this pattern simultaneously enact the competitive yet unexpressed role-bargaining typical for the life-world of children all over the western world (Ariès, 1962).

The new system also stresses (or permits) early autonomy, if on different grounds. The work related early autonomy of farm children — functionally "small adults" without peers — has been replaced by the early autonomy of children permitted largely self-regulative ("laisser faire") need gratification. This experience is corroborated by the norms of peer groups little interfered with by adults, as would be expected if the rules of farm type socialization persist as surface rules under different conditions.

Self-regulation, the uncontested right to have one's needs gratified may contribute to a type of equalitarianism rather uncommon in more discipline oriented cultures. It would seem to foster the development of individualistic or even anomie-prone personality structure, assertive or passive, as the case may be. The system of action will tend to be motivated by the acquisition of gratifications. Such a motivational pattern corresponds to the "deep structure" that an expanding market in an economically hyperactive community provides. It is the equalitarian model, almost, of a belated Economic Man[11].

11 This reconstruction of patterns of culture in rural Iceland versus prevailing practice evidently rests on conjecture. It is an interpretation of native experience, born out by literary and historical sources. A systematic sociological reconstruction of rural life in Iceland up to the 1920s remains to be done. The same holds true for the investigation of present family structure, socialization process and patterns of social roles and norms governing and interpreting action. The authors are currently undertaking a project ("Child Development and Social Structure") that is intended to bring light into some aspects of this problem.

2.6 Ideological Corroboration of Equality

On the level of culturally conscious meaning, a somewhat parallel process has taken place; apparently it has led to a similar yet unavowed divorce between the content of the cultural tradition and the practical life-world. A strong tradition of peasant literacy is linked to the romantic revival of the 1840s although its roots reach farther back. Romantic nationalism and the linguistic revival naturally turned to the traditional ways of living as the basis and background for the cultural identity of the nation. This the romantic tradition achieved by turning the medieval literary heritage into the living consciousness of the farm community. Conversely, the farm style of life itself became part and parcel of the national identity and ideology, and with it the individualism and the alleged autonomy of the stray settlement farmer, who owes no tribute to anybody else. The culture builds an image of the farmer as a sovereign peasant-king, somehow a direct descendant from the medieval heroes, at one with the powers of nature, a laconic and solitary decision-maker who is subject to none and in interaction with very few others. With reference to the unique vernacular tradition of 13th century epic the romantic revival and its epigones shape the intellectual and moral substance of a pervading cultural meaning system, which underlies explicit socialization and identity building in the generation reared around the turn of the century, when politically conscious modernization begins. The literary testimony to this interpretation is bountiful and perhaps most powerfully if critically expressed by Laxness in his novel Sjálfstaett fólk (independent people).

The remarkable feature in the process is neither the structure of the Romantic movement nor its power over people's minds — a phenomenon well known in Europe. The socially relevant feature is the pervasiveness of romantic values among the local population, the generalized sway far into the present century of the literary models as socializing agents.

2.7 Literacy

The universality of literary sophistication in the population is often referred to as an argument in common sense statements of the equalitarian position. We have given some examples above. This remarkably culturalist opinion reflects experiential truth insofar as, in the mature or aged group, the literary dialog is a major vehicle of communication, independent of schooling and occupation. Universal and substantial literacy, by divorcing the practice of reading from exposure to formal education, thus contributes, with other cognitive elements entering the status system as discussed above, to the perception of equality. It counteracts at least for a long while the emergence of educational subcultures that gradually tie together a particular group's command of a no-longer common culture and its position within the system of social inequality (see Bourdieu and Passeron, 1964, 1971; Hoggart, 1957).

The invocation of literacy, however, does function as an ideology as far as today's younger adult and youth age groups are concerned. There are indications of the collapse of the traditional reading habits — much in need of research[12]. The social functions supporting the habit of loud reading in the common work-and-living room of the farm have long since vanished. But individualized reading habits seem to have lingered on and carried over into urbanized life. Recently, it seems, an unprecedented expansion of the economy, an almost continual inflationary boom since the end of World War II, has restricted leisure time activity as such in the face of opportunities for earning a better life, and especially housing, offered in exchange for the overtime work now practically universal. And the remaining leisure itself has been perhaps even more deeply affected by the advent of TV, now reaching 99 per cent of all Icelandic households.

The pattern of family life, quite naturally, seems to be directly affected by the surge of economic activities taking up what formerly may have been leisure time devoted to reading. On evenings and during vacations home building by the heads of young families is typical. Effects on socialization practices in the "semi-fatherless" families ensueing can be speculated on. The interpretive power of the tradition based on a social order reaching well into this century, appears to have, rather suddenly, withered away. Reading and literature, according to a recent investigation among school children (Ágústsson, 1972, 1976) do not much appeal to the young generation, contrary to what is commonly held to be true for its predecessors. For the first time since the Romantic revival almost a century and a half ago, Icelandic society is experiencing a substantial set of its culture turning into "school knowledge" — a potential heritage for the use of privileged (and perhaps alienated) groups (Bourdieu, 1966; Bourdieu and Passeron, 1964; Hoggart, 1957; Rumpf, 1971; Young, 1971)[13].

Many cues, altough little researched, point to a growing status differentiation along the education dimension, and a growing gap between differently cultured groups. Class specific language codes, cultural habits or social behaviors may before long and with the help of the schools prove powerful agents of discrimination within the system of social inequality. With the fading of literature from the common consciousness, a cognitive element contributing to equalitarianism — the cultural equality so prominent a feature of Icelandic society until recently — will have disappeared.

12 Recently three small surveys have pointed to restrictions in the range of reading in the blue collar working class (Broddason, 1972; Magnússon, 1971; Olafsson, 1976).

13 This is one reason why we take a different stance from that adopted by Hollos (1974; Hollos and Cowan, 1975) in her study of the cognitive development of rural vs urban children in Norway. Hollos hypothesized rural children to be high on cognitive as compared to social-cognitive tasks (on which she expected urban children to perform better), as rural children were less involved in communicative interaction with others and had more experience of perceiving and acting on natural objects. Contrary to the theory advanced by Hollos and only partially supported by her data we expect the less privileged *urban* children in Iceland to perform less well on social-cognitive tasks than rural children due to the elimination of the interaction system of the stray settlement farming family. One objective of the developmental study the authors are undertaking in Iceland is to test the relevance of social structural variables for cognitive and social-cognitive development by differentiating the social network frame of reference used by Hollos while adopting a more strictly sociological position with regard to the functional impact of social structure on individual development.

2.8 Contradictions Summarized

Modernization in Iceland means the disruptive transition to an industrialized, urbanized and highly complex though small social organization in which traditional values have very suddenly tended to become obsolete or even antithetical to the social realities of the day.

a) The society professes equalitarian values, whereas for example in collective bargaining or wage contracts, status differentiation and educational attainment plays a very substantial role[14].

b) Public as well as private opinion professes continuity wtih a peasant culture that affords an ideological argument in debates on many policy issues. The ubiquitous common sense statement: "ours is a peasant culture" is contradicted at least by the demographic facts, as table 2 shows. The present style of life and work is definitely urban and industrial, even on the stray farms (some 11 per cent of the total population in 1973) the prevalent form of rural settlements as before.

This ist not contradicted by the fact, demonstrated both by statistics and the widespread hobby of genealogy, that practically every adult is of peasant descent.

c) Processes of socialization in the family are professedly child-oriented and presumably ruled by traditional perceptions of child rearing patterns in one's own family. In fact, however, in families laboring under structurally induced stresses, these processes seem less warm than laissez-faire and chance observation as well as clinical evidence and research data (Björnsson, 1974) register highly competitive motives for children's schooling as well as the relatively high incidence of the neurotic disorders typically occurring in urban areas internationally. Below we shall return to the problem how child rearing patterns and mental health indicators relate to social class.

14 Witness the exceedingly complicated yearly collective salary contracts of civil servants with the Ministry of Finance, where duration of institutional schooling and examinations play an evergrowing role in the bargaining.

3.
The Scaling of Class

3.1 Introductory Note

In the face of perceived contradictions, we may expect the data of an empirical investigation to disclose the stratification system whose existence is so often denied in common sense discourse. Yet, on the evidence of a social system whose structure and history are fundamentally different from those of the neighboring societies, we do not expect the classical pattern of the hierarchical status system of western industrialized societies to turn up in our data. Rather, we should expect to find cues referring to processes of status attribution at work in the stratification system while many individuals involved in the process would at the same time consciously deny it. Consciousness, however, seems to be contradictory in this respect, as indicated by the little research available on the topic. Bjarnason (1974) in her study of status perceptions in a group of 36 young persons and 55 parents in Reykjavik disclosed the coexistence, in the same minds, of status attributions, i.e. perceptions of inequality, and statements amounting to the denial of these inequalities. This question-begging argument is of the following type: When acknowledging the existence of social status differences, the subjects often tend to utter statements to the effect that these differences are unimportant and do not warrant the contention that status differences exist, as people are fundamentally equal.

When looking for a system of socio-economic class differences we therefore proceed on two premises:

First, we believe that urbanization, the division of labor and the distribution of work relations are indeed creating a system of structural inequality substantially comparable to the class and status systems in other developed societies.

Second, we cannot ignore the substantial difference in the socio-cultural history of social inequality between this society and others. When trying to assess SES differences and classify individuals according to status and class, we have to take into account as fas as possible common sense knowledge of the characteristics of each group as well as the equalitarian background in culture and socialization. In other words, we proceed to look for subcultural specifications, or life-world differences to which inequality in terms of an emergent class system has become linked.

Third, because we have reason to believe that in an emergent class system varying life-worlds of individuals will introduce very substantial irregularities into "images" or "ratings" of status — whether these are carried out by the subjects themselves or by other raters, we cannot use appraisals of status or prestige, or other subjective judgmental acts as a basis for classification. We believe such procedures would raise exactly those questions that scaling of social inequality between members of different occupational groups was destined to help answer: Whether or not, in spite of equalitarian convictions, inequality was objectively present. And whether, if this were the case, it explains some of the phenomena at hand. In the face of the argumentation developed in the previous chapter, subjectively based judgment of status would introduce a circularity from which no issue appeared available. We therefore had to opt for a strategy that used only or mostly "objective" dimensions of work for the scaling of occupations, i.e. for establishing ordinal rankings of occupationally based classes. We do not thereby close the door to a functionalist perspective on measurement of social inequality; neither does our procedure, through the type of data it generates, exclude non-functionalistic interpretations. It is not our purpose to confirm or disprove a theoretically derived hypothesis about class in this study. Our purpose is to construct an instrument that promises to be descriptively useful when ordering data. And that promises to be of heuristic use when generating hypotheses to explain their patterns in future studies.

3.2 The Construction of a Scale of Occupational Class

Björnson's mental health survey sample consisted of 1,100 children. Detailed information was collected about the occupation, education and, as far as possible, about income of 1,090 household heads, mostly fathers, as well as 1,048 paternal and 1,076 maternal grandfathers. We should therefore be able to assess intergenerational mobility and hopefully gain some insight into the development of a number of parameters and attributes of the system of social inequality characteristic of Iceland. As noted earlier, a set of further data relevant to this issue was collected: family composition, family size and number of children, some characteristics of work by members of the family, housing conditions, marital problems and childrearing styles, besides questions concerning the family of origin of each parent, its regional extraction, occupational status, educational level etc. Finally, data were collected on mental health status, intelligence and school record of the child.

The sample of adults, on which the following analyses are based contained 3,214 individuals whose occupation was labeled according to census standards[1]. These occupation labels amounted to 230 after the most evident classifications had been made. For these 230 occupations categories had to be devised that showed some promise as representations of social class or status.

The major dimensions taken into account when classifying occupations were the following:

a) Characteristics of work: closeness to nature; physical properties and organizational frame of work; manipulation of things, handling of symbols, dealing with people.

b) Relative income;

c) Educational and training requirements;

d) Degree of responsibility;

e) Degree of authority over others.

f) Finally, but independently, we attempted to assess the "relative status" of an occupation. However, the perceived irregularities of status attribution[2] besides the almost complete lack of empirical evidence prevented us from determining a classification by using a status attribute. We consider this variable rather to be a social psychological correlate of the stratification dynamics and treat it accordingly as an additional hypothetical characteristic of an occupation — theoretically distinct from the rest. The primary stratification characteristics thus are almost entirely of the "objective" kind — with the partial exception of income[3]. We made — an albeit eclectic — use of traditions of the structural sociologies grounded in Marxian and Weberian thinking and their more modern derivations. Thus, the "dimensions" used for the classification of occupations do not, we think, preclude their partial subsumption under Marxian concepts of class (Wright and Perrone, 1977), although it is quite clear that using such concepts as a basis for definition would have excluded major elements of the system of "functional" social inequality as perceived in the world of work, power and privilege to enter into the picture (see below, p. 37, footnote 7). Thus, the rather eclectic use of theory is persistently subjected to the "common sense theory" derived from everyday experience of work and occupations in Iceland. In case of conflict between sociological theory and everyday knowledge it is the latter which determined the decision taken. It should be noted that among the 230 occupations to be ordered there was none of which we had no first hand knowledge through encounters with one or more persons exercising the occupations. It should also be noted that these inductive procedures nevertheless are followed in a relatively conservative frame of mind as far as basic sociological concepts of class and status are concerned.

The procedure was as follows:

1. First the "highest" and the "lowest" groups were determined. Individuals were assigned to the *lowest* group according to the following criteria: a) their occupation was unspecialized physical work; b) no education or training was required to accomplish it; c) it did not entail any amount of responsibility for things and no authority over other people; d) employment was on a temporary or even daily wage earning basis; e) wages were generally low; f) the work was generally considered to be low-prestige or menial.

The last two criteria had to be used with some generosity, particularly the amount of payment, as fluctuations on the labor market gave rise to considerable fluctuations in earnings, especially among sailors.

The core group thus consisted of unskilled blue collar workers and sailors (deck hands) as well as farm labor[4]. Drivers were assigned to this group as most of the attributes mentioned above apply to them; it is

1 These adults comprise the household head, whose child was under study, as well as the child's paternal and maternal grandfather.

2 See below, p. 33.

3 The reasons for this will be given below, see section 4.6.

common that individuals worked in turn as workers, deck hands and drivers, as the economic opportunities happened to change.

Most small farmers[4] were assigned to this group, as the conditions of life, education and the esteem enjoyed by them corresponded to the characteristic of this group. However, holders of bigger farms commanding a number of farm hands were excepted — all the more so as they often occupied responsible positions in the local self-government. Yet the dividing line between small and big farmers was less than sharp.

2. The definition of the *highest* group caused considerably more trouble. The sample appeared to yield *two* rather than one highest group: *First* there was the best educated group, which possessed professional or specialist qualification certified by a university. These individuals had access to the highest positions in society, enjoyed high prestige and were often powerful within the administrative system. The *second* group were independent businessmen with high incomes and consequently respected and powerful although they often had little education. It was finally decided to assign professionals and top civil servants to one group, and businessmen (employers) to a second group, assigned a position below the former.

The core of the first (highest) group later to be termed *class 6* consists of university trained individuals, members of the medical profession, architects, clergymen, engineers etc. as well as holders of high office such as members of government and parliament (who were placed in class 6 independently of the social stratum which they would have occupied had they not been members of the élite), bishops, directors of state road services, directors of state medical services, heads of government offices, bank directors, executive managers of big government firms, university and — because of their high reputation in Iceland — pre-university teachers. Individuals enjoying nationwide reputation were assigned to this group, e.g. well known artists and writers, editors of national newspapers. Not all individuals in this group had graduated from a university, but in most cases the nature of their activity was such that higher education usually would be required for it.

The second highest group (later labeled *class 5*) comprised businessmen and employers, as well as individuals who served an important function in business, industry or finance. Wholesale and other merchants, proprietors of big firms, directors and managers in industry and trade, craftsmen who were owners of big enterprises, proprietors of big farms, shipowners were assigned to this group as well as those living off their property. This group might be termed the entrepreneurial group, and it is in command of a major part of industrial and commercial capital in the country, as far as it is in individual or privately owned corporate hands.

These three groups together represent the two extremes of the system of inequality in the society, as defined by an aggregate assessment of income, education, authority and nature of activity attended to. Although the stratification system appears, to some extent, to reflect *status* differences, expecially for some upper groups, we believe the aggregation of such characteristics while defining stratification differentials in Icelandic society to be at least partly constitutive of *class*. This, evidently, is equivalent to saying that traditional Marxist class categories, taken alone, are not sufficient to define class, or, conversely, that some revisions of the classical extension of the concepts is needed in order to reconstruct their meaning under present social conditions. Wright and Perrone (1977) show one such possibility. We cannot pursue the matter further at this point.

While we feel that there is a compelling theoretical rationale for preferring the inequality dimensions mentioned above to the status variable, even practically, scaled judgements of relative status, due to the specifics of social history described earlier, would yield highly irregular empirical results. In a society still largely but inconsistently defined by *gemeinschaft* characteristics, regional variations in status systems, the social origins of the raters and kinship affiliation of rated and raters would produce such irregularities, that, far from being random, would affect a status scale in unpredictible and unaccountable ways. It is, however, evident that these stratification characteristics are complex, as are their interrelationships, and a considerable amount of evaluative judgement and common sense knowledge of the society is needed to ascribe them to individuals as well as, conversely, to ascribe individuals to groups on the basis of such characteristics.

Two of the three groups mentioned form "natural" extremes of the stratification system defined above: The basic blue collar groups representative of traditional unskilled manual work in primary production and in those sectors of a developing economy most closely linked to primary production, especially

4 Our classification of farm labor refers to the grandparental generation only. For more precise definitions of farmers see below, p. 46, footnote 2.

construction work. And the social top level of professionals and the administrative power élite certified by education. This group was originally generated by the pull of administrative office roles historically created by the royal Danish administration. It proliferated because of the needs of a developing political and cultural system in the process of rapid functional differentiation.

The third group, however, is of a different nature. It has already been labeled an entrepreneurial group, presumably in command of a considerable part of privately owned mobile and immobile capital in the country. The existence of this group is both a direct function of development, i.e. the expansion and differentiation of the economy and a driving force of that development. But in itself it is a rapidly developing group. The rapidity of that development is held to be reflected by a combination of under-education and mobility: Members of this group often originate within the blue collar or skilled labor groups, and like these tend to have little formal education. The high rate of mobility in this group thus is held, as it were, to bypass the more conventional educational mechanisms of status acquisition and lead more or less directly via economic mechanisms to the entrepreneurial position. The recency of this development, if nothing else, has prevented this group from merging with the traditional and largely educationally defined élite. Or rather: it is or has been kept markedly distinct form the latter. If this hypothesis holds true, we should expect some correlates of affiliation with these groups respectively also to exhibit marked differences.

3. Whereas the top and the bottom groups clearly *also* demonstrate the signs of status differences, and presumably have some subjective consciousness of belonging to a social group, the three "anchor groups" have not been defined as status groups but ordered along the dimensions of a) *work characteristics* (defined by proximity or distance from "nature" or primary production), b) *income* (or rather opportunity for consumption as rated by satisfaction with income), c) *education* (or certified access to higher office or occupation), and d) *responsibility* and *power* (or authority to affect other people's destinies). By progressing away from the anchor points along these dimensions or rather by contrasting other groups with the configurational structures they represent, three further sets could be determined:

a) *Skilled labor and artisans.* This group is defined by contrast with the basic blue collar group closest to it. Members of this group engage in manual work as do blue collar workers. However, contrary to them, their occupations require a modicum of training, and professional education not only acquired on the job, but mostly in specialized vocational schools with certified professional rights reserved for pupils graduating from these schools. Like blue collar workers, members of the skilled group are wage earners and unlike the entrepreneurial group they do not organize their work in business or enterprises of their own; that is, they are mostly in dependent positions, or at most, their control over their work is limited to their own physical person and, in a few cases, a helping hand. However, members of this group often enjoy a very considerable income — higher at times than in the higher strata including the top group (but not the entrepreneurial group "below" that). Income, though, depends on the vicissitudes of economic growth, especially the boom in construction, which has characterized economic expansion periods since World War II. In recession periods incomes will be more limited, and, more important perhaps, job security will give way to fluctuation or even unemployment, as in the recession of 1967/1968. This group thus comprises, first and foremost, all *vocationally trained tradesmen* except those individuals thus trained that are in command of a business firm or in entrepreneurial function. Also such workers were ascribed to this group who served in functions of qualified or skilled tradesmen in spite of the fact that they lacked the training or education required for lawfully entering the profession. (This sizeable group of workers also is a function of postwar economic development calling on skills on the labor market that schools were unable to provide in accordance with the rapidly growing needs, especially of the building trades.) A small number of further trades were also ascribed to this category, if the characteristics of their work were such that specific skills or training were needed to accomplish it, regardless of the mode of acquisition of that skill or training. These groups comprised *foremen*, several types of *inspectors* (mostly technical), fish and meat inspectors, watchmen, caretakers and maintenance men, store-clerks and firemen.

b) The group of *clerical workers* is rather heterogeneous. The main bulk of this group consists of *office workers* without particular training for their jobs, and *shop assistants*. Criteria for ascription to the group of clerical workers are the following:

ba) work is non-manual;

bb) there are no educational requirements for access to the jobs; but manipulation of symbols and the application of rules, regulations and algorithms play a major role;

bc) responsibility for people, property or machinery is either very limited or none; however personal reliability and precision are important;

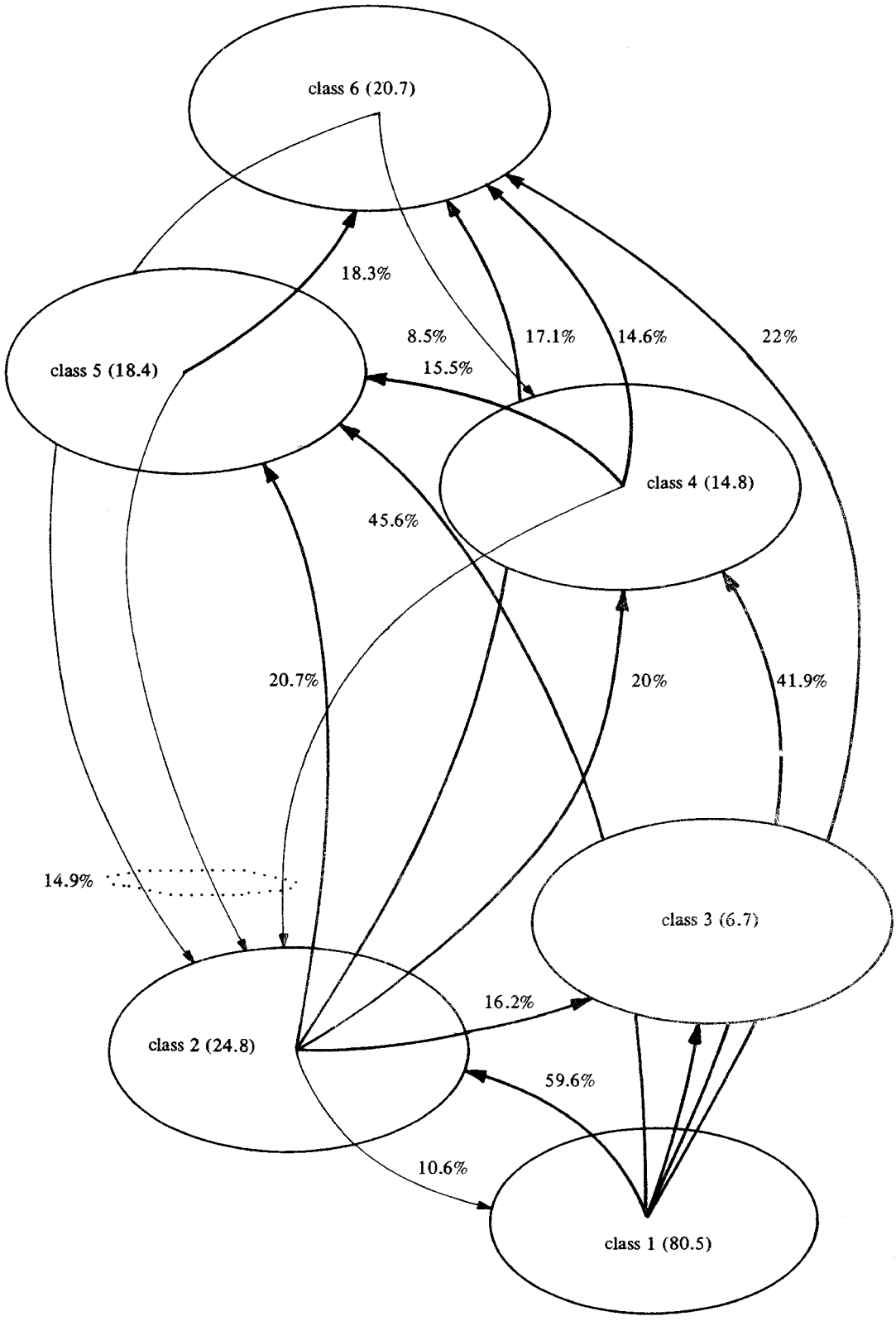
bd) no authority over others is involved, and little say in the organization of work, although some men

might formally be separated from the women in a symbolic office hierarchy demonstrated by differing labels for (nearly) identical functions;
be) wages — paid on a monthly basis — are low, no higher or, at times, even lower than those of blue collar workers. This holds true especially for female office workers. However, a "clean job", job security, sick pay and other social benefits often differentiate the former from the latter. And, last not least, the job often is only a temporary one, taken up by women for a certain time only during their work career. The jobs in this category can thus be summed up as white collar indoor jobs filled by women to a significant extent.
Besides office workers and shop assistants the following professions were ascribed to this category: *bank clerks, post office workers, telephone operators, travelling salesmen, policemen*[5], *customs officers, bank accountants.*
Again, considering the relationship of both the "skilled labor" and "clerical groups" to the basic blue collar group, it does not seem warranted to place them along a dimension of linear progression such as increase in status. Rather, both groups appear as structurally distinct from the blue collar group, but also from one another by criteria of education as well as work characteristics. And for part of the groups involved, income differentials play a very substantial role.
c) Now five groups have been defined. A sizable group remained undefined, however, serving a variety of professions. These people had technical training in various professions, held some authority and administrative or organizational responsibility, particularly over members of the preceding group (b). We might subsume them under the heading of intermediate, distributive, service, administrative and managerial functions. In this category we enter *teaching* and *educational* professions below pre-university schools.
This avowedly heterogeneous group thus comprises: *technologists, technical staff* and *technicians* in the broadcasting and TV services, *technical designers* and *radio operators*; higher ranking *officers* in the police force and the customs, *pilots* of small planes and *flight controllers, captains* in the merchant fleet (medium vessels), and *ship officers* and *harbor pilots*; officials with some managerial responsibilities such as *heads of office* in small firms, *department heads* in offices, business and banking, *representatives* in business, *sales directors*, certified public accountants and cashiers. *Teachers* of all types in elementary and middle schools as well as in special educational institutions below university and pre-university level, headmasters and educational inspectors, as well as preschool and nursery school teachers. Further *journalists, actors, painters* and *musicians* were entered in this category, insofar as they were not classified in the highest group (as national figures); also *radio announcers, disc jockeys, librarians;* finally *farmers with higher administrative, communal or political office,* district officers, communal and city officers.
Group c) could be derived partly by progression from the skilled and clerical groups upward on the scale of education, income and authority, as well as by refinement of work characteristics and self-regulation of work done. Partly it can be derived by descending from the élite professional and administrative groups along these same dimensions. A certain amount of ordinality thus appears to be present, the greatest exceptions therefrom in evidence being the entrepreneurial group at the upper end of the system and, to some extent, the clerical group near the lower end of the system.
With due reservation, our system of ordering occupation along a "scale" of social inequality in Iceland can therefore be summed up as follows:
1. Unskilled manual workers;
2. Skilled manual workers;
3. Unskilled clerical workers and civil servants trained on the job;
4. Technical, teaching and lower managerial;
5. Business, managerial and entrepreneurial;
6. Academic professional.

The degree of ordinality and nonordinality of the stratification system thus derived and the mobility relationships assumed to hold among them can be graphically depicted in the following manner:

5 Policemen are categorized with this group, although their activity is mostly outdoors, i.e. they differ from the remaining group in some aspects of their work characteristics. However, they relate to the corresponding groups of civil servants like customs officers or post office workers. It should be noted that these groups symbolically *represent* authority over others in work. Their power or authority is an instrumental characteristic of the job, rather like an algorithm or a control function, while on the job they are themselves hierarchically subordinate to the authority of others. Lately, for some of these groups, and for policemen in particular, training requirements are being introduced in the form of professional training courses on the job. Policemen, thus, in some respects are moving towards the "technical" group described in the next paragraph.

Figure 1: A Simplified Representation of the Icelandic Stratification System. Arrows Show Mobility Flows Between Classes*



* The percentages given are proportions of terminal class as given in table 6a. Numbers in parantheses represent proportion of class in total population. The graph shows the hypothetical relationships based on the classification of professions. (The percentages were entered *after* computation of the mobility data and can be taken as confirmations of the hypothetical structure.)

The ordinal characteristics of this stratification system seemed generally convincing, although there was some question as to the order of classes 2 and 3. The frequency distribution for both possibilities, however, supported the solution adopted by us. Another question was raised by the "unequal distances" between strata, as evidenced by the analysis: Groups 1 and 2 and groups 4, 5 and 6 showing considerably more structural proximity among themselves than to the rest. Graphically, this would yield a system somewhat like figure 1, indicating a possible 4-layer stratification. The inner dynamics of the stratification processes can be detected in the imbalances of the system and especially by the mobility processes operating the flow between its elements[6]. Historically, the introduction of the division of labor and, concomitantly, of formal educational requirements operate towards the separation of the skilled labor and part of the clerical groups from the basic "unskilled labor" group. At the same time "economic opportunity" separates the highly active and highly mobile "entrepreneurial and business" group from the blue collar group — mostly, it would seem, a result of the post-forties boom in the Icelandic economy. The top group inherits the position that "high office" had occupied in the old authority system; and through the fusion of the process of inheritance with the new dynamics of status distribution class 6 becomes the top layer of a stratification system. The remaining education-based class 4 and part of the clerical group then mirror the functional differentiation in "modern" social systems, which the corresponding occupations serve in their various "technical-functional" and "cultural-service" capacities. They are more or less generated to serve "systemic needs" as direct functions of the system.

To sum up, the six socio-economic groups were derived as follows: First the lowest group (1; unskilled manual workers) was defined, and then, by opposition, its extreme counterpart, the highest group. By analysis of the inner structure of that group, this had to be subdivided into the two top strata, academic professional (6; highest) and business and entrepreneurial (5). Thus the extremes of the scale were defined. Next the second lowest group (2) was defined by separation from the bottom group mainly along the dimension of education, income and characteristics of the work done. This group again was divided from another group (3) along the dimensions of work characteristics and income, thus yielding the two strata above the bottom group: skilled manual and unskilled clerical. This left a residual category, which when analyzed as to its inner structure (that is, its components and their relative position on the dimensions of education, income as well as authority and repute), seemed justly placed in the intermediary position between the entrepreneurial group on its upper and the clerical group on its lower side, its main constitutive characteristic being formal educational requirements for the exercise of the profession[7].

6 For an analysis of mobility processes see below, sections 4.2 and 4.3.

7 In their discussion of Marxist class categories in relation to occupational groups Wright and Perrone (1977, p. 37) operationalize criteria for class position in the following manner (the distribution reported in their study is provided in the right hand column):

	Self-employed	Have employees	Have Sub-ordinates in the job	Employed	Per cent
1. Employers	yes	yes	yes	no	7.4
2. Managers	no	no	yes	yes	37.4
3. Workers	no	no	no	yes	49.2
4. Petty Bourgeoisie	yes	no	no	no	4.3
(5. Ambiguous	yes	no	yes	no	1.8)

We might plausibly subsume most of our six occupational classes under the revised scheme of Marxist class categories as provided by these authors: Our class 5 (entrepreneurs) are largely identical to their employer class, whereas part of class 5, much of our class 6, and part of class 4 would conform to the definition of the managerial class. Occupational classes 1 and 3 correspond to Wright and Perrone's workers, and occupational class 2 mainly to their petty bourgeoisie. However, as will become clear below, formal classification according to (revised) Marxist class categories will not do justice to the social, economic or demographic reality of the Icelandic socio-economic system. Besides a much higher number of unclassifiable subjects ("ambiguous"), for example the group defined by them as petty bourgeoisie historically — and we might add: politically — is part of the "working class" and numerically it is the biggest class in the Icelandic system (see below, table 4). The interpretation of quantitative relationships such as these in terms of Marxist conceptions of the class system is not clear. But perhaps these are minor problems compared to the unsatisfactory "fit" between the class categories and the "real" system of inequality as disclosed by our data. Neither does the income distribution nor many of the other corollaries of class conform to the formal class system as stipulated by the theory. On the other hand, unless it serves to empirically disclose relationships of "real" inequality, even a formally satisfying definition of class relations fails its functional promise.

It is precisely Wright and Perrone's aim to demonstrate the *empirical* usefulness and power of a conceptualization of class in Marxist terms, and in their empirical study they do present a rather convincing case. Again, a close look demonstrates that even a succesful empirical validation of the Marxist class concept does not warrant its generalizability across time and space, unless further efforts of reconstruction are made in terms of the social history and the social system involved.

Part II
Empirical Explorations of Class

4.
Structure and Content of the Class System

As the proof of the pudding is in the eating, we have to test the usefulness of the scale by ascertaining its power in ordering the empirical data at hand. We adopt two strategies in view of this intention.

First, we explore the characteristics of the groups clustered together on the scale either along some of its constitutive dimensions (such as income or education) or some objective structural dimension descriptive of certain ecological characteristics (such as intermarriage patterns or family size). The main exploration along these lines, however, is an investigation of *structural* properties of the system defined by the SES scale. The salient structural properties should be representations of central characteristics of the society presumably ordered by the scale. From the previous account *change*, and its structural correlate in the stratification system: *mobility*, have emerged as the salient features of Icelandic society. The exploration of mobility with the help of our instrument should therefore both yield insights into the working of social process and serve to validate the instrument itself. It should yield parameters for the total system, and differentials for its subsystems that help the sociological imagination to achieve a grasp of the central process.

Second we explore a number of "dependent" variables or dimensions of concern assumed hypothetically to covary with the position of people in the social network. These dimensions mainly order psychological data commonly considered to be attributes of individuals grouped with the help of the SES scale, such as IQ or school performance records of children. It goes without saying that the mere fact of stratifying them along a dimension of social inequality points to presuppositions about the social constitution of these "individual" attributes. Thus the question transcends that of ordering social psychological data with the help of a stratification instrument. It points to the need of an explanatively adequate theory of social differentiation, of which a measurement device must be part and parcel. The variables we subject to this kind of exploration are: IQ, school grades of children, family composition, child rearing orientations in the family, and incidence of symptom behavior among children.

4.1 A Note on the Representativeness of the Sample

Before proceeding to the analysis of our data, it is perhaps advisable to attend a moment to the question whether the 1964 sample of 1,100 families on which our scale is based can claim representativeness. Unhappily, there are no studies available using stratification data, and stratification in Iceland has not been studied, as we have mentioned earlier. Thus the only possible comparison is with census data, which are not classified according to any sociological categories or with a division into social strata in mind. We therefore tally the individuals in our sample according to the census categories at hand.
The census lists all economically active individuals aged 15 years or older in greater Reykjavik (N = 21,340). The sample contains only middle aged adults, who are heads of households with children aged 5 through 15. There is no total overlap between census categories and the occupation labels in the sample. Thus a strict comparison encompassing all occupations of the sample is not possible. The "others" category shows the size of this non-overlapping segment of the population (roughly 10 per cent of the census and 13 per cent of the sample). Neither is the population from which the sample is drawn strictly comparable to the census, which includes much younger individuals presumable still involved in status passages to adulthood and work. We use the census categories for the comparison, although they do not correspond exactly to those used by us. Differences in the definition of the population notwithstanding and in spite of the restrictions mentioned, the frequency destributions of individual categories appear fairly similar. We conclude therefrom that our random sample is fairly representative of the distribution of occupations in Reykjavik as listed by the census of 1960.

Table 3: Distribution of Persons Aged 15 Years or Older in the Labor Force by Main Categories of the Occupation Census. Greater Reykjavik, 1960 Census and 1964 Sample

Occupations	Census 1960* N	%	Sample 1964 N	%
Medical	162	0.8	17	1.6
Arts and literature, journalism etc.	320	1.5	14	1.3
Farming	148	0.7	5	0.5
Services, sports, amusement	1.052	4.9	48	4.4
Teaching	457	2.1	23	2.1
Commercial	1.446	6.8	96	8.8
Industrial, skilled and unskilled workers	9.469	44.4	441	40.4
Sailors, fishermen, transport, postal service	4.137	19.4	184	16.8
Office, clerical	1.663	7.8	96	8.8
Engineers, architects, technological professional	212	1.0	25	2.3
Subtotal	19.066	89.3	949	86.9
Others	2.274	10.7	143	13.1
Total	21.340	100	1.092	100

* Source: Manntal á Islandi (population census of Iceland) Dec. 1, 1960, table 27, p. 92–104, Reykajavik 1969.

4.2 Occupational Structure and Occupational Mobility

Our data on adults concern 3,214 individuals: the fathers or the household heads of the 1,100 children in our study, and the paternal and maternal grandfathers of these children. In the tables below we show the distribution of occupations of these adults according to our classification.

Table 4: Children by Occupational Class of Father

Occupational class	1	2	3	4	5	6	Total
N	273	327	105	155	103	82	1.045
%	26.1	31.3	10.0	14.8	9.9	7.8	100

An interesting feature of the distribution is the frequency of the three lowest occupational status groups[1]. Skilled workers number almost a third of the present adult group, considerably more than the blue collar group. On the other hand, the clerical group is quite small, an indication of the relatively recent emergence of the distributional function in the economy.
Inspection of the next table throws light on the changes which have occurred between generations.

Table 5: Children by Occupational Class of Maternal and Paternal Grandfathers Combined

Occupational class	1	2	3	4	5	6	Total
N	1.204	338	90	157	171	69	2.029
%	59.3	16.7	4.4	7.7	8.4	3.4	100

The salient characteristic that emerges from the comparison of the two tables is the change in the distribution between generations. While the numerical size of groups 2, 3, and 4 has hardly changed through the reduction of the total number by about half its former size (table 4), conversely the relative importance of these groups has wellnigh doubled. The main manpower source for this qualification process is the group of unskilled workers which drops to less than half of its former relative size. Clerical workers and people working in the distribution sector of the economy are hardly more numerous than the members of the administrative and academic élite. The distributional function in the economy is still restricted to the traditional merchant, general office work is still an insignificant part of administrative routine. The emergence of this important function in the rationalization process of bureaucratic organization, the political administration and the economic system (Weber, 1964) is still at its inception.
The overriding feature of the comparison thus is the change occurring between two generations: The middle aged adults of the middle sixties born, on the average, in the twenties or thirties, and their parents. We shall return to this question below.
First, however, it is necessary to draw the reader's attention to an anomaly: the incomparability of the group labelled "unskilled workers" in both tables. In table 4 we have classified mainly what we may term blue collar workers in occupational class 1. This group is comparable to analogous groups in the statistics of other countries. (See above, p. 32 ss for the composition of this stratum.) In table 5, however, the blue collar element is only a part of the group. 537 of the 1,204 individuals of which it is composed (about

1 We repeat that in the following we shall use the terms occupational class, occupational status or social group interchangeably. Regarding reasons for this terminological convention see above, p. 12.

Table 6a: Upward and Downward Mobility between Two Generations

Occupational class of father	N – %	occupational class of paternal grandfather 1	2	3	4	5	6	T	relative size of class in sample	mobile and stable individuals per class up	down	stable
1	N	220	29	9	7	7	1	273	.	.	.	.
	%	80.6	10.6	3.3	2.6	2.6	0.4	100	26.1	0	19.5	80.6
2	N	186	81	11	19	24	6	327	.	.	.	.
	%	56.9	24.8	3.4	5.8	7.3	1.8	100	31.3	56.9	18.3	24.8
3	N	62	17	7	7	9	3	105	.	.	.	.
	%	59.0	16.2	6.7	6.7	8.6	2.9	100	10.0	75.2	18.2	6.7
4	N	65	31	9	23	14	13	155	.	.	.	.
	%	41.9	20.0	5.8	14.8	9.0	8.4	100	14.8	67.7	17.4	14.8
5	N	47	11	5	16	19	5	103	.	.	.	.
	%	45.6	10.7	4.9	15.5	18.4	4.9	100	9.9	76.7	4.9	18.4
6	N	18	14	6	12	15	17	82	.	.	.	.
	%	22.0	17.1	7.3	14.6	18.3	20.7	100	7.8	79.3	0	20.7
T	N	598	183	47	84	88	45	1.045	.	.	.	.
	%	57.2	17.5	4.5	8.0	8.4	4.3	100	100	49.1	15.7	35.1

Missing data omitted (N = 55).

Table 6b: Upward and Downward Mobility between Two Generations

Occupational class of father	N – %	occupational class of maternal grandfather 1	2	3	4	5	6	T	relative size of class in sample	mobile and stable individuals per class up	down	stable
1	N	213	38	10	7	13	2	283	.	.	.	.
	%	75.3	13.4	3.5	2.5	4.6	0.7	100	26.4	0	24.7	75.3
2	N	225	57	14	16	16	4	332	.	.	.	.
	%	67.8	17.2	4.2	4.8	4.8	1.2	100	30.9	67.8	15.0	17.2
3	N	68	14	2	10	12	2	108	.	.	.	.
	%	63.0	13.0	1.9	9.2	11.1	1.8	100	10.1	76.0	22.1	1.9
4	N	77	20	8	26	21	6	158	.	.	.	.
	%	48.7	12.6	5.1	16.5	13.3	3.8	100	14.7	66.4	17.1	16.5
5	N	51	17	4	12	20	4	108	.	.	.	.
	%	47.2	15.7	3.7	11.1	18.5	3.7	100	10.1	77.7	3.7	18.5
6	N	22	16	11	10	16	9	84	.	.	.	.
	%	26.2	19.0	13.1	11.9	19.0	10.7	100	7.8	89.2	0	10.7
T	N	656	162	49	81	98	27	1.073	.	.	.	.
	%	61.1	15.1	4.6	7.5	9.1	2.5	100	100	53.2	16.3	30.5

Missing data omitted (N = 27).

44 per cent) are of rural extraction. These men are small farmholders[2] and as a rule practice that profession throughout their lives. This constitutes a lower limit, however, as a certain number of village people also run small farms usually in addition to their main way of earning a livelihood. Villagers of class 1, however, tend to be fishermen on very small vessels (263 out of 1,204, or 22 per cent). The historical state of a society living off a primary production economy is still striking in these figures: 790 out of 1,204 individuals in class 1 (66 per cent) are concerned with primary production, only one third or probably less can be equated with the unskilled workers in industrial production processes of the kind

that is typical of the modern Icelandic economy. This group equals about 40 per cent of the total grandparental sample. As it is a sample based on children in Reykjavik, it is bound somewhat to underestimate the size of these social groups in the total population.

Among *fathers* of class 1, 119 (42 per cent) are of rural, 54 (19 per cent) of village extraction. But whereas for the grandparental generation occupation can be inferred with great certainty from the geographical label, or type of community, especially so since rural origin under stray settlement farming means *living* on stray farms, this is not so in the parents' generation. Rural origin, on the contrary, means that father's parents ran a farm, while he himself has moved to the city, and analogously with parents of village descent.

Table 6 shows the intergenerational mobility of 1,045 household heads in Reykjavik. Actually, in a sense, it represents within-generation mobility, as occupational class is measured against the occupational status of the father's family at the time of birth. The fathers in our sample of children, it should be remembered, are middle-aged men, whose children range over the age from five to fifteen. An analogous table comparing occupational mobility between fathers and *maternal* grandfathers of the children in our sample (i.e. the fathers-in-law of our household heads) yields a very similar overall picture (table 6b). The occupational structure in the grandparental generation can be considered to be highly consistent. It is replicated almost exactly in the two samples of paternal and maternal grandfathers in our children's sample. It is extremely unlikely that the structure is due to selective intermarriage patterns, so consistent with the occupational stratification. The only selection effect seems to be a reduction in the percentages of grandfathers of "upper class" and skilled worker origins, and a slight rise in percentages of class 4 grandfathers. This may point to the fact that education of daughters does *not* yet, in the parental generation, play a selective role in the choice of partners. The fluctuation is just large enough to demonstrate that the system under study is not a "caste system" regulating intermarriage through social origin only. If this were not the case, upward mobility could only be attributed to functional reasons, resulting exclusively in collective mobility, largely maintaining the distributional pattern. Against the background of occupations in the grandparental generation, the intermarriage pattern is seen as highly consistent with, but not determined by, the prevailing occupational structure.

Table 6 permits a number of interesting insights into the social structure and the characteristics of its change. Tables 4 and 5 are now represented by the percentage column of paternal occupations (middle of table: "relative size of class") and the bottom line (percentages of grandparental occupations). The very sizeable differences in the occupational structure between generations represent the structural change between two states of the system as discussed earlier: The bottom group has been reduced to about half its relative size in the course of one generation, whereas all other groups except the entrepreneurial one have grown to about double their previous relative size. Only group 5, the entrepreneurs, has maintained the order of its relative size more markedly. In figure 2 the structural change occurring between the two generations of grandfathers and fathers in our sample is depicted graphically. The inspection of the percentage columns at the right of table 6 presents evidence that structural change (due mainly to functional differentiation), is coped with mainly through generalized upward mobility, the mean ratio of intergenerational upwards mobility reaching about 50 per cent. It is interesting to note, however, that change is not affected uniquely through upward mobility, as there is a ratio of average downwards mobility equalling roughly 16 per cent. Only about one third of the fathers are "self-recruited" to the occupational class of grandfathers, or in other words, non-mobile intergenerationally. The overriding characteristic of the system thus is its mobility, especially upwards mobility. From the vantage point of individuals in the system, expansion and functional differentiation must present an opportunity structure perceived as "pull" towards higher position.

What are the reasons for the enormous mobility across all social strata? Mobility itself must be divided into two interrelated components: horizontal and vertical. Horizontal mobility can serve as an index of the causal structure responsible for vertical mobility. Urbanization, industrialization, the differentiation

2 In the classification of farmers (of the grandparental generation) we proceeded as follows:
class 1 — small farmers, running a farm with their families or alone, without hired assistance or employed farmhands
class 5 — proprietors of big farms who run their farms like a plant, with the assistance of hired farm workers
— farmers in political office on the communal level (in most cases identical with the previously mentioned group
— farmers owning a fishing vessel and in command of "rowing fishermen"
class 6 — farmers in high political office (members of parliament, ministers)
The number of farmers in groups 5 or 6 is relatively low. See below, table 10. The information used for classification was derived from the interview with the mother. In sum, the interviewer asked her where she and her husband were born and whence they originate, relying on the common interest in genealogy. Then she was asked her father-in-law's vocation, precise questions about the farm, its name and identification and the father-in-law's function following. Due to the persistence of family ties, this information proved very precise and reliable.

Figure 2: Occupational Class of Fathers and Grandfathers (in %)

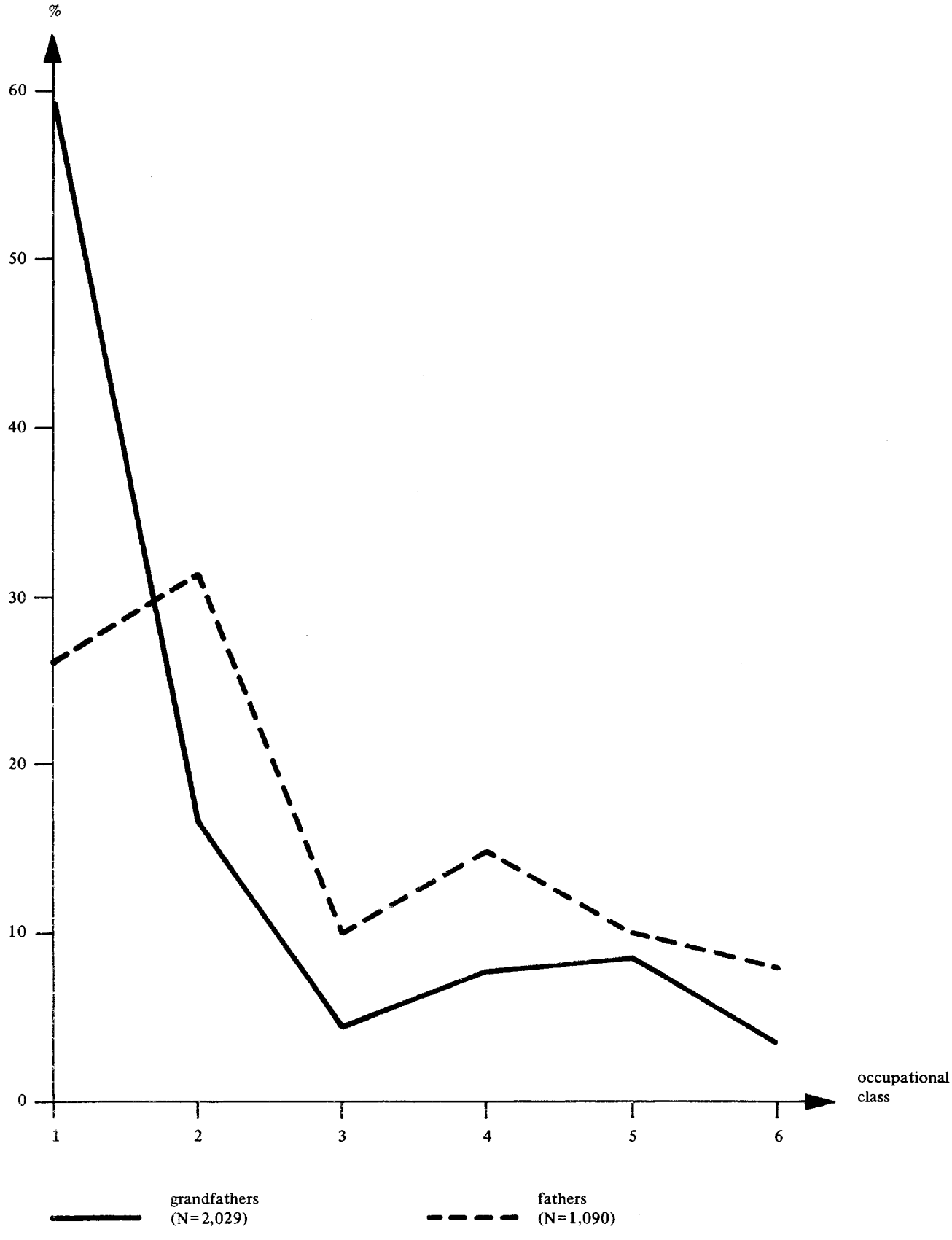


Table 7: Total Population and Population by Region 1901–1974

Total population	1901 78.470	1940 121.474	1950 143.973	1960 177.292	1965 193.758	1974 216.628
Regions:						
Reykjanes	12.025	47.460	70.648	98.417	110.829	128.716
(incl. capital)	6.682	38.196	56.251	72.407	78.399	84.772
West	9.770	9.936	9.975	11.973	12.998	13.862
North-Western peninsula	12.481	12.953	11.166	10.507	10.435	9.940
North	20.249	27.406	28.632	30.010	31.417	33.662
(incl. Akureyri/town)	1.370	5.564	7.188	8.835	9.642	11.689
East	10.634	10.123	9.705	10.367	11.017	11.919
South	13.311	13.596	13.847	16.018	17.062	18.529
(incl. Vestmann-aeyjar/town)	607	3.857	3.726	4.643	5.012	4.396

Source: Statistical Abstracts of Iceland.

of the economic system and the concomitant differentiation and redistribution of functional roles in the economy and the society at large are both causal and interactive features of a horizontal redistribution of the population from rural to urban settlements and from all over the country to the population center around Revkjavik.

Tables 7 through 9 outline the general process of urbanization and economic change dominating development in Iceland over the past decades. But how are these processes mirrored in our sample? How are geographic (dis)location (or horizontal mobility) and functional differentiation (vertical mobility) interrelated when it comes to the individuals and groups affected by the social dynamics?

Table 10 clearly shows the linkage between horizontal and vertical mobility: rural origin is a handicap for status acquisition. Individuals of rural origin are significantly overrepresented among the blue collar workers, and Reykjavik born persons among the educational-technical, entrepreneurial and academic-professional élites. But the urban privilege begins to work at the lowest levels. Even the minor educational requirements of vocational schooling or training for skills in industrial work is a notable benefit for the Reykjavik-born. City origin means access to education, and education means opportunity for status aquisition. The opportunity structure, contrary to a widely held opinion, is not completely open. Urban origin is an advantage, transformed into class position. Village origin is an intermediate step, movement to the city may have originated in movement from the countryside to the village as an intergenerational

Table 8: Total Population and Population of the Reykjavik Area

	Population		Percentages
Year	Total	Reykjanes (including the capital)*	3 in % of 2
1	2	3	4
1901	78.470	12.025 (6.692)	15.3 (8.5)
1940	121.474	47.460 (38.196)	39.1 (31.4)
1950	143.973	70.648 (56.251)	49.1 (39.1)
1960	177.292	98.417 (72.407)	55.5 (40.8)
1965	193.758	110.829 (78.399)	57.2 (40.5)
1974	216.628	128.716 (84.772)	59.4 (39.1)

Source: Statistical Abstracts of Iceland.

* Figures for Reykjavik in parentheses.

Table 9: Distribution of Employment in Iceland among Economic Sectors 1910–1971*

	1910 %	1920 %	1930 %	1940 %	1950 %	1960 %	1971 %
Primary sector:	63.0	58.2	49.6	46.4	34.0	24.2	17.1
Agriculture.	47.6	43.5	35.2	32.3	23.9	16.0	11.0
Fishing	15.4	14.7	14.4	14.1	10.1	8.2	6.1
Secondary sector:	16.6	21.1	26.7	29.6	41.5	45.4	45.6
Fish processing	3.2	3.7	6.2	4.7	6.2	10.1	8.1
Other manufacturing	5.3	7.4	7.4	11.0	16.0	15.4	17.7
Construction	3.7	4.1	5.7	5.5	9.7	10.7	11.3
Communications	4.4	5.9	7.4	8.4	9.6	9.2	8.5
Tertiary sector:	20.4	20.7	23.7	24.0	24.5	30.4	37.3
Commerce	3.3	5.4	6.9	7.6	9.6	13.4	18.2
Domestic services	13.5	10.6	10.4	8.1	3.1	1.3	0.7
Other services	3.6	4.7	6.4	8.3	11.8	15.7	18.4
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Approximate size of the labour force (in thousands)	(35)	(38)	(45)	(51)	(58)	(69)	(88)

* Source: 1910–1960 the Decennial Census of Population, 1971 statistics on accident insured work-weeks.

stepping stone: relatively fewer individuals belong to the lower classes, relatively more to the three higher occupational classes among the village-born than among the country-born. Birth place thus amounts to privilege, opportunity is unequally distributed. However, urban descent is not unequivocally advantageous. There is a bimodal trend worthy of further exploration. While there is a linear trend for affiliation with the educated and propertied classes (4 through 6) to be least accessible to those of rural descent and most easily to the city-born, this trend is not just reversed at the lower end of the scale. To be sure, the city calls for more clerical workers than other parts of the country, as the bureaucracy is located there and

Table 10: Fathers by Community Origin and Occupational Class

Occupational class	rural %	village %	city* %	total %	N
1	42.9	18.8	38.3	100	282
2	29.3	23.7	47.0	100	334
3	31.8	22.4	45.8	100	107
4	23.8	28.1	48.1	100	160
5	22.6	34.0	43.4	100	106
6	15.7	25.3	59.0	100	83
T	30.6	24.1	45.3	100	1.072

* Mainly Reykjavik.

$chi^2 = 40.82$
df = 10
$p < 0.001$
C = 0.20
max. value of C = 0.866

Table 11: Occupational Class of Fathers and Grandfathers by Community Origin of Father*

Community origin of father**	father – grandfather	occupational class of father and grandfather 1 %	2 %	3 %	4 %	total N	"mean occupational class"
city	father	22.1	32.4	10.2	35.5	488	2.8
	grandfather	47.5	23.0	7.1	22.5	951	2.2
village	father	20.9	30.2	9.3	39.5	258	3.0
	grandfather	52.8	15.3	4.2	27.7	498	2.2
rural	father	36.5	30.1	10.4	23.0	326	2.3
	grandfather	81.3	7.0	1.4	10.1	648	1.5

* The farmers in class 5 and 6 among these number 40 (6.2 %) see above, p. 46, footnote 2.

** All community and intergenerational contrasts produce significant chi² s: $p < 0.05$ for fathers of village versus urban extraction, $p < 0.01$ for grandfathers of village versus urban extraction, $p < 0.001$ for all other contrasts.

distributional functions cumulate there. So here the opportunity structure neutralizes the mobility effect. Class 2, skilled workers and artisans, would be attracted to the capital for similar reasons, the agglomeration of industry with jobs for skilled people and the construction boom accompanying the rapid growth of the city. Also, educational and training facilites tend to be less than equally distributed regionally, so that the necessary qualification for the smaller communities is not sufficiently available for a regional balance of skills. To a lesser extent this also holds true for unskilled workers whom jobs in the factories, at the docks and in construction work attract to the city. However, the relative number of rural and city-born among members of class 1 is quite similar.

Before attempting an explanation, we can investigate this syndrome further by a comparison of parental and grandparental occupational class according to community origin.

The privilege of birthplace now appears in a more structured way: average status of Reykjavik fathers is highest when village born — in other words: when mobility away from rural origins is a two-generation affair[3]. Whereas there is a drop in the proportion of lower class grandfathers from over 80 per cent of rural extraction to 47.5 per cent for the Reykjavik born of that generation, this trend is not upheld by fathers. Conversely, the proportion of the skilled labour group increases from rural to city origin, but only for grandfathers; fathers have reached, it seems, a structural stabilization point regulated perhaps by restricted access to the vocational schools and associations, the labor market still being far from sufficiently supplied with skilled workers. The case is similar for clerical and office workers, where no educational requirements for access to jobs obtain. The stabilization of the relative size of this group thus is hard to explain in the face of growing organizational demands. Probably it is the undereducation of this group, the high incidence of women with low job constancy, i.e. the low professionalization demands that bar recruitment to a group whose career expectations remain low for that very reason.

The main contribution to the overall status privilege that birthplace accounts for is made by the three upper occupational classes. It is here that the stepping stone function of the village in a two-phase intergenerational move to the city and up the social ladder becomes apparent. This seems to be the type of mobility most typical of the selective mobility process known in western societies and analyzed in the literature. Thus instead of the rapid one-generational rush, it may serve to consolidate, in the midst of functional differentiation and the disintegration of the traditional order, a kind of truce between social structure and personality that seems a prerequisite for stable identities.

Here, then, another glance at the mobility processes is in order. Apparently, two types or currents of horizontal mobility obtain: a direct move to the city; or an indirect two-generational move, the stepping stone syndrome. We saw that the less horizontally mobile appear more *slowly* upwards mobile, but achieve higher average status. The lower groups on the occupational scale appear more geographically mobile, but achieve less status. Evidently, this raises questions as to corollaries of differential mobility

3 "Mean status", is a problematic indicator. The numerical values suggest an interval scale quality of differences between means, whereas our scale is at best ordinal. We justify the use of this indicator as descriptive of class attributes of mobility, to be read as positions on an ordinal scale of differential group mobility.

and underlying motivational and/or causal patterns influencing mobility. We shall turn to these questions later, in the context of socialization problems. In terms of social history (but certainly not without psychological and socializatory consequences) movement to the city has two issues: one is the bourgeois. The burgher-citizen-bourgeois seems to achieve new status and adapt to the roles his move has made him acquire. We do not know the prize he or his children have to pay. And this may differ in function of the rate of mobility he has had to accommodate to, and in function of the cultural standards he has to give up for those he has to acquire. The second is the route of proletarization. This holds true mainly for the earlier type of emigration to the city. Becoming a worker "on the gravel" of Reykjavik, as the expression goes, is proletarization, as it means the loss of a traditional lifestyle and the loss of stable roots in the "land" for the barren "gravel" or "sand" of the seaside city. The world of work is transformed from a job of caring and catering to a job of handling and manipulating; production turns into wage earning, independent planning into routines. We do know that the economic depression and ensuing poverty drove people from the farms, but we do not know about the psychosocial correlates of proletarization, nor do we know its effects on the following generation. In order to know we would have to reconstruct biographies and investigate differential effects on cognitive capabilities or personality attributes (see Elder, 1974). In any case, the link between the historic and macro-dimensions of social structural dynamics and the micro-dimension of life process is easily demonstrable. For the decision to "move to the gravel" Icelanders used another no less vivid expression: "to tear oneself up" (in the sense of tearing a plant up with its root). the expression renders the anomie-generating nuance of rootlessness, but also the decision-making stance of initiative and self-assertiveness; perhaps even it contains, in the "up", the aspiration of the upwards mobile. The vicissitudes of individuals as subjects and objects of social process are brought to awareness in this phrase. It is for social science to reconstruct and understand these vicissitudes and their consequences for the unconscious heritage handed down to another generation, a heritage that produces personalities even after the process of functional differentiation and structural transformation that caused the acceleration of change has come to an end.

"Functional differentiation" constitutes a causal link between horizontal and vertical mobility. It is largely synonymous with a transformation of the opportunity structure (both geographical and social) which exerts a mobilizing pull on the individuals in the system. But still in another sense functional differentiation hypothetically is a causal structure: intervening between the traditional macro-structure and the emerging micro-organization of social groups, it links the psychological transformation and modernization of personality (Inkeles and Smith, 1976) to "objective" social process. Its causal sway, we hypothesize, stems in a preliminary way from the transformation of the system of *modal action problems that confront individuals* according to their functional roles, in their work, and, transcending work, in their public and private interactions, especially in the way they handle their family lives and socialization tasks. We shall return to this question below. Education, quickly, becomes a central function in the mobilization process, both deriving from it its pulling power on individual and family decisions and contributing to it through the vocational and attitudinal "sets" it produces. Changes in patterns of aspiration, in the motivational set-up, as well as in the individuals' symbolic organization are closely linked to the role that education now plays in their lives as an interpretive force for the organization of biographies. Again, education is both cause and effect, a link between macro- and micro-levels of causation. The functional consequences of educationally mediated qualification processes affect the organization of the socio-economic and role system. But these reflect back on the role of education itself, turning it into the selective mechanism extensively analyzed by social scientists all over the industrial world (see for example Halsey, Floud and Anderson, 1961). And again, the educational organization of socially selective processes on the level of psychology and personality produces the adaptive press, activates the capacities for functional conformity called for by the imperatives of a changing system. As these achievements are rewarded by the system in terms of "appropriate" success (Bourdieu, 1964; Parsons, 1964; Young and Dykes, 1972), the definitional power of formal education over individual biographies has grown tremendously as mirrored quantitatively in the growth of the educational enterprise, and qualitatively in the subjective importance it has in the lives of families as a major action problem. Education thus can be held to be the main immediate corollary of mobility, a positive feedback system first corresponding to and then, with ever growing power, enhancing its effects until, finally, it becomes its major vehicle and promoter.

If mobility is a feature so universal in the system that it reaches almost two thirds of the individuals composing it and half of the total mobility is upwards (see table 6) it may well support the subjective conviction of equality. Equality of access and universality of education will serve to bolster this feeling. Bjarnason (1974) in her thesis distinguishes between formal equality (before the law), equality of opportunity (as an individualizable characteristic) and "real" or "structural" equality. The pull of the

system may be expected to induce subjective interpretations of an open opportunity structure as equalitarian and blind the subject to the counterequalitarian implications of that very structure. An "open" opportunity structure, by the very pull it creates, leads to redistribution of statuses, i.e. to the distribution of status inequality. This is consonant with a functionalist theory of stratification as proposed by Parsons (1940, 1953) and Davis and Moore (1945). The educational system, in particular, is instrumental in this process. The equalitarian interpretation of this mechanism may be enhanced moreover both by traditional and ideologically persistent interpretations of the historically "real" equality of independent farmers and by the opening up of avenues to education, commonly valued within that ideology, however few had access to its institutionalized form. Yet, once more close inspection of table 6 reveals that the opportunity structure is not open in the sense of a real equality of opportunity throughout the system. Grossly speaking (and with some exceptions), the proportion of upwards mobile individuals in the different occupational levels decreases as one proceeds from the bottom upwards through the system and, conversely, the number of downward mobile individuals increases, although only slightly, as one proceeds from the top downwards[4].

In order to assess the dynamics of status distribution and status acquisition we revert once more to table 6. The table must be read linewise and columnwise. Reading linewise a representation of the *composition* of each occupational group by members originating from the different social strata emerges. The figures in the diagonal cells represent status inheritors — intergenerationally status-stable individuals. Save for blue collar workers these figures are amazingly low. Even in the power élite only some 20 per cent have "inherited" their position. The clerical group represents almost a social innovation. Off the diagonal to the left each cell of a line numbers the upwards mobile individuals composing an occupational group, cells off the diagonal to the right contain the downwards mobile. Relative social homogeneity, as evidenced by the table, is an attribute mainly of the lowest class; even the skilled workers' group shows some sign of social heterogeneity, some 15 per cent of those composing it originating in the "upper" occupational strata (4 through 6). The higher the occupational level, the more balanced its social composition — with a decidedly preponderant working class share in each group, by far exceeding the proportion of status keepers within each group with the exception of the highest. About one half of each class (except class 6 where the number drops to roughly one fifth) is composed of individuals from blue collar origin.

Interestingly the upper classes thus provide real examples of an open opportunity structure. Again it is unterstandable that subjective perceptions of equality of opportunity are enhanced by the structure and composition of these groups. The academic and administrative power élite draws its members rather equally from all social strata. Only clerical workers are underrepresented. The relatively equal representation of all social strata in the top social group is probably a rather unique feature when comparing Icelandic society to other industrial societies[5]. It shows that modalities of selection (e.g. through schooling) have not yet established the system of self-recruitment of the power élite that has been the characteristic object of study of educational sociology and one of the main objects or arguments for school reform in western societies since World War II.

Incidentally, the data suggest that there *is* real and massive upward mobility (between classes) in the system, and that, contrary to recent findings in mobility research in some industrial societies it is not mainly confined to within class mobility between occupations. While these recent analyses have argued that social mobility in some industrial societies may be a methodological artifact, and that relative status in the class hierarchy has hardly changed between generations for several generations (Kleining, 1971; Goyder and Curtis, 1975), this clearly is *not* the case in Iceland. Both studies find sizeable congruence in occupational status between generations, the American study over a three generation span, the German study for even a longer period. In Iceland, incongruence of occupational status between generations is a salient feature of the system. In other words: equality of opportunity can be constructed on the basis of the experience of real probabilities of movement "up" through the hierarchy of occupationally based social classes. We shall return to mobility between classes in the next section.

The distributional properties of the entrepreneurial group differ in one respect from those of the academic and administrative élite: The relative share of men of blue collar origin in group 5 is double that of group 6, whereas sons of skilled workers are considerably less numerous relatively than in the group above it. We trace this to the educational component of occupational status of both skilled workers and the élite.

4 The only downwards mobility ratio exceeding 10 per cent is that between classes 2 and 1. See tables 6a and 6b, and figure 1.

5 That Iceland is an industrialized country is demonstrated by the composition of its labor force according to economic activity and the development thereof. The size of the secondary and tertiary sectors are typical of highly developed industrial societies. See table 9 above.

4.3 Differential Mobility

This leads us to consider differential mobility among the social strata in greater detail. Table 6 shows the different mobility components both with regard to actual class affiliation of individuals and with regard to class of origin. The distribution of mobile individuals of given social extraction over the different social strata can be studied by looking at the *columns* of the table. Upward mobile individuals of a given class of origin are found in the cells below the diagonal. The composition of each social class by individuals of different social class extraction can be studied by inspection of the *rows* of the table. The inspection reveals not only high mobility but also considerable amount of differential, and of differentially far-reaching mobility to obtain between occupational classes. The differential flows between classes are graphically represented in figure 1. The distribution of class origins for individual strata (rows) in table 6 show that every cell has something like a definite transition probability both as an origin of mobility and as a receptacle of mobile individuals originating elsewhere in the social matrix. A considerable proportion of mobile individuals do not originate in the social stratum directly adjacent to their present location, but step over two or more strata, as is well demonstrated by the fastest mobile group with the most sizeable representation in every social stratum above its origin: the blue collar workers. Out of a total of 514 upwards mobile individuals, this group provides 378, or 73 per cent. And although half of these move to the adjacent class of skilled workers (186 or 50 per cent of the mobile blue collar workers), a sizeable group moves on to other strata: 62 (16 per cent) to class 3, 65 (17 per cent) to class 4, with its strongly constitutive educational component, 47 (12.5 per cent) move into the entrepreneurial class and the remaining 18 (just under 5 per cent) into the academic-professional élite. Similar trends hold for other social classes of origin, although less markedly. The role of education in the process is indicated by the relatively high number of individuals originating in the blue collar and skilled worker classes found in class 4 (65 and 31 respectively) and contributing sizeably to that class as the row percentages demonstrate.

The picture of a social structure dominated as it were by mobility invites speculations about the socializatory origins and effects of (differential rates of) mobility. We shall turn to that issue in a while. It is also tempting to speculate about the causes of differential mobility of individuals originating within the same social group, as well as in different groups. A model partitioning the variance due to functional differentiation of the social system — the dynamics of the opportunity structure — and the variance due to the family and personality characteristics of the differently mobile individuals might ultimately lead to a better prediction of systemic and individually generated mobility differentials and their correlates than predictions derived from the present aggregate representation can achieve. However, it is not our aim at this stage of the research to investigate the contribution of different factors to the explanation of mobility. Rather, we purport to describe, in the simplest terms possible and without loss of information, the actual numerical relations between groups of real people. This will help us to generate hypotheses both for macro-social and for socialization research.

Yet the computation of "coefficients" or "rates" of mobility for the different occupational classes or groups will help to clarify the picture. We proceed in the following manner:

1. Total upward mobility amounts to 1,043 "moves", a "move" being defined as the transfer from one class or status configuration to the next. Out of a sample totalling 1,045 this means about one "move" per individual on the average between generations. This unit may serve as a measure for the overall upward mobility in the society. If, however, mobility is considered differentially it must relate to the different occupational groups. This leads to the derivation of the following mobility coefficients (i.e. the average upward mobility as measured in "moves" for each class:

class 1 = 0 class 4 = 1.71
class 2 = 0.57 class 5 = 2.40
class 3 = 1.34 class 6 = 2.47

Alternatively upward mobility can be related to those individuals only who have actually been upward mobile. The average *individual* upward mobility for each class is as follows:

class 1 = 0 class 4 = 2.53
class 2 = 1.00 class 5 = 3.12
class 3 = 1.78 class 6 = 3.12

Both series of coefficients show a monotonous increase in mobility from one class to the next, although the numerical distances between groups are unequal. And although the generation of "means" from ordinally scaled data forbids interpreting such "distances" as representations of intervals between group positions, they still indicate that the different social classes contain differing and characteristic proportions of individuals who have taken differentially far-reaching strides from their class of origin to their

present social position. The former set would serve in analyses referring to group characteristics, whereas the second set should be used only in analyses of individuals within groups.

2. In the same manner we may compute downward mobility: In the total sample (1,045) 325 "moves" downwards have been taken. This yields an average of 0.31 "moves" per individual. The average differential mobility per group is as follows:

class 1 : 0.37 class 4 : 0.26
class 2 : 0.44 class 5 : 0.05
class 3 : 0.32 class 6 : 0.00

If we compute the average downward mobility for those individuals only who have actually been downward mobile, separately for each class, the following figures are obtained:

class 1 : 1.90 class 4 : 1.48
class 2 : 2.42 class 5 : 1.00
class 3 : 1.80 class 6 : 0.00

Interestingly, downward mobility is not represented by a montonous increase in the numerical values. Occupational class 2 — the skilled workers — contains the highest proportion, by far, of downwards mobile individuals. It appears to fulfill a special function as a receptacle for downwards mobile individuals.

As a group class 2 combines minimal educational requirements with a well-defined professional identity. The co-occurence of these two elements may function as a prerequisite for possible success in later attempts at securing higher status again. On the other hand, and anticipating results of the analysis of mental health data to be discussed in section 9 below, the intriguingly high number of children with symptoms of bad mental health found in class 2 may have something to do with its "receptacle function" for downwards mobile individuals.

3. Comparison of the size of upward mobile and downward mobile sets by classes showed that the upwards mobile by far exceed the number of downwards mobile individuals. From the proportion of the sizes of these sets the following coefficients can be computed. They show *how many times more* upwards mobile than downwards mobile individuals are contained in each class:

in class 2 3.11 times more upwards than downwards mobile individuals
in class 3 4.15 times more upwards than downwards mobile individuals
in class 4 3.87 times more upwards than downwards mobile individuals
in class 5 15.65 times more upwards than downwards mobile individuals

Table 6 showed that 49.1 per cent (53.2 per cent) of the total sample are upward mobile, whereas 15.7 per cent (16.3 per cent) are downward mobile. This leaves 35.1 per cent (30.5 per cent) of the sample in which no change of position in the stratification system has occurred between two generations. The stable set, however, is very unevenly distributed over the social classes as the diagonal of table 4 shows, both in absolute numbers and in percentages.

Although the lowest class yields both absolutely and relatively the largest proportion of those individuals moving into higher strata (378 = 73 per cent out of a total of 514 upward mobile individuals) it still represents the major stable set within the society.

The low percentages of intergenerationally stable individuals in classes 3, 4 and 5 reflect the recent emergence within Icelandic society of distributive, technical and industrial functions, propelled through change in the economic structure (industrialization and urbanization in the last decades). On the other hand it may be reasonable to suspect mobile individuals to constitute a major force working for the perpetuation and diffusion of change.

Table 12: Intergenerationally Non-mobile Individuals by Occupational Class (Self-recruitment Ratios)

Occupational class	1	2	3	4	5	6
N	220	81	7	23	19	17
In % of each class	80.5	24.8	6.7	14.8	18.4	20.7

4.4 Digression on Mobility and Socialization

The question (alluded to earlier) of psychological "correlates" of mobility both in the mobile individuals themselves and, through socialization, in their children appears highly relevant when we try to understand the relationship between social structure and personality. Some cognitive and personality correlates of social position, and as we tend to think: mobility, will be depicted below . Here we wish to mention some theoretically unsolved issues.

Socialization research, by and large, has been "static" insofar as it has studied variations in child rearing style and its effects on a more or less synchronous level. Until lately the historical dimension has been largely excluded from consideration. A noteworthly exception is Bronfenbrenner's (1958) reanalysis of data from various child rearing studies in view of historical development in modalities of child rearing. Recently the time dimension has begun to arouse major interest in socialization research. This interest is documented either by a return to history (Ariès, 1970; DeMause, 1975; see the review by Giehler and Lüscher, 1975) or by way of refocusing developmental research to the entire life span (Goulet and Baltes, 1970; Baltes and Schaie, 1973; Datan and Ginsberg, 1975), an enterprise calling for methodologies that take care of cohort effects.

But although the separation of cohort effects from effects of structural, i.e. historical change intervening between generations by implication calls for attention to the latter type of change, we do not know of empirical studies that include historical-structural dynamics in the set of explanatory variables investigated in a multi-level approach. This is all the more remarkable since socialization research, by the very constitution of its object, focuses on a "temporal structure". Nevertheless it has, practically, proceeded on the somewhat fictitious assumption of a continuity of synchronous variations in the strength of certain characteristics of the family interaction system — for example variations in warmth or control according to social class position of family. In other words: Research has mostly behaved as if these were properties or attributes of individuals rearing children in families independently of the historical context of systemic action problems that individuals have to cope with in social interaction. Such problems might provide concepts like "warmth" or "control" with systematically different meaning from one study to the next. Possibly it is inconsistencies of this type in supposedly durable "traits" that have given rise to the interest in situational variation (Mischel, 1973; Hayden and Mischel, 1976), permitting to predict "some of the people some of the time" (Bem and Allen, 1974) — and no more. But this sceptical version of empiricism appears as a relativistic adjustment to the prevailing prediction paradigms (see Bowers, 1973) rather than as an attempt to construct more durable ones.

The hope for durable paradigms, in our opinion, resides in notions of structure-in-change or equilibration, linking social evolution and ontogeny, social structure and personality in mutually interdependent development within a common theoretical framework. But the available structural theory of development, Piaget's genetic epistemology, however evolutionary its dialectical conception of ontogenetic equilibration of emergent cognitive structures, has hardly done more than to acknowledge the interrelationship of individual development and the evolution of macro-level systems (for example in terms of culture and cognition). Thus, as against the cognitive universals embedded in the competence system, the cultural, social and interindividual variations in performance have not received much attention in the various structuralist versions of competence theories. Research has yet to decode the socially generated performance rules which form the particular links between the social systems, subcultures and life-worlds determining the structure of experience, action and interaction, and the cognitive universals triggered into practice by them (or, conversely, impeded by them to enter individual performance). *Décalages* are described but remain unexplained.

In contradistinction, within the psychoanalytic tradition the structure of the family and the interaction of its members as socializing agents can be conceptualized as a system of intergenerationally persistent action and interaction problems, recurring between generations. The "return of the repressed" takes place not only within individuals but from one generation to the next. But also the personality structures moulded within one generation — as a function of dominant action problems linking the psychic to the social — tend to be transferred to the next generation by means of the reconstruction of the rules of interaction between significant others, thereby conferring on the past a considerable power over present socialization processes (DeMause, 1975). Thus the ontogenetic universals of character development and identity formation that constitute the core of psychoanalytic socialization theory remain sensitive to the structure of the socio-historic matrix. The social base of ego development, of character and of modal neurotic types, the psycho-historic interaction of modal personality and the socio-historic structure of action problems provide one of the main foci of psychoanalytic theorizing (Dahmer, 1973; Erikson, 1959,

1963; Fromm, 1956; Fromm and Maccoby, 1970; Hendin, 1964; Horkheimer, 1936; Marcuse, 1955, 1964; Mitscherlich, 1963; Richter, 1970)[6].

Yet, just as historical research into the conditions of the family and the child has hardly achieved relevance for empirical multi-level socialization research, the psychoanalytic study of the child, besides abstaining from field research, has hardly taken social structural variables into account (see however Fromm and Maccoby, 1970). If research is to respond to the theoretical challenge of its objects, it has to respond to the fact that the psychological pattern of personality is structured under the impact of interacting significant others. That they socialize the child while solving their action problems (such as child rearing) in the structural context of their life-world. That their life-worlds are undergoing structural changes as worlds of work and subcultures change. That emergent cognitive structures of competent actors are universals embedded in and influenced by structures of an emergent ego, developing under the dominating impact of interacting significant others. And that it is this circular structure in which the processes and products of socializatory interaction are located that grants meaning to the elements that, taken as independent wholes, have been insulated as objects of research. The argument leads to the consequence that the objects of research should be theoretically constituted in accordance with the "historic" structure d'ensemble instead of its elements. We are, of course, aware of the difficulties that block the way of such programs.

Returning to empirical practice, then, the endeavor to cope with such programmatic claims raises the question of how to conceptualize change so as to be able to include a historic dimension in socialization research. We suggest that intergenerational mobility over two or three generations may prove a helpful analytic and structural indicator. Differential rates of intergenerational mobility in different social groups may be considered as latent structures affecting the stability or change of the child rearing dialog, building up, maintaining, corroding or reconstituting the everyday theories of action involved in the objectively constituted and subjective goals and instrumentation of the socialization process. Socialization theory has, consciously or not, started from the assumption of stable states represented by the system of family interaction. And we have reasons to expect that *some* measure of stability experienced in the socialization process may be essential to the development of stable identities. The more recent socialization literature conveys the distinct insight that what might be termed circumscript identities (cognitively and affectively coping, communicatively competent ego-autonomous individuals capable of reciprocity, role distance and tolerance of ambiguity) are premised on the availability of some relatively stable and yet flexible rules as persistent characteristics of the child rearing process as it is nested in the interactional system of the family (see for example Ainsworth, Bell and Stayton, 1974; Baumrind, 1971, 1975; Erikson, 1959, 1963, 1968; Keller, 1976; Krappmann, 1971; Spitz, 1964, 1965, 1970; Weinstein, 1969). Persistent rules (and not rigid regulations!) point to the existence of an interpretive pattern — a "tradition" of meaningful adult-child interaction, purporting to socialize the child. The existence of such "child rearing traditions" appears as a function of two interrelated conditions: *first*, a minimum of intergenerational stability or better: survival of structure and function for the rule; *second*, a rate of change that permits a flexible, reflexive attitude to tradition. Both conditions can be violated in two directions: Intergenerational continuity may be so total that structure and function of child-rearing rules become rigidly fixed, and thus turned against the child's need system. Or change may transgress the lower bound of intergenerational stability and dissolve the meaning of child-rearing rules altogether. Then the need system of the child is turned into the regulative norm, and the development of personality structure is empeded, in psychoanalytic terms, by oral infantilism and super-ego deficits. If the rate of change exceeds the upper limit, tradition is suddenly or violently disrupted, without leaving scope for its reflexive appropriation or rejection. Dropping below a lower limit, a stultifying rigidity of the structure eliminates the scope for reflexion and its potential for equilibration through the solution of cognitive conflict. — Both conditions combined provide the socially required temporal latitude for common sense theories and practices of child-rearing, reaching from latent rules and accepted roles for children to intersubjectively meaningful "talk about education" and even "scientific" concern for socialization. It is possible that violent structural change, coupled with overly-intensive mobilization processes do not modernize the individuals affected (Inkeles and Smith, 1976) but paralyze their ability to socialize autonomous identities. Anomie in adults would then be matched by pseudo-independence, ego-deficits and cognitive blocks in children as limiting cases of the effects of insufficient socializatory interaction.

6 It has to be conceded that psychoanalysis as a social science is still quite separated from mainstream thinking in psychoanalysis, and that, within the social science paradigm of psychoanalysis the critical version is a minority position, although it can trace its origin back to Freud himself.

It would have been valuable to compare village- and city-born upwards mobile individuals in our sample with this in mind. For technical reasons, we cannot pursue the matter further at this point[7]. Suffice it to summarize these speculations by the statement that hypermobile societies may throw a new light on the old question of the relation between individual character or personality and social structure (Horkheimer, 1936; Parsons, 1964). They may clarify the role of intergenerational stability and/or mobility for the maintenance, abrogation or modification of that relationship. We may conceive of the socializatory interaction within family (which generates the structural properties of personality in the offspring) to be nested in a cell of a positional network with action problems and definitions of relations of its own, connected to and yet different from those valid in other cells of the network within the culture. Sudden change from one cell to another — other things being equal — is bound to affect the stability or persistence of the validity of interpretive rules for action problems (among which the action problems defined for the family by its socializatory function). And the greater the gap between whence and where, the greater the discrepancy between the interpretation rules called for by the action needs and the interpretation brought into the field or even left behind for reasons of their inapplicability may be hypothesized to grow. In extreme cases the socializatory dialog may become muted or "derails" (Spitz, 1964) for reasons to be sought in the corollaries of structural change. The effects on the cognitive and affective characteristics of individuals emerging from the silence may be massive. And so may the effects on the social interactive units they become involved in. Of the former effects we suspect signs to be discernible in the data analyzed below. On the latter we can only speculate.

Iceland's is a particular case. Certainly, researching into these questions is enhanced by the parameters of the culture as described earlier in the paper. Demographic reasons, an inner homogeneity not affected by migration, universal literacy and good social book-keeping technically present prerequisites for research into the questions we raise, which again can only be answered under the structurally extreme conditions we just have described. In some respects the social system has properties of a developing country: a rapidly growing population with growing proportions in the younger age-groups, extreme detraditionalization, desagrarization, urbanization, regional and social mobility. In other respects, it firmly represents the features of old European societies: literacy, a rationally organized administrative, educational and political system, legitimatory traditions, rational world views and a technologically advanced economy permitting a very high living standard. Our questions could thus be studied without leaving the cultural context from which they are derived. But they may serve to cast light on some of the difficult questions generated by "development" in other parts of the world[8].

7 An analysis of our sample with regard to different mobility rates is in preparation.

8 The hypotheses formulated here cannot, of course, be adequately tested in the present exploratory study, but they are being taken up and subjected to empirical scrutiny in another study by the authors, now under way, as pointed out in the foreword.

4.5 Education

It has become apparent in the discussion of mobility that education has become (or is becoming) a crucial variable in the stratification dynamics. Since education or training requirements are part of the definition of occupational class as reported earlier (p. 32) the purpose of this chapter is to elucidate, on a descriptive level, the relationship between the educational variable and occupational stratification in Icelandic society.

The data we draw on are interviewees' reports on their educational attainment. The data suggested a classification of individual exposure to education into four educational levels:

1. graduation from elementary school (7 years of schooling)
2. graduation from the lower secondary or lower technical grades (9 years of schooling)
3. graduation from technical or higher secondary (grammar) school (12 or 13 years of schooling)
4. academic training

Table 13 and figure 3 show the frequency distribution of educational levels for both parents.

The frequencies show the growing disparity in educational level for the two sexes as level of educational attainment increases. In the parental generation of the mid sixties, accordingly, educational opportunity had been far from equally distributed. Advanced levels of education still seem to be a male privilege in that generation. We shall return to sex differences in educational opportunity below.

How does educational attainment — and the educational privilege just referred to — relate to occupational class of the fathers in our sample? Figure 4 shows these relationships.

Only in families of blue collar workers is there a match between fathers' and mothers' educational attainment, low educational level and low occupational class largely coinciding. What discrepancy there is appears due to a slight relative overeducation of mothers as compared with the male household heads.

Although there is a definite overall covariation between class and level of educational attainment — to be expected from the educational component of class definition — the discrepancies between educational level of males and females increases with the level of occupational class. However, there is an obvious non-monotony in this increase. In the occupational classes 2, 4 and 6, where the training and education component of occupation is most salient (and increasingly so) the discrepancy between the sexes is more marked; among the clerical group, with no standard educational requirements for jobs, the relatively better education of males perhaps shows best the sexbound trends in the quest for education: more women then men have received elementary education only; lower secondary education is equally distributed; men exceed women markedly in grammar school education. The distribution for the entrepreneurial group is an almost exact replica of that for the clerical group, representing a somewhat higher secondary (grammar) school enrolment of the males, which one might assume has led to different social consequences in the two groups. In other words: education is not yet a determinant of status, the same exposure to education does not imply identical status acquisition or job opportunity. Additional determinants are needed to account for occupational status and/or "success".

Interestingly, the shape of the curve for the women is very similar in families of classes 1, 2, 3 and 5. Only in the "educated groups" (4 and 6) is the shape of the curve affected by the status of the men. This sign of selective intermarriage patterns accounting for a higher average educational level of the women in these groups does not imply a decrease in the discrepancy in educational status between the sexes. If anything, the discrepancy grows. The overall tendency for educational and occupational status to covary and to increase with the ordinal position of class does not prevent the educational underprivilege of women to show more sharply at the upper levels. Thus the graph, in a way, shows a universal feature of handicap: while the overall weight of handicap cumulates in the lower and lowest strata, differential handicap is

Table 13: Educational Attainment of Fathers and Mothers (in %)

Educational level	elementary	lower secondary	higher secondary	academic	no information
Father	5.9	33.3	32.1	19.8	8.9
Mother	5.2	52.0	28.1	13.8	0.9

Figure 3: Educational Attainment Levels of Fathers and Mothers

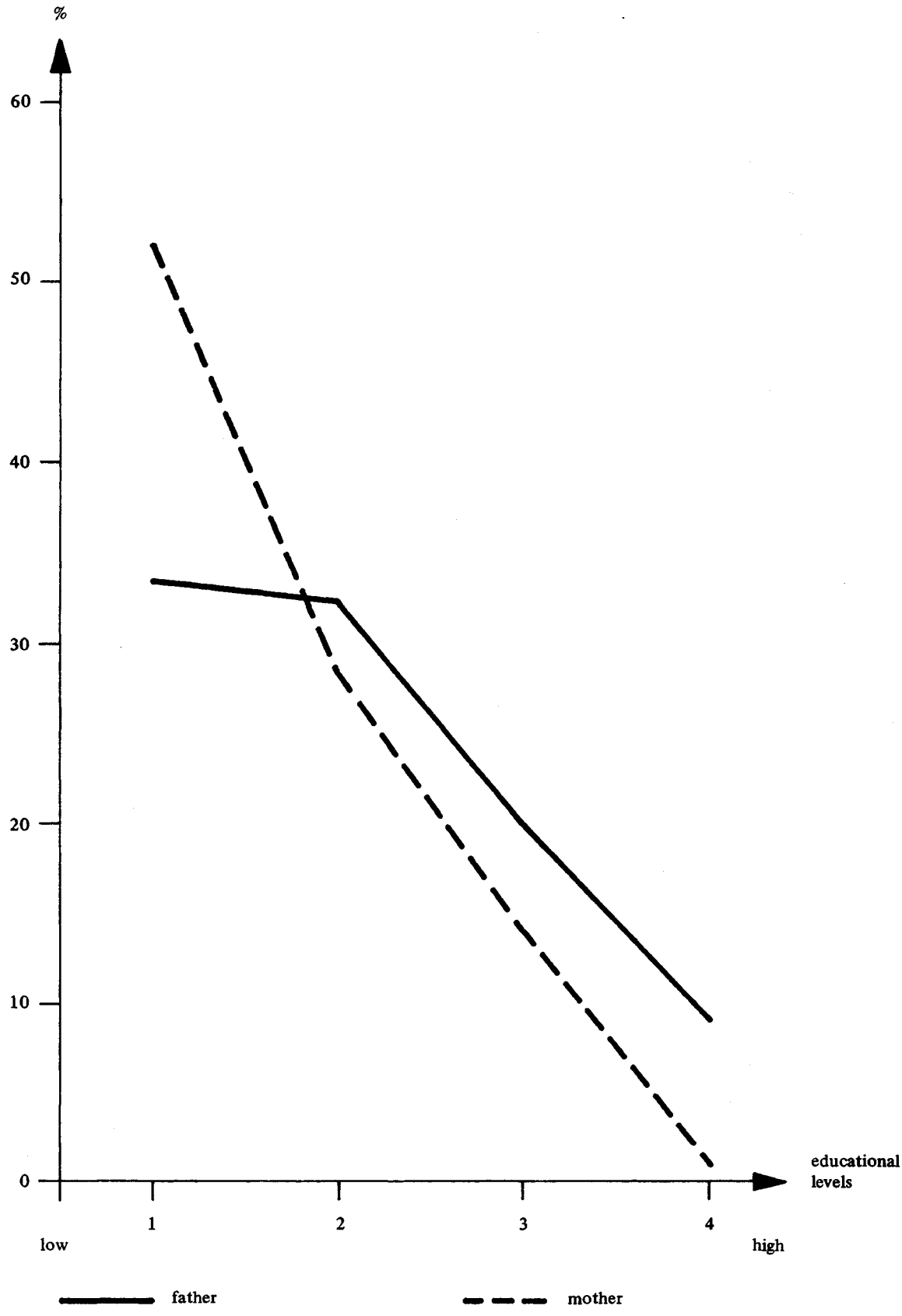


Figure 4: Educational Attainment of Fathers and Mothers by Occupational Class of Father (in %)

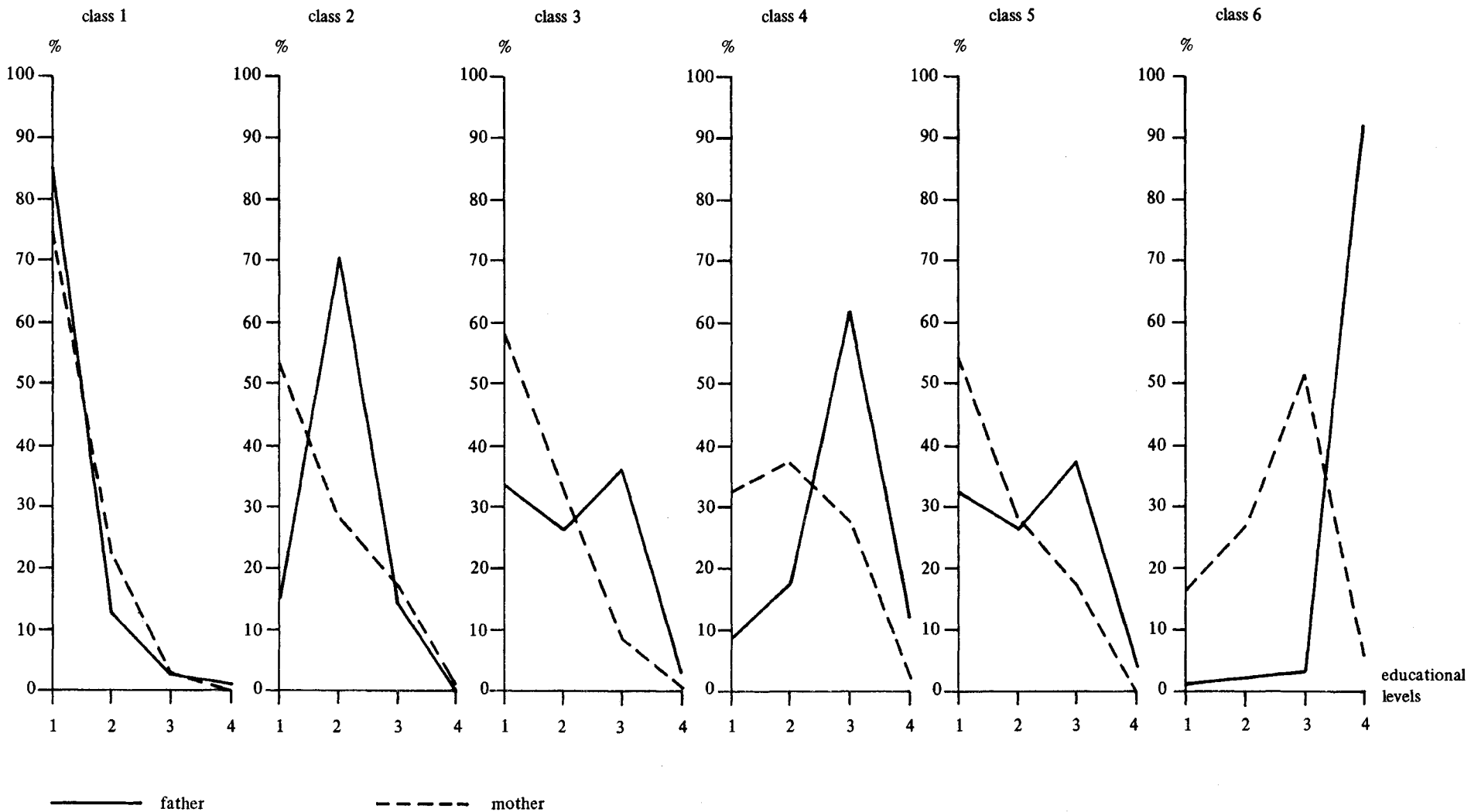


Table 14: Occupation and Education of Fathers

Occupational class	N – %	Educational level 1	2	3	4	T	"mean educational level"
1	N	230	34	6	1	271	1.2
	%	84.9	12.5	2.2	0.4	100	.
2	N	49	232	47	0	328	2.0
	%	14.9	70.7	14.3	0	100	.
3	N	34	27	37	3	101	2.1
	%	33.7	26.7	36.6	3.0	100	.
4	N	13	26	93	18	150	2.8
	%	8.7	17.3	62.0	12.0	100	.
5	N	32	26	37	4	99	2.1
	%	32.3	26.3	37.4	4.0	100	.
6	N	1	2	3	74	80	3.9
	%	1.3	2.5	3.8	92.5	100	.
T	N	359	347	223	100	1.029	2.1
	%	34.9	33.7	21.7	9.7	100	.

chi^2 = 1325.84 C = 0.74
df = 15 max. value of C = 0.866
p < 0.001

signalled more clearly the farther a group has advanced up some developmental or social scale. The psychological significance, as shown widely by research in fields as different as racial discrimination and economic underprivilege, is quite different in the different parts of the scale: tending to apathy, passivity and resignation on the lower, sensitization and rebellion in the higher levels.

It is interesting to note the differential discrepancies between educational levels of the sexes in the three groups where education most often is a formal requirement of professional identity. In the skilled worker group, vocational education (equalling lower secondary schooling in status, although neither in content nor in time of exposure for the generation under study) is an entrance requirement to the profession, which differentiates the males from unskilled labor, but not their wives. In class 4, largely composed of technical and educational professionals, the males have on the average advanced to the next qualification level and an intermarriage effect emerges. In the professional and administrative élite, average educational status has advanced to the uppermost level, the intermarriage effect becoming more marked. Conversely, however, attention should be drawn to the fact that intermarriage habits appear to leave a great margin of socio-educational indeterminacy, i.e. for emotional choice independent of class and/or education. The overall pattern is one of growing consolidation of the function of education in the social stratification process, while this function lags behind for women whose educational underprivilege as compared to males is quite salient.

A closer look at the educational composition of the occupational status groups will further clarify these relationships.

The chi^2 analysis shows that the relationship between occupation and education is highly significant. The intersection cells of occupational class and educational level for classes 1, 2, 4 and 6 show to what extent these are "defined" by an educational component[9]. These cells represent the modal configurations of occupational class affiliation and educational attainment level. Classes 3 and 5 present noteworthy exceptions: Here all educational levels (except the highest) are rather equally represented. Perhaps this

9 The data were tabulated and computed long after the scale construction. Thus the distribution can be considered at least a partial confirmation of the hypothetical constructs on which the occupational scale is based.

Table 15: Educational Attainments of Mothers by Occupational Class of Father

Occupational class of father	N – %	Educational level of mother 1	2	3	4	T	"mean educational level"
1	N	205	61	8	0	274	1.3
	%	74.8	22.3	2.9	0	100	.
2	N	191	110	27	1	329	1.5
	%	58.1	33.4	8.2	0.3	100	.
3	N	56	30	18	1	105	1.7
	%	53.3	28.6	17.1	1.0	100	.
4	N	49	57	42	5	153	2.0
	%	32.0	37.2	27.4	3.3	100	.
5	N	54	28	17	0	99	1.6
	%	54.5	28.3	17.2	0	100	.
6	N	12	20	38	4	74	2.5
	%	16.2	27.0	51.4	5.4	100	.
T	N	567	306	150	11	1.034	1.6
	%	54.8	29.6	14.5	1.1	100	.

chi^2 = 213.18 C = 0.41
df = 15 max. value of C = 0.866
p < 0.01

may be taken as a sign both of the heterogeneity of cultural standards in these groups and of the lack of relationship between qualification demands and work roles in these groups. As mentioned before, in the skilled worker group education is directly related to work, whereas the relation between work and education is attenuated as one proceeds up through the system. Or rather, the educational function in work is increasingly abstract and symbolic.

The expansion in secondary education intervening in the last decade or two would presumably lead to a still closer correlation between occupational and educational status affecting, first and foremost, occupational group 4. The development moreover is double-sided: expansion of the educational system is matched by the growing stringency and selectiveness of educational requirements of the work system. This again leads to an increasing relevance of educational certificates in the planning of biographies. The effects on the socialization process and the (differential) impact of formal education as an "action problem" of families at different positions in the socio-occupational network is quite easy to anticipate.

We have already pointed out that the relationship between class and education is largely random in groups 3 and 5. The mean educational level of these strata are identical (2.1) and hardly different from group 2 and the mean of all groups. Thus it cannot be education which distinguishes these groups. Upwards mobility to the entrepreneurial group is not enhanced, it seems, by education or hampered by lack of it. Nevertheless, overall transfer probabilities between strata appear largely linked to education or, in other words: education has become the mean agency of upward mobility. Thus, the mean educational level of group 6 is almost double that of the entrepreneurial group[10]. We don't know at present whether educational failure is the main vehicle of downward mobility, but there are reasons to expect this to be true.

Tables 14 and 15 permits us to compare the educational levels of the two sexes as nested within occupational groups.

10 If we look at the latter in the ordinal sequence of mean educational attainment levels of the status groups we encounter a phenomenon to remain typical of this group: an interruption in the monotonous increase in any coefficient or indicator linked to occupational class.

Table 16: Community Origin and Education of Fathers

Educational level	N – %	Community origin rural	village	city	total
1	N	153	69	141	363
	%	42.1	19.0	38.8	100
2	N	95	85	172	352
	%	27.0	24.1	48.9	100
3	N	52	67	98	217
	%	24.0	30.9	45.2	100
4	N	15	27	56	98
	%	15.3	27.6	57.1	100
T	N	315	248	467	1.030
	%	30.6	24.1	45.3	100
"Mean educational level"		1.8	2.2	2.1	2.1

$chi^2 = 43.83$ C = 0.20
df = 6 max. value of C = 0.816
p < 0.001

The mean educational attainment levels, as expected, turn out to be consistently lower for the women (one half level on the average), except in class 1, where males show a slight tendency to marry better educated wives. Or rather: where fathers show a tendency to grant daughters a better education than sons, and thus account for differences in the structure of the labor market for men and women. The educational handicap of women can be quantitatively assessed by comparing the mean educational attainment level of

Table 17: Community Origin and Education of Mothers

Educational level	N – %	Community origin rural	village	city	total
1	N	213	130	225	568
	%	37.5	22.9	39.6	100
2	N	69	81	158	308
	%	22.4	26.3	51.3	100
3	N	24	45	83	152
	%	15.8	29.6	54.6	100
4	N	0	0	10	10
	%	0	0	100.0	100
T	N	306	256	476	1.038
	%	29.5	24.7	45.9	100
"Mean educational level"		1.4	1.7	1.7	1.6

$chi^2 = 51.00$ C = 0.22
df = 6 max. value of C = 0.816
p < 0.001

fathers (2.1) to the mean educational level of mothers (1.6). Educational discrepancy between the sexes increases with increasing occupational status, reaching its maximum in the top group. Again, the increase (as well as its disruption in class 5) closely parallels that for the male population.

Let us next look at the effects of community origin on educational status. We have previously identified the function of horizontal mobility in the total social (upwards) mobility process and conversely the mobility "handicap" associated with (particularly rural) origin. Tables 16 and 17 show how differences in the community origin affect the level of educational attainment achieved by men and women in the parental generation of the mid-sixties.

The tables demonstrate the expected urbanization effects on educational level of both sexes. However, whereas in the men no difference appears between the village-born and the city-born, in women city birth makes a slight difference. The few women with higher education are all from Reykjavik. Rural origin appears to be the major deterrent from education. As before, regional inequality of opportunity is in evidence. A significant relationship obtains between regional origin and educational level — city origin leading to or allowing of higher educational status, other things being equal. Also, the relation holds the other way round. Educational opportunity in its crudest form: the sheer existence of schools is, we know from other sources, an important subjective motive for horizontal mobility, particularly from the countryside to the city.

Finally the relationship between educational status of the parents and the occupational class of *their* parents is of interest. This approximates the question, more conventional in sociology, about the "heritability" of education. Only, in our case, the grandparents' education would not provide a meaningful baseline. We therefore investigate more directly the social-structural relationship obtaining between status affiliation in the grandparental generation and the educational level of their children (the parents in our sample).

Table 18: Education of Father and Occupational Class of Paternal Grandfather

	Occupational class of paternal grandfather						
Educational level of father	1	2	3	4	5	6	T
1	271	40	8	14	14	4	351
2	194	81	17	17	28	5	342
3	87	41	18	33	22	13	214
4	24	16	5	16	17	20	98
T	576	178	48	80	81	42	1.005
	in % of all members of each educational level						
1	77.2	11.4	2.3	4.0	4.0	1.1	100
2	56.7	23.7	5.0	5.0	8.2	1.5	100
3	40.7	19.2	8.4	15.4	10.3	6.1	100
4	24.5	16.3	5.1	16.3	17.3	20.4	100
T	57.3	17.7	4.8	8.0	8.1	4.2	100
	in % of all members of each occupational class						
1	47.0	22.5	16.7	17.5	17.3	9.5	34.9
2	33.7	45.5	35.4	21.3	34.6	11.9	34.0
3	15.1	23.0	37.5	41.3	27.2	31.0	21.3
4	4.2	9.0	10.4	20.0	21.0	47.6	9.8
T	100	100	100	100	100	100	100

$chi^2 = 209.46$ C = 0.41
df = 15 max. value of C = 0.866
$p < 0.001$

Table 19: Education of Mother and Occupational Class of Maternal Grandfather

Educational level of mother	Occupational class of maternal grandfather 1	2	3	4	5	6	T
1	415	77	18	18	28	4	560
2	166	51	15	34	35	4	305
3 + 4	47	32	9	25	27	19	159
T	628	160	42	77	90	27	1.024
	in % of all members of each educational level						
1	74.1	13.8	3.2	3.2	5.0	0.7	100
2	54.4	16.7	4.9	11.1	11.5	1.3	100
3 + 4	29.6	20.1	5.7	15.7	17.0	11.9	100
T	61.3	15.6	4.1	7.5	8.8	2.6	100
	in % of all members of each occupational class						
1	66.1	48.1	42.9	23.4	31.1	14.8	54.7
2	26.4	31.9	35.7	44.2	38.9	14.8	29.8
3 + 4	7.5	20.0	21.4	32.5	30.0	70.4	15.5
T	100	100	100	100	100	100	100

chi^2 = 212.04 C = 0.41
df = 10 max. value of C = 0.866
p < 0.001

The chi^2 analysis shows that both sets of relationships are highly significant statistically. The percentages in the middle block of the table relate educational attainment to class origin of fathers ("77.2 per cent of fathers with elementary education only originate in class 1"); the percentages in the lower block of the table show the proportion of grandfathers in class 1 that have promoted their sons' education to various educational levels ("47 per cent of class one grandfathers have sons with elementary education only, 33.7 per cent provided lower secondary or vocational education, 15.1 per cent pre-university and 4.2 per cent university training to their sons").

The intergenerational mobility effects studied earlier very clearly are mirrored in the relationship between class origin and education. Lower class grandfathers have sons on all educational levels, although the lowest two are by far most frequent. Educational aspiration of grandfathers for their sons generally rises with their occupational status. An exception from the trend to a certain extent again is provided by the entrepreneurial group, which, on the face of it, ressembles the clerical group, with higher university aspirations, though. The entrepreneurial group, perhaps perpetuating family traditions, seem to prefer the lower secondary and vocational schools — the basic and work-related education of skilled workers, while grandfathers of that group foster grammar school aspirations for their sons to a greater degree than clerical grandfathers do.

Education in the parental generation considered overall is clearly classbound, and the statistical analysis indicates the extent to which this statement is true. Less than 20 per cent of lowest class sons receive a grammar school or university education, while almost 80 per cent of class 6 sons and over 60 per cent of class 4 sons attend these schools. Both entrepreneurial and clerical class sons' enrolment in this type of education drops to barely 50 per cent, and the skilled workers' children's to below one third. Thus, for all classes except the unskilled and, to some extent, the skilled workers aspiration, as demonstrated by enrolment in the more prestigious sectors of education, is relatively high. Generally speaking, advances in the educational system appear to be a main device for conservation and change of status. This is almost a sociological triviality: the mechanism is so well known (see for example Halsey, Floud and Anderson, 1961). What does make a difference, when comparing the high enrolment rates in the selective upper level

Table 20: Fathers at Upper Levels of Educational Attainment by Occupation of Paternal Grandfather

Occupational class of paternal grandfather	1	2	3	4	5	6	Total
N	111	57	23	49	39	33	312
%	35.6	18.3	7.4	15.7	12.5	10.6	100

educational institutions in Iceland to those in other countries, is the extent of grammar school enrolment even below the "middle class" equivalents of our scale. Yet these enrolments are clearly mediated by social class. But they also mirror the division between abstract and concrete work. Thus, requirements for entrance to clerical professions do not explain the relatively high proportion of upper level students from such families, whereas the concrete character of work in class 1 and 2 may, to some extent, explain their relative disaffection for "long education".

On the other hand, the table cannot be read as to the linkage of education and social origin. The raw figures for university level education (line 4) shows that the class composition of the university trained among the parents represents a rather equal numerical distribution of classes over that educational level (the clerical workers being an exception). The picture becomes even clearer, when adding lines 3 and 4, pre-university and university level.

Of the 34 per cent of the sample fathers graduating from higher educational levels, sons of unskilled workers amount to more than one third and double the number any other group sends to higher schools, more than three times as many as does the élite group. Thus, although education certainly is classbound, and aspiration appears, to some extent, to vary with a classbound perception of opportunity, and more important still, although higher educational facilities are restricted to the city, the educational system clearly serves as a vehicle of status change, of which lower class grandfathers avail themselves for their sons more than any other group. Education appears as the accepted index of an open opportunity structure, however biased it may be. And indeed, the relative openess of educational opportunity, and the numerically relatively equal social composition of the educated group (indeed very different from its homologs in other countries with higher "educational heritability") may be a factor contributing to the contradictory but characteristic "myth" of equality described earlier in this paper: The social equality of upper class men of different social origin is indeed a striking feature of Icelandic society.

The comparison with the women demonstrates the main overall trend, yet with the significant exception, by now already known: Women's participation in the upper levels of education is less than one third that of their male counterparts. Women are hardly represented among the university trained, whereas they are consistently overrepresented at the lower echelons of the system, and very much so in the lower social strata. But even with the blatant educational underprivilege of women, the relative participation of women of lower class origin at grammar school level is inversely related to class.

Thus although only 14.5 per cent of our sample mothers had attained upper educational levels, even for women the educational opportunity is a longterm if *slow* vehicle for social mobility, unless intermarriage pattern counteract those effects.

Table 21: Mothers at Upper Levels of Educational Attainment* by Occupation of Maternal Grandfather

Occupational class of maternal grandfathers	1	2	3	4	5	6	Total
N	47	32	9	25	27	19	159
%	29.6	20.1	5.7	15.7	17.0	11.9	100

* In the case of mothers "upper level education", with only four exceptions, refers to higher secondary (= grammar) school education.

Figure 5: Enrolment of Males and Females Rates in Secondary and Postsecondary Institutions by Age and Sex, 1966/67

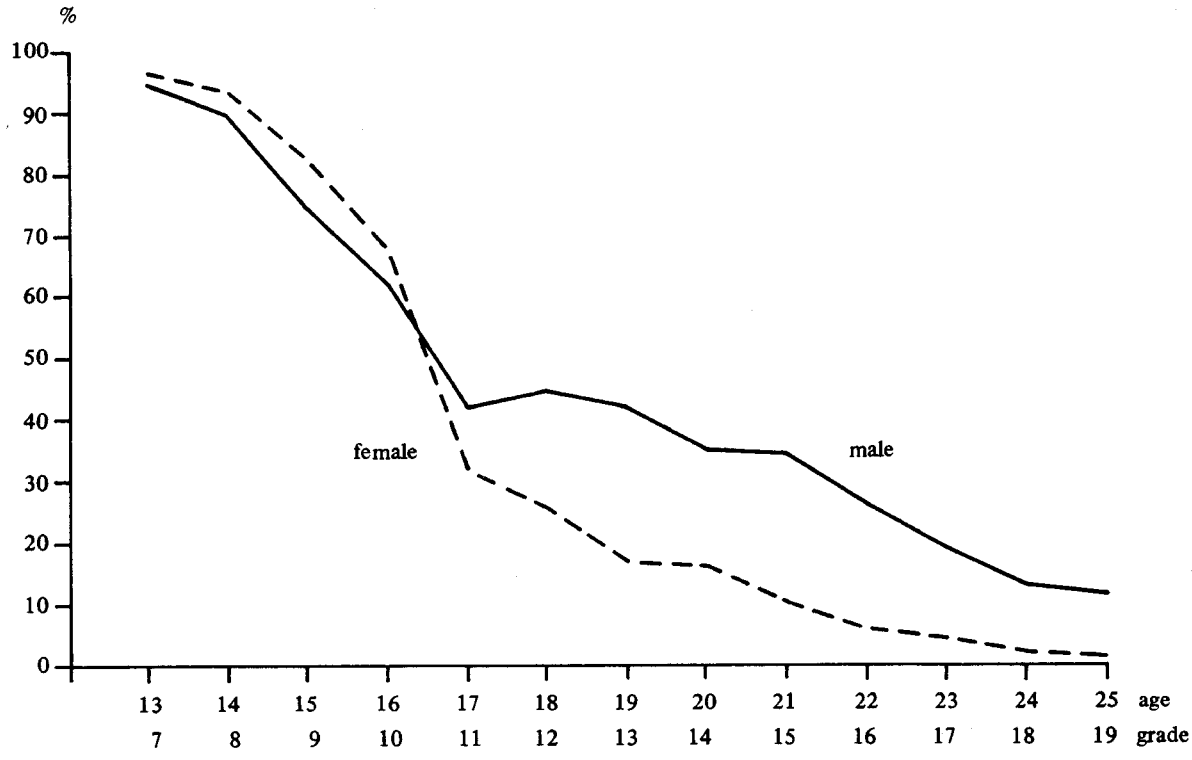


Figure 6: Enrolment of Females in Secondary and Postsecondary Institutions in Per Cent of Male Enrolment 1966/67

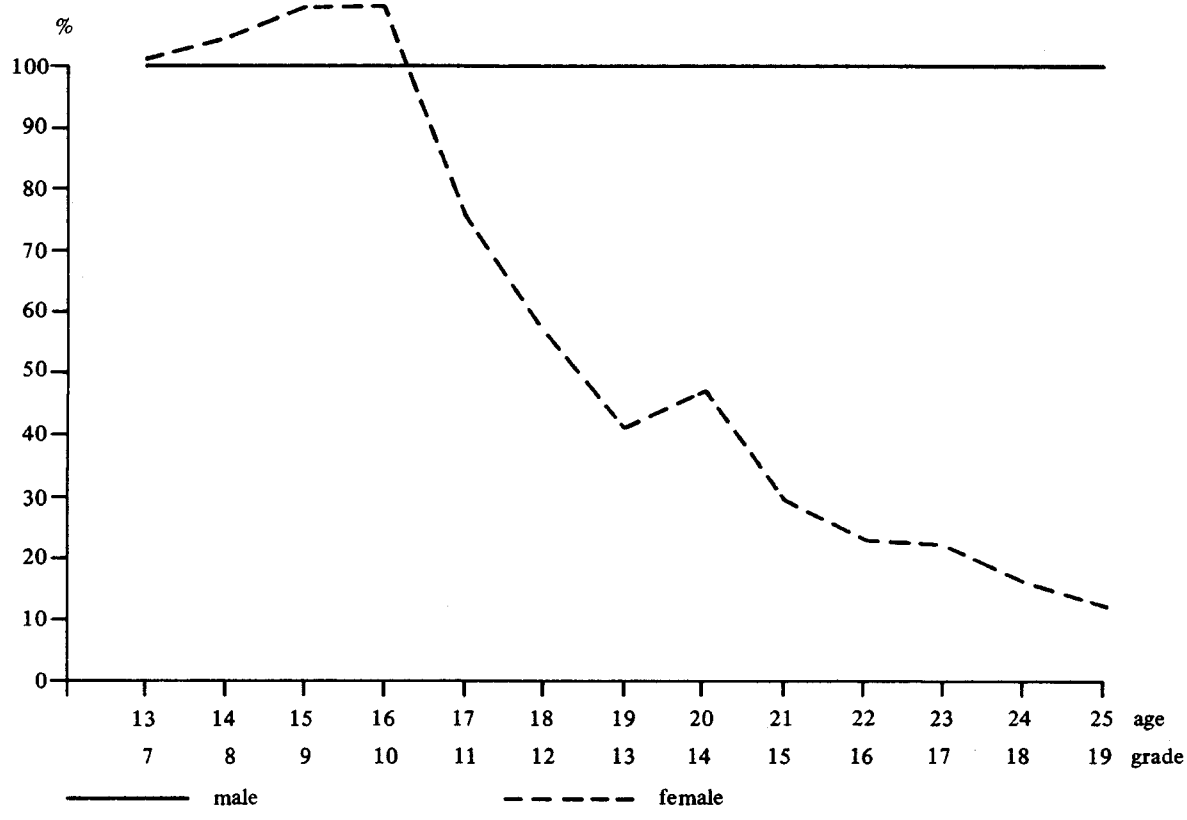


Table 22a: Enrolment Rates in Secondary and Postsecondary Institutions by Age and Sex, School year 1966/67*

Age	males	females	total	girls per 100 boys
	%	%	%	
13	94.8	96.1	95.5	101.4
14	89.4	93.0	91.1	104.2
15	74.4	81.3	77.8	109.3
16	61.9	67.8	64.7	109.5
17	41.8	31.7	36.9	75.8
18	44.2	25.2	34.7	57.0
19	41.7	17.2	30.0	41.2
20	35.0	16.3	26.1	46.6
21	34.6	10.3	22.8	29.8
22	26.0	5.9	16.3	22.7
23	18.8	4.2	11.5	22.3
24	13.0	2.1	7.6	16.2
25	12.0	1.5	6.8	12.5

*The schoolyear of 1966/67 is chosen as it represents a typical schoolyear for all of the sample aged 6 to 15 years in 1964.

Table 22b: Pupils and Students by Sex and Type of Institution

Institutions	total N	females N	
Lower secondary	3.467	1.951	56.3
Higher secondary	2.740	1.001	36.5
Higher commercial	64	22	34.4
Lower commercial	454	239	52.6
Teacher training	515	341	66.2
Special schools	3.392	775	22.8
Technical	106	17	16.0
University	1.180	275	23.3
Pupils and students in secondary and postsecondary institutions	31.256	15.231	48.7

The explanation for the very sizeable discrepancy between the relative educational participation of men and women is rather easily understood in terms of a functionalist approach: The parents interviewed in the mid-sixties had received their education, on the average, in the forties and fifties, i.e. before the major expansion of educational enrolment starting in the sixties. Education, then, was largely a function of male professional aspiration, subject to instrumental decision. This pattern largely excluded women, as there was no perceived need for them to aquire a vocational or professional qualification. The sectors of the labor market open to them offered unqualified jobs (clerical or manual). Their destiny was marriage, and for a married woman, especially of upper class origin, education was a housewife's ornament, not more. Thus women in Iceland constituted the industrial reserve of proletarian workers, an unskilled and fluctuating labor force and traces of their undereducation are still clearly perceptible in the seventies, as educational system data from the individual data files of the census bureau show.

To sum up: Evidence has been marshalled that education, in the generation which most strongly believes that social equality is largely realized in Iceland, is classbound to a very considerable extent. The evidence is that the underprivilege of class and sex is cumulative, as has been shown for other countries (e.g. Dahrendorf, 1965a, b; Dahrendorf and Peisert, 1967; Peisert, 1967 for Germany; Halsey, Floud and Anderson, 1961). The cumulative handicap of lower class girls wellnigh bars them from higher level education. However, the relationship between class and education leaves scope for aspirational variation: there is a phenomenon such as "over- vs under-education" relative to class position, to borrow an analogy from the discussion of school achievement. Moreover, the relationship between class and education in the higher levels of the educational system is considerably much looser, i.e. less classbound than it must commonly have been in the selective school system of Europe in the forties and fifties, when the parent generation in our sample went to school.

4.6 Income

Income is an important dimension of objective status definitions (see for example Scheuch, 1956). In our scale of occupational class, however, it is, contrary to other components used for status definition, a subjectively referenced dimension. This switch from definition by objective status components to subjective ratings operated first by the interviewee and finally by the interviewer needs special justification.

While measuring income is a well known dilemma in social research, for various reasons it is even more so in Iceland. The usual method is to collect information from income tax declarations or other statistical sources. This means relying on gross or net declared income levels. Such data are notoriously unreliable. Evidently, there is the official wage schedule (for workers of all kind, skilled workers, clerical professions and civil servants). However, this is a very gross approximation in accordance with official tabulations of qualifications required for a job. But for many reasons, from moonlighting to multiple qualifications or, more frequently, additional independent jobs, the official wage schedule gives only the barest hint as to income, let alone disposable income. It is a well known fact in Iceland that income reports of whole groups are misleading, due both to a complicated taxation system and to problems of tax control. Thus information based on income declarations or comparable sources (or on interview information referring to them), would leave extreme interpretive leeway for those with either full or parttime independent earnings. The bias thus would be class-specific. Especially, the entrepreneurial group's access to production means like business, shares, houses, fishing vessels and real estate would not be accounted for. This practically rules out the use of income statistics or tax-based income assessment for our purposes. Moreover, specifically Icelandic conditions turn the assessment of income-related living conditions into a wellnigh impossible task: how to deal with the widespread seasonal fluctuations, the large but irregular inflation rates, the amount of work invested overtime into commodities like housing[11].

We can sum up the dilemma in the following manner: Reliable data on income are hard to come by. Subjectively, sources of distortions are hard to control, and they do not deform information in a uniform, predictible manner that allows for correction. Objectively, even leaving out the problem of how to assess property, numerous intervening indices are needed in order to establish a common baseline: Family size, number of people who depend on the household, family earnings, family and subcultural stress on income and consumption number but some of these. Thus "objective" data tend to be of questionable sociological relevance in Iceland. They do not easily disclose the social or subcultural "meaning" attached to income.

What we were looking for, however, was less the economic status of the family than an indicator of "living conditions". Evidently, there is a relationship between the two. When faced with the dilemma of objective assessment, we chose to adopt a socio-psychological and socio-educational rather than macro-sociological stance and tap life-world reality of living conditions and the potential consumption span of a family. In this sense, we try to assess the "exchange value" of family earnings.

It is clear that by so doing we reconstitute a hard core socio-economic variable as a cognitive construct. The legitimacy of this procedure, evidently, is open to criticism. The procedure bears some resemblance to the substitution of the measurement of structural parameters of social inequality (such as class) by the assessment of "status". Status is a cognitive variable like job satisfaction, or satisfaction with family earnings, and implies a reference group frame for the orientation underlying the assessment or rating. We do not wish to suggest that cognitive representations like these yield knowledge of the "objective" structural parameters of the system (such as class, economic status). But the self-rating of disposable income on a scale of subjective satisfaction is likely to have a referential meaning. The terms of reference may be "subjective" but they are objectively constituted social facts and thus refer to a group that shares, implicitly or explicitly, the meaning attached to the value of income. Thus, the meaning pattern attached to the symbolic means of reproduction (money) yields one kind of valid information about the social life-world of people, information that is not simply substituted by knowledge of a more "objective" kind. It is surely essential to be clear about the nature of one's data: we are dealing with income as a cognitive representation of earned exchange values within a given set of occupationally defined living conditions.

The operationalization for the construct was designed accordingly:

11 According to the Basic Statistics of Iceland issued by the National Economic Institute, approcimately 80 per cent of dwelling units were owner occupied in 1975. Owners very often are involved in construction work and spend a substantial part of their time thereon.

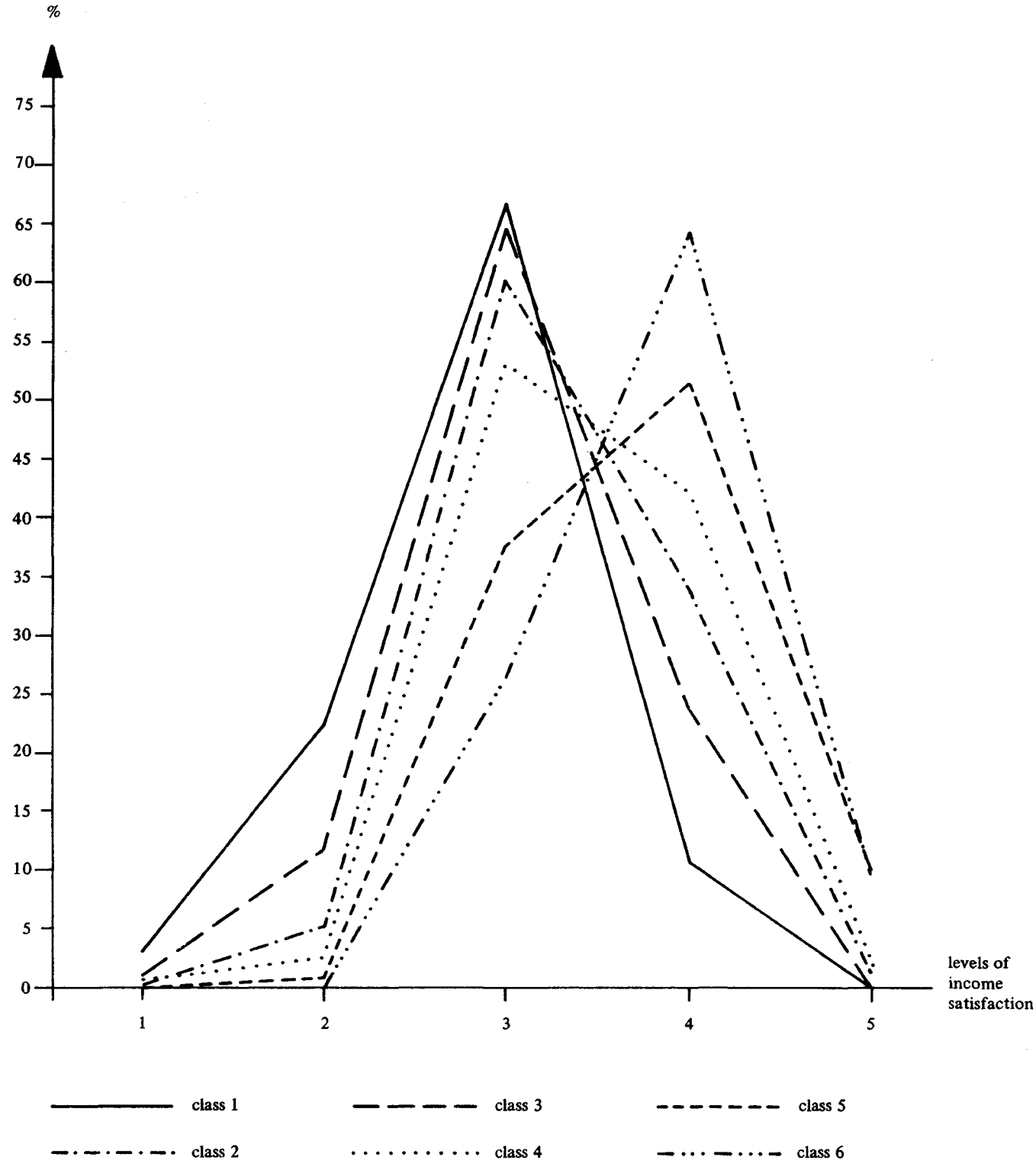
Table 23: Fathers by Level of Income Satisfaction and Occupational Class

Income level	Occupational class 1 %	2 %	3 %	4 %	5 %	6 %	total %	N
1	3.0	0.3	0.9	0.6	0	0	1.1	12
2	21.8	5.3	11.7	2.5	0.9	0	8.2	89
3	64.7	59.9	64.0	53.1	37.6	26.2	56.4	615
4	10.5	33.6	23.4	41.9	51.4	64.3	32.0	349
5	0	0.9	0	1.9	10.0	9.5	2.3	25
T	100	100	100	100	100	100	100	1.090
N	288	338	110	161	109	84	1.090	.
"Mean income level"	2.9	3.6	3.1	3.4	3.7	3.8	3.4	.

1. The basic operation was a rating of income on a 5-point scale that might be called a *scale of satisfaction with income.* The interviewer asked the mother how she would rate the "fiscal status" (or "financial ressources") of the family (an approximation to the Icelandic term for disposable income) on the following scale: *very constrained — constrained — average — good — very good.*
This clearly is an attitudinal variable, indicative of satisfaction or dissatisfaction with the family's living conditions and consumption opportunities.
2. The interviewer followed up the rating with a second operation: further questions in order to qualify in depth the information she had received. These questions relate to a) income; b) material possessions (housing; size and quality of house/appartment; real estate; type of car; furniture; etc.); c) consumption opportunities and habits of the family (clothing; travel; expenditure on art, books; etc.).
3. Finally, the interviewer, in a third operation, and on the basis of the mother's response to the rating and the information collected in the interview classified the family into one of the five categories of income satisfaction mentioned above. Thus the subjective assessments are controlled by the collection of data of a more objective kind.
The results are presented in table 23 and figure 7.
Several interesting features emerge from the table:
First: there is, as expected, a definite relationship between the occupational class affiliation of the family and the income it is estimated to dispose of[12]. Thus, although "constrained" conditions are rather rare, they practically only occur in the group of unskilled workers, and to a lesser degree among clerical workers. These two groups consistently judge their income situation to be less satisfying than the rest. The subjective judgments evidently mirror objective income patterns, as these unskilled group occupy the lowest positions in the wage hierarchy as scheduled by union contracts and the pay-schedule for civil servants. Also these groups have less opportunity for moonlighting and subsidiary jobs than those who can trade more marketable skills on their own.
Second: For all the tendency for income to covary with occupational status, income differentials are not a striking feature, as far as ratings of adequacy of disposable income go. Only roughly 10 per cent judge their situation to be constrained (or very constrained, to which only 12 individuals confess) and less than 2.5 per cent consider themselves to be very wealthy. Probably the latter figure is an underestimation, and the reference system perhaps does neither permit to "boast" ones wealth (verbally at least) nor to "complain" about ones poverty. The latter would be unmanly, the former bad taste, and risky. Notwithstanding these possible constraints on veridicality, indeed poverty is practically unknown in the country except in one group: aged people living off state pensions (aged people, of course, were not included in our sample of parents of 5 — 15 year olds). The family system in most case still functions well enough to keep the aged from a state of deprivation, but recent debates have brought to light that an

12 By mistake the chi^2 analysis was omitted from the computation program.

Figure 7: Ratings of Satisfaction with Income by Occupational Class of Fathers (1,100 Household Heads in Reykjavik)



economic pariah group of aged people is on the verge of emerging, unless social measures are taken to help them: the patterns of solidarity are thus beginning to show signs of whithering away.

If poverty has almost disappeared, this is a recent development in a society that has known poverty for centuries and whose basic interpretation patterns for long periods were derived from the knowledge and imminence of poverty, as the literature shows. Surely, this contrast between the historical modality of poverty and the present affluence is constitutive of many of the features of present day life in Iceland: the upsurge of the entrepreneurial spirit almost everywhere (also outside the entrepreneurial group proper to which it lends its push and motivation); the money and consumption orientation, the acquisitive attitude. To borrow Weberian terms, the spirit of capitalism in Iceland does not appear as a correlate of the protestant ethic. Rather, after centuries of deprivation, consumer interpretations of wealth as a capacity to achieve need gratification through spending generates the very opposite to Weber's (1964, 1969) ascetic ideal type. Whether causally related or only phenomenally, Riesman's (1964) other-directed type may be a closer fit.

We said earlier that our ratings may have led to an underestimation of income in the wealthy group. But surely, on an international standard, even the wealthy in Iceland are only moderately rich. When in our distribution some ten per cent declare their income or material ressources to be very satisfactory, this may in fact be rather close to reality.

The salient feature of the table is the empirical finding that the range of judgments is restricted to three, or rather two, of the five categories. In judgment at least, there is a great overlap in subjective assessment of income, in spite of the fact that wealth and income in Iceland is a rather conspicuous affair (although not easily accessible in terms of data collection). Social reference groups, this suggests, are not based on income, and the stratification process, though producing income differentiation, is not overly affected by income effects of class.

The overlap in income estimates is demonstrated by the bottom line, "mean income level", of table 23. While the maximum difference of 0.9 scale points between class 1 and class 6 appears amazingly small, the means well represent the amount of non-linearity in the overall increase of income ratings by class. The skilled workers, among whom the well earning tradesmen, are little below the entrepreneurial average and, realistically, higher than the educational-technical middle class.

The homogeneity is well represented in figure 7.

The remarkable overlap, a slight bimodality in the distribution dividing the two uppermost classes from the rest, and the low frequencies in the extreme categories allow a glimpse of yet another reason why the "myth of equality" is a social reality in Iceland. Inequality is not patent in the living standard and day to day habits of the people, and class affiliation is not reflected in their consumption behaviors. Equality of consumption might be corroborated by many income-related indices, although we can only present speculative evidence, based on everyday observation. The living standard, as measureable by quality of housing, car ownership, electricity consumption, telephone use (or, for that matter, travel abroad, number of books in the home or consumption of liquor) appears to be amazingly equal throughout the major part of the population, including many working class people. Another hint is contained in the civil service wage schedules which show the highest regular incomes (directors general of ministries) to be about double that of the lowest. (Wage and salary schedules are published by the Ministry of Finance on the basis of contracts between the Unions and the Ministry and adjusted regularly according to the legal cost of living index.)

Social inequality, if confronted with the apparent equality of a conspicuous living standard, and the consumption habits of a people only recently liberated from the equality of poverty, in the minds of men is but a latent structure. It is only when we look at the hidden structural parameters that inequality emerges from its latency.

4.7 Some Remarks on Intermarriage Patterns

In a previous section structural aspects of intergenerational mobility were described quite extensively. Intermarriage patterns may disclose a different type of mobility altogether as individual motives for the choice of partners — whatever the social mechanisms at work in determining them — are not predicated on the structural pull of occupational positions available in the economy. Intermarriage between partners of different social origin may be an indicator of mobility, or lead to it, as the classic literary example of the status climber or parvenu has it[13]. However, in order to assess a systematic tendency for upwards mobility, we cannot rely on status discrepancy in individual couples (which would be an interesting topic for research on family style and socializatory interaction). Rather, we have to look for systematic effects of status transition due to marriage.

Unfortunately, the only source available to us is a comparison between fathers' occupational class origin and that of their wives' (viz. maternal grandfathers), such as tables 6a and 6b may reveal.

The correlation of the two variables, whose distributional properties are shown in tables 5, 6a and 6b shows the common variance between the generations. The correlation of fathers' occupational class with grandfathers' is $r = .29$, whereas it is $r = .38$ with the occupational class of maternal grandfathers' — their fathers-in-law. These correlations, however low, are sizeable enough to show a non-spurious relationship to obtain between the occupational patterns of the two generations. It is tenuous enough, on the other hand, to show the attrition of an intergenerationally valid occupational structure due to functional differentiation of roles, as expressed by collective and individual mobility. Considering the difference between the two correlation coefficients, that between fathers and their fathers-in-law is slightly but significantly more important than that between fathers and sons. The social class of married couples, we may infer, appears to be slightly more determined overall by wives' social class of origin than by men's. A slight tendency towards marriage across class boundaries is visible in the data. However, wives' family backgrounds do not differ substantially from men's, and the restriction of occupational class differentiation in the grandparental generation (the salient feature of the older system) holds equally for both sexes. Thus, there are very definite quantitative restrictions on an "ideal" free movement between strata through marriage.

The inspection of tables 6a and 6b discloses a systematic if slight difference in class among men and women as measured by occupational class of paternal and maternal grandfathers. This is mirrored in the difference between the correlation coefficients just mentioned. Slightly fewer men of class 1 marry daughters of class 1 origin, whereas for all other occupational classes wives from class 1 origins are consistently if slightly overrepresented if compared to their partners. This means that there are consistently, if slightly more maternal grandfathers of class 1 in families of class 2 through 6 than there are paternal grandfathers. In other words: men tend to chose partners to some extent irrespective of a class origin lower than their own. On the other hand, this increases daughters' relative mobility in excess of that of men: The mobility percentages (to the right of the table) are higher for women than for men, especially for occupational classes 2 and 6. The strongest status discrepancy between partners appears in the skilled workers group (a difference of about 11 per cent). The same trend holds for upper class men marrying into families of skilled workers. However, in fathers' occupational classes 2 through 4, this tendency is reversed, with *fewer* maternal grandfathers of class 2 represented in each cell than paternal ones, a fact indicative of some amount of reverse status discrepancy between partners in marriage. A certain amount of status discrepancy is again found in marriages with daughters of entrepreneurial extraction, who are slightly overrepresented in class 3 and class 4 families. This might, in effect, be suspected to parallel the classical case of matching affection and money. To everyday knowledge this does not make much sense nevertheless, and it is really the question whether these matches should not to be interpreted as those random choices in a mobile system that a system highly determined in its parameters marginally permits. Daughters of clerical origin are somewhat overrepresented in upper class families, and middle class daughters in middle class families, where a tendency to an educational match is observed. Obviously, in class 6, daughters of high socio-educational status are underrepresented, most considerably daughters of educated middle class (4) and academic (6) extraction. The constraints produced on the tendency to status parity in the middle and upper groups by the under-education of women (dealt with earlier) are felt in the "higher" part of the system, whereas in other parts of it, the mobility of lower class daughters into higher strata bear witness both to a tendency towards socially nonselective partner choice on the part of

13 See for example the figure of Clyde Griffiths in Th. Dreiser's An American tragedy. The opposite case, marriage as an expression of downward mobility, has not received the same literary treatment. It is always the partner of lower origin that is promoted — in fairy tales for example, to the status of the prince.

men and, speculatively, to the absorption of better educated daughters into the higher strata. All in all, the relatively undifferentiated status system in the grandparents' generation works towards relative freedom of partner choice, whereas the pull of status and education is beginning to be felt in the social system; but in a contradictory fashion: both as an impetus and as a constraint.

These constraints, as compared with the literary models of barriers between poor man's son and rich man's daughter, valid for earlier generations, appear slight indeed. On the contrary, everyday knowledge is sensitized to partner choice based uniquely on affection and unhampered by social ties. To what extent this is a truthful perception (and to what extent it is deformed) is shown by the trends reflected in our tabulation. On the face of it, it lends credence to yet another aspect of perceived equality among members of society from different walks of life. The mobility columns show an upward trend of women in excess of that of men: The general functional mobility and mobility through marriage work cumulatively — for women. Marriage within the class of origin occurs more rarely still than intergenerational stability of class affiliation occurs in men. Men, it appears, do not look much at their partners' class or status; if there is constraint on choice, it is not in the usual direction of men seeking status through marriage; but rather of men ignoring status and preferring, as it were, happiness to success. To what extent status inconsistency in individuals and status discrepancy between them function as impediments to "happiness", as borne out perhaps by their offspring is a matter for further research on mobile families to investigate (Stonequist, 1937; Hoerning, 1977).

4.8 Family Size

A cautionary note is in order at the outset. The following chapter is not written from a demographic point of view. Accordingly we speak of family size, and not of fertility rates. As before we are interested in the intersection of social structural and social psychological characteristics in the life-world of the people under study. The family being the immediate generative matrix for the developmental and social character of individuals, it is constitutive features of the family we are looking for. Other things being equal, family size can be hypothesized to be an important property of the structural, cognitive and affective life-world of the developing child. The type of interaction of "significant others" (G.H. Mead) among themselves and with the child, the affective style, the role of siblings, and many socio-economic, environmental and normative characteristics of interaction are bound to be affected by the sheer number involved in the everyday interaction system that is the family.

On the other hand it is well known that family size is a classical modernization variable. Very generally speaking, number of children is known to decrease throughout the modernization process. Generative habits undergo secular change with growing hygiene and diminishing infant mortality rates; with urbanization and the corresponding change in housing pattern; with a change in economic systems away from agrarian primary production (where children may be an asset in the labor force) to industrial production where, with growing productivity of economically active individuals and growing returns on female labor, children turn into liabilities. Finally, with the emergence of the affectively constituted nuclear family and more child oriented social policies, children turn into emotional assets of more or less ritual importance for the cohesiveness of the family itself[14].

The overall secular trend (and the socio-economic and cultural change underpinning it) does not, however, reflect a uniform process. There are considerable class and education constraints on the process of decrease in family size, such that, generally speaking, the lower the class, the higher the number of children. Family size, therefore, is not only a descriptive variable but also an analytical construct.

Now, Icelandic society much longer than other western societies exhibited a number of particular features that appear to interfere with the "classical" pattern. We tentatively suggest the following rather unsystematic arguments, without, at this stage, marshalling analytical evidence:

a) persistence of agrarian family patterns, where children are "useful" and space is ample[15];

b) extreme sparseness of the population in a big country such that high reproduction rates are desirable for survival;

c) in the wake of beginning modernization and incipient industrial development around the middle of the century unemployment or economic recession became practically unknown; growing prosperity affected life style in all social classes, and with the latent persistence of agrarian family modes and patterns of reproduction imposed little restriction on fertility;

d) the latent persistence of agrarian family and reproduction patterns is presumably supported by the high mortality rates well into this century (in other words: even in the grandparental generation). These were due to lax hygienic control, tuberculosis, various epidemic illnesses such as measles and diphteria; pneumonia and problems of nutrition. Thus, high fertility rates served so to say a compensatory function;

e) the almost revolutionary transition to a "modern" social and economic system supersedes older patterns of insufficient hygiene and correlatively, mortality — a common feature of modernization. Infant mortality is drastically reduced (it is now one of the lowest in the world) while natality patterns remain unchanged for a while, then begin to trail off[16]. This leads to major change in the composition of the population which in some respects ressembles that of a developing country. The following tables present an overview.

Let us now look at the corresponding figures in our sample. The number of children in families is defined as number of children born to a family surviving the first year, plus foster-siblings and adopted children.

The following graphs show the change in the number of children intervening between the time in which the mother grew up in her family of origin and that in which her children are reared. We chose mothers' families, as the mother is the source of information for both parental families of origin. According to her

14 The growing literature on this topic cannot be dealt with here. See the overviews by Giehler and Lüscher (1975); DeMause (1975).

15 However, it should be noted that all available literature from the 19th century and the beginning of the 20th presents the fact of having many children as a liability rather than an asset — even in the prevailing rural setting. This may be due, hypothetically, to wide-spread extreme poverty and to the small size of many farms that could not exploit the children. The number of children born to a household was great, of course, due to the absence of contraception and also, probably, to prevailing religious norms.

16 Birth rates have dropped markedly in the last years. See table 25, note ***, p. 76.

Table 24: Population by Age Groups in Different Countries (in %)

Country	year of census or estimation	age groups under 15*	15–30**	30–45	45–65	65 or more***
Britain	1975	23	22	18	23	14
W. Germany	1974	22	20	22	22	14
France	1975	24	24	18	20	13
Denmark****	1974	23	23	19	22	13
Norway	1974	24	23	16	23	14
Sweden	1974	21	22	18	24	15
Iceland	1973	31	27	16	17	9

Source: Statistisches Bundesamt: Statistisches Jahrbuch 1976. Stuttgart 1976, table 3.3, p. 605 f.

* In Europe, only Turkey has a higher percentage of youth under 15 (42 %); Ireland with 31 % and Spain and the Soviet Union with 28 % respectively, follow Iceland.

** In Europe, Malta has the highest percentage in this age group (30 %), followed by Finland and Poland (28 %).

*** Including "age unkown".

**** Without Faeroe Islands and Greenland.

Table 25: Crude Live Birth Rates: 1974 and 5 Year Annual Averages 1925–69 (No. of Live Births per 1000).

Country	1925/29	1935/39	1945/49	1955/59	1965/69	1974*
Britain	17.6	15.3	18.3	16.4	17.5	13.9**
W. Germany	–	–	16.9	16.9	16.8	10.1
France	18.5	15.1	20.3	18.4	17.1	15.2
Denmark	19.8	17.9	21.6	16.8	17.8	14.2
Norway	18.5	15.0	20.8	18.1	17.7	14.9
Sweden	16.3	14.5	19.0	14.5	15.0	13.4
Iceland	25.5	20.9	27.2	28.3	22.9	20.4***
Ireland	20.3	19.4	22.5	21.1	21.5	22.3
Spain	28.7	22.0	22.2	21.3	20.7	19.3
Portugal	31.7	27.1	25.6	24.2	21.3	19.3
U.S.A.	44.4	37.6	–	25.3	17.8	15.0

Source: UN Demographic Yearbook 1969. New York 1970, p. 262 ff., table 12; UN Demographic Yearbook 1972. New York 1973, p. 473 ff., table 16; UN Demographic Yearbook 1974. New York 1975, p. 244 ff., table 9.

* Preliminary figures.

** 1973.

*** Between 1960 and 1974 natality figures developed as follows:

1960 = 28.0	1968 = 21.0
1961 = 25.5	1969 = 20.8
1962 = 25.9	1970 = 19.7
1963 = 26.0	1971 = 20.8
1964 = 25.3	1972 = 22.3
1965 = 24.5	1973 = 21.5
1966 = 24.5	1974 = 20.4 (preliminary figures)
1967 = 22.2	

information there is no significant difference in size between maternal and paternal families (Mean number of children in mothers' family: 5.65; mean number of children in fathers' family: 5.51).
The mean number of children per family has decreased sharply (by roughly 2 out of an average of 5.65) in one generation. Not only the mean, but the spread has diminished very considerably. Thus, both the modal family and the number of large families is smaller, and the maximum number of children in large families has fallen from about 20 to about 12. Still, the average Icelandic family is bigger than the average size of the nuclear family in comparable countries.
We should expect the socialization conditions in families with on the average one or two siblings to be different from those with three, four and even more children. Relevant dimensions of interaction, affect, warmth, communication but also the amount of time available for the child and strategies of coping with interpersonal and organizational dilemmas will be different from the typical western family with on the average two children or even less. Hypothetically, larger families constitute a different "ecological system" than small ones (see Bronfenbrenner, 1975; Hoffman, 1975; Marjoribanks, 1972; see also Moos, 1973)[17].
The size of the family then, is a relevant ecological variable in socializatory life-worlds of families. Therefore the study of covariations of this variable with class may serve to better characterize possible socializatory environments or class-related life-worlds of families. Table 26 presents family size as a function of occupational class of fathers[18].
The table shows a significant if limited overall relationship between occupational class and family size. It is only when this relationship is analyzed in greater detail that the information contained in it begins to yield its social meaning.
The right most column of the table lists the mean number of children for each occupational class. Two features among these figures arouse interest: There is a difference between "lower" and "upper" class — in the expected direction: The higher the class, the smaller the mean number of children in a family.
But the relationship is not monotonous. Rather, two distinct groups emerge, a pattern that is going to appear time and again as we proceed in the analysis: On one hand there is an ensemble constituted by the unskilled workers and the entrepreneurial groups with a mean number of children approximating 3.8. All remaining groups cluster between a mean of 3.4 and 3.5. From the mobility tables (table 6) we have information about the composition of the entrepreneurial group (45.6 per cent of this class is of working class origin). The similarity between the groups thus appears to be based on a substantive share in a common social heritage. Just what is this heritage that is expressed in dimensions as varied as number of children and school grades? What is the unifying causal agent behind the phenomenal or behavioral uniformity between groups as widely discrepant in the occupational system? What in other words, constitutes their similarity and, conversely, what their difference?
The total number of children in each class almost exactly reproduces the proportions of the population which these classes represent. Their relative importance is not changed through biological reproduction. But if we look at clusters of "normal sized" versus "large" families (one through four versus five through seven children) systematic differences between occupational groups begin to emerge: The "normal-sized" families show an almost monotonous increase in number from lowest to highest class. The exception, as before, is class 5, closest, again, to the unskilled group. The largest number of such families, by far, is found in the professional/academic group. Very small families with only one child are definitely underrepresented in the highest groups, and overrepresented among unskilled clerical workers. This allows of specific explanation, as we find a number of single mothers in this group, who account for the difference. This type of family may give rise to specific socializatory problems (Bronfenbrenner, 1975). We shall return to this below, in section 8. Class 6 with regard to a specific family size pattern again differs from all other groups: Very small families are least frequent, and three or four children households by far most frequent in this group. The pattern suggests a planned family, something like a conscious decision as to the size of the family desired. A look at the distribution of *large families* serves to clarify the picture: The classes with the lowest proportion of "normal-sized" families (unskilled and entrepreneurial) are considerably overrepresented among the large family groups (32 and 30 per cent, respectively), the unskilled group showing even less of what may be planning effects. Attempting to find an explanation it is

17 A further recent drop in number of children can be observed, probably due to the more marked use of contraceptives and the inception of family planning, itself a modernization phenomenon in need of explanation. See above, table 25, note ***, p. 76.

18 Number of children was controlled for parents' age. There is no difference between mean age of parents in any cell of the matrix over the 11 age groups of children in our sample. There is no class variation in the age of parents at the birth of their children. Mean age of fathers at the time of child's birth (1950) was 31.2 years, mean age of mothers was 27.7 years. For 1961 the figures were 30.4 and 27.2 years respectively.

Figure 8: Mothers' Families of Origin by Number of Children (N = 1,100)

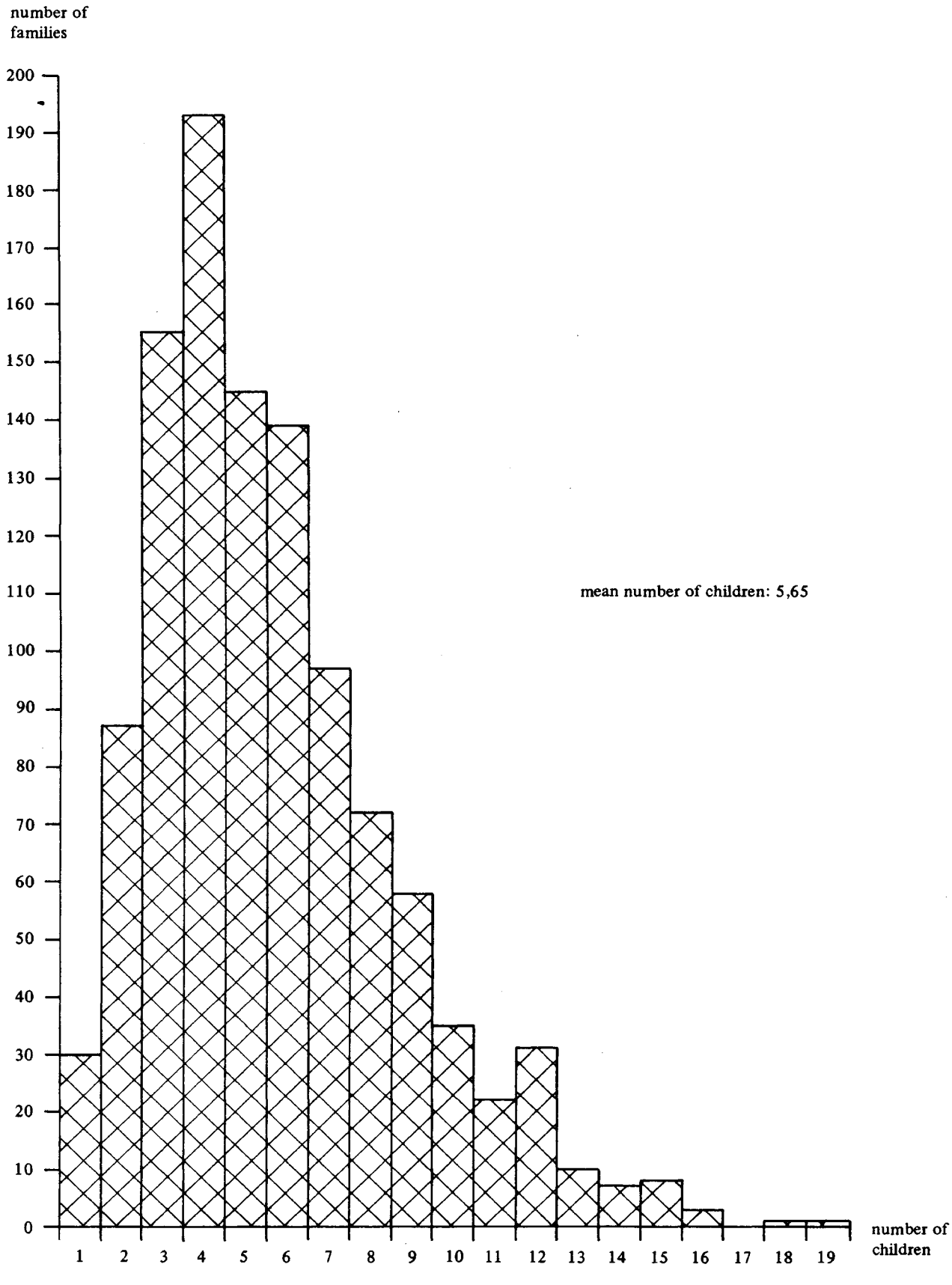


Figure 9: 1,100 Families in Reykjavik by Number of Children

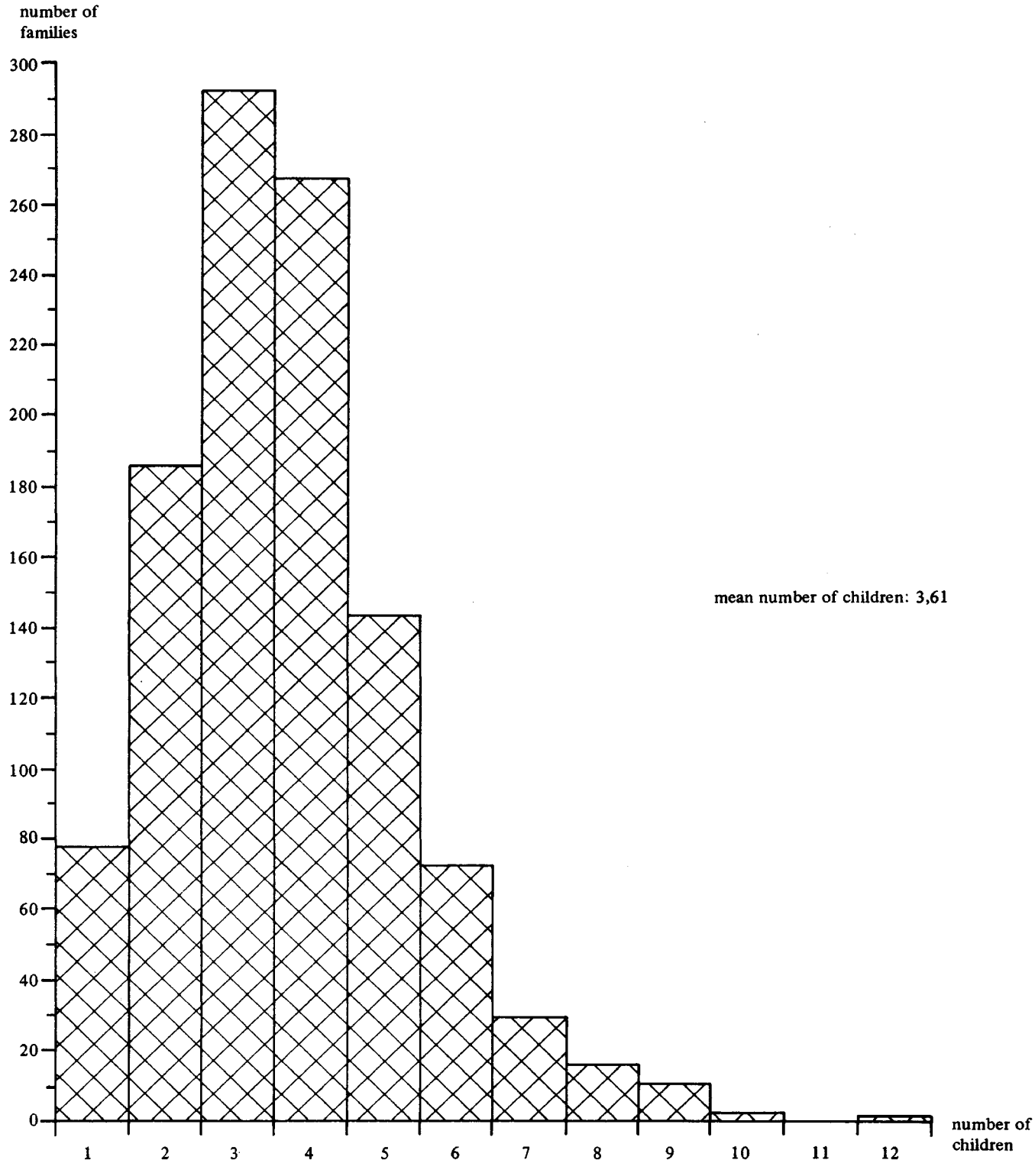


Table 26: Families by Number of Children and Occupational Class of Father

Occupational class of father	N – %	families	children	number of children in families 1	2	3	4	small families (1–4 children)	5	6	7 or more	large families (5 or more children)	total	mean no. of children
1	N	289	1.119	22	37	77	60	196	35	29	29	93	(289)	3.87
	%	26.5	28.4	7.6	12.8	26.6	20.8	67.8	12.1	10.0	10.0	32.2	100	.
2	N	338	1.189	26	60	88	87	261	45	18	14	77	(338)	3.52
	%	31.0	30.2	7.7	17.8	26.0	25.7	77.2	13.3	5.3	4.1	22.8	100	.
3	N	110	377	13	23	27	23	86	14	5	5	24	(110)	3.43
	%	10.1	9.6	11.8	20.9	24.5	20.9	78.2	12.7	4.5	4.5	21.8	100	.
4	N	161	555	12	30	43	43	128	20	9	4	33	(161)	3.45
	%	14.8	14.1	7.5	18.6	26.7	26.7	79.5	12.4	5.6	2.5	20.5	100	.
5	N	109	410	4	21	26	25	76	19	7	7	33	(109)	3.76
	%	10.0	10.4	3.7	19.3	23.9	22.9	69.7	17.4	6.4	6.4	30.3	100	.
6	N	84	287	2	16	28	26	72	8	3	1	12	(84)	3.42
	%	7.7	7.3	2.4	19.0	33.3	31.0	85.7	9.5	3.6	1.2	14.3	100	.
T	N	1.091	3.937	79	187	289	264	819	141	71	60	272	(1.091)	3.61
	%	100	100	7.2	17.1	26.5	24.2	75.1	12.9	6.5	5.5	24.9	100	.

$chi^2 = 47.80$
df = 30
$p < 0.05$
C = 0.20
max. value of C = 0.913

appealing to draw on social psychological correlates of lower class culture: impulsiveness, or lack of situational restraint as compared to the planning habits of the "rational" Weberian ideal type: controlled, self-restraining and upward mobile, ready to defer gratification and to consider consequences. High aspiration level for children in the family may be an integral part of the planning-orientation of the higher middle and the non-traditional, more "functionally" defined higher classes[19]. Aspiration level seems linked to educational background which is an important component of high occupational status. On the other hand, lack of education is salient in women of the lower strata[20]. "Large" families are in evidence in only about half as many class 6 families than in class 1 and 5 families. This is the most striking feature of the table. Clearly the overall chi^2 rather serves to blur this important contrast. The greatest contrast thus is between the two highest and adjacent groups, while one of these (class 5) is demonstrated to be closest to that most distant from it in terms of the status-defining characteristics. The remaining classes (2 through 4) cluster in the middle between the extremes defined by the pattern of strata just described.

One final look at the three and four-children families. This family type appears to characterize classes 2, 4 and 6 — social strata, which, to some extent, are education-based. It looks, as if in the fifties and sixties three and four children must have corresponded to something like a latent normalcy concept of the family. Since this time, the modal family size has decreased.

The pressing question raised by the foregoing interpretations remains largely unanswered by research: How are inner dispositions, characteristics as intimate as reproductive habits generated if they really do relate to social structures, as they evidently do. In what way do they become "social facts", structurally induced characteristics of individuals who, insofar, *are* "social" characters? And conversely, what role does the internal structure, the psychic disposition play in the transmission of social structure? The relation of character and social structure again comes to the fore as the old unanswered question in the sociological tradition reaching from Marx and Weber to Horkheimer, Gerth and Mills, Parsons, Merton and Riesman. Yet a stringent causal derivation, a closely knit correspondence between social structure and character has not been proposed in convincing terms. In spite of many efforts, the division between theories of the macro-structure and the micro-structural orientations in sociology (Kemeny, 1976) still is a dominant feature of social science, leaving psychoanalytic insights into character formation sociologically in abeyance.

19 See below, section 8.

20 We shall consider the effects of education as a moderator variable in the next section. Perhaps there are differences between classes in cultural patterns or habits of pleasure and fun, also involving heavy drinking which, hypothetically, is more frequent in the lower strata with less education — a cluster of attributes possibly linked to generative patterns. See Helgason (1964, 1977).

4.9 Family Size and Education

We propose now to consider to what extent the education of parents enters into the relationship between family size and occupational class. Table 27 presents the relationship for fathers.

The relationship between educational levels of fathers and number of children rather exactly parallels that of occupational class and family size, in particular if level 1 fathers are compared with class 1 and 5 fathers, and level 4 fathers with those of occupational class 6, both for normal sized and large families. This is as expected, as we know of the close relationship between occupational class and educational levels of men ($r = .68$). The occupational variable in other words, is largely influenced by education. The overall chi^2 analysis yields a $p < 0.01$. This is better understood if we look at the pairwise contrasts between educational levels (table 27a). They demonstrate that the significant contrasts are all between the lowest level and the rest.

We know, however, that the relationship is much less close between mothers' educational level and men's occupational class ($r = .36$). The relative educational deprivation of women produces a systematic discrepancy that is reflected by the lowered correlation. If, however, a close relationship is obtained between women's educational level and number of children, the educational influence on family size and planning appears strongly corroborated. Therefore, educational level of mothers can contribute more to our understanding of the forces as work in determining family size. Table 28 presents the data on this relationship.

The chi^2 analysis shows that the association between educational level of women and number of children is closer still than in men. The probabilities decrease to 0.001 for both contrasts between lowest and higher levels of education, although the highest level of education is practically not attained by women in our sample; and although, furthermore, we can expect more women in the lower educational levels to be members of the regular labor force, and we also know more women than men to be parents of only children. While for men, educational levels 1 and 3 differed by roughly one fifth in the proportion between normal sized (31.2 per cent) and large families (24.3 per cent), this difference increasing to one half, when level 1 (31.2 per cent) is compared to level 4 (15.2 per cent), the latter difference, in women, is attained already in level 3. In women, the higher secondary level of education thus, in terms of certain effects on life style, appears to correspond to university level of men — a fact that speaks for the influence of education as a moderator variable for family size. Influence of education on life plans and life styles and interpretations of the meaning of family, as well as greater capacity to avail oneself of technical and symbolic means of control may be responsible for the difference in family size between differentially educated groups.

The pattern becomes clearer when class origin of better educated women is considered (see table 21). Whereas about just one half of the total lower class descendants are upward mobile, more than half (roughly 55 per cent) of better educated women originate in the lower half of the occupational pyramid (classes 1 through 3). The inference is that lower class parents who promote their daughters educationally probably differ with regard to aspiration and other cognitive and affective characteristics from those who (only) promote sons.

The remaining better educated women mostly come from a background that is strongly determined by education (occupational groups 4 and 6), where educational influences on life styles and the interpretation of life-worlds are traditionally felt anyway. The slight difference between correlations that reflect the differential associations of men's and women's educational level with number of children (or, from another point of view: with control of family size: $r = -.08$, $p \leqslant 0.01$ for men, $r = -.14$, $p \leqslant 0.001$ for women) is probably due to such differences in outlook, showing, for women, a somewhat stronger tendency to restrict births with advanced levels of education than for men.

Table 27: Families by Number of Children and Educational Attainment of Father*

Educational level of father	N – %	number of children in families 1	2	3	4	small families (1–4 children)	5	6	7 or more	large families (5 or more children)	total
1	N	25	51	94	81	251	45	36	33	114	365
	%	6.8	14.0	25.8	22.2	68.8	12.3	9.9	9.0	31.2	100
2	N	27	49	98	95	269	52	15	17	84	353
	%	7.6	13.9	27.8	26.9	76.2	14.7	4.2	4.8	23.8	100
3	N	11	47	59	48	165	34	11	8	53	218
	%	5.0	21.6	27.1	22.0	75.7	15.6	5.0	3.7	24.3	100
4	N	2	21	30	31	84	9	4	2	15	99
	%	2.0	21.2	30.3	31.3	84.8	9.1	4.0	2.0	15.2	100
T	N	65	168	281	255	769	140	66	60	266	1.035
	%	6.3	16.2	27.1	24.6	74.3	13.5	6.4	5.8	25.7	100

* For the definition of levels of educational attainment ("educational level") see above, p. 58.

chi^2 = 41.33 C = 0.19
df = 18 max. value of C = 0.866
p < 0.01

Table 27a: Between Level Contrasts of Fathers' Educational Attainment and Number of Children (chi^2)*

Educational level	N	df	chi^2	p ⩽	C	max. value C
1 : 2	718	6	15.38	0.02	0.14	0.707
1 : 3	583	6	16.08	0.02	0.16	0.707
1 : 4	464	6	17.89	0.01	0.19	0.707
2 : 3	571	6	8.05	0.30	0.11	0.707
2 : 4	452	6	10.40	0.20	0.15	0.707
3 : 4	317	6	6.97	0.50	0.14	0.707

* The chi^2 analysis is used for individual contrasts here and below in spite of its approximative character in such analyses, in order to highlight systematic differences between and communalities among groups. Statistically the chi^2 test overestimates the relationship (significances) in repeated pairwise applications. Structurally, however, the differences in the relationship among individual groups are well revealed by this procedure.

Table 28: Families by Number of Children and Educational Attainment of Mother

Educational level of mother	N – %	number of children in families 1	2	3	4	small families (1–4 children)	5	6	7 or more	large families (5 or more children)	total
1	N	41	74	138	144	397	76	53	46	175	572
	%	7.2	12.9	24.1	25.2	69.4	13.3	9.3	8.0	30.6	100
2	N	19	60	91	67	237	51	13	8	72	309
	%	6.1	19.4	29.4	21.7	76.7	16.5	4.2	2.6	23.3	100
3 + 4	N	7	37	51	45	140	12	5	5	22	162
	%	4.3	22.8	31.5	27.8	86.4	7.4	3.1	3.1	13.6	100
T	N	67	171	280	256	774	139	71	59	269	1.043
	%	6.4	16.4	26.8	24.5	74.2	13.3	6.8	5.7	25.8	100

chi^2 = 49.46
df = 18
p < 0.001
C = 0.22
max. value of C = 0.866

Table 28a: Between Level Contrasts of Mothers' Educational Attainment and Number of Children (chi^2)

Educational level	N	df	chi^2	p ⩽	C	max. value C
1 : 2	881	6	27.09	0.001	0.17	0.816
1 : 3	724	6	25.00	0.001	0.17	0.816
2 : 3	461	6	10.25	0.20	0.14	0.816

Part III
Validations of Class

5.
Social Inequality and Socialization Research: Some Introductory Remarks

In the preceding chapter we have discovered some descriptive evidence for the existence of a social class structure in Iceland. The data discloses a rather coherent pattern of inequality with increasing distance between classes on various important dimensions as the distance between their rank order positions increases. We also have some evidence as to how this pattern has emerged out of a simpler structure in close connection with changes in the structure of society, with industrialization and urbanization intervening between two generations.

The preceding section has begun to transcend a purely descriptive intent. Whereas this and the previous chapters were to describe the features and characteristics of social groups defined by a more or less intuitively constructed scale of occupational class, throughout this section we were gradually led to adopt explanatory arguments. In a way, this is due to the nature of the variable under study. Whereas the rank order of occupations, mobility rates and income levels are directly descriptive of and "simultaneous" with the groups defined by the scale, family size is a somehow separate and distinctly defined entity, whose linkage with occupational class is not evident on a priori grounds and therefore is in need of explanation.

In this respect it has more in common with the following sections. These will be devoted to phenomena or "constructs" distinct from but related to occupational class. How these relate causally to occupational class is, at present, a matter of conjecture; yet, the sheer existence and structure of the relationship contributes to our knowledge of the meaning of class in Icelandic society. The social reality embedded in or related to "occupational class" hopefully will lead to an understanding of the life-worlds and subcultural characteristics that mediate between social structure and personality, between the collective characteristics of the culture and those of the individual subject in whom they are differently yet consistently represented.

Family size, in the preceeding treatment of this variable, besides describing a feature that evidently in some respect is descriptive of occupational class, has acquired something like an analytic status. It directly indicates something about the family worlds and socialization conditions of children. In the following chapters we purport to probe further into such characteristics of families and individuals that may be expected to yield information or, at least, permit fruitful speculations about life-worlds and socialization climates presumed to relate to occupational status. We chose cognitive and affective attributes of children (like IQ, school marks and mental health) and attributes of families (like patterns of child rearing). Technically, these characteristics are treated as "dependent variables" in relation to the occupational class variable, which is conventionally treated as "independent". If family characteristics and attributes of individuals "covary" with class, and if these covariations show interpretable patterns (e.g. monotonic increases or decreases along the class dimension; or non-monotonic relationships, or both), this should contribute to two different objectives: a) "validating" our construct of the "system of unequality" against the data, and b) help us draw (speculative) inferences about life-world characteristics supposedly relating to that system. On the basis of the data at hand, we expect to "verify" the contention that the system of social inequality is composed of a hierarchically ordered set of occupational classes. At the same time we entertain the notion of non-ordinal, qualitatively distinct life-worlds or subcultures, in some way linked to the ordered set of strata which contain indicators for the former. These qualitatively different life-worlds are held to be responsible, through the families nested within them, for the effects these latter systematically and non-idiosyncratically produce in the psychic dispositions of individuals. The transmission of the culture and the relationship between social structure and personality is thus explained through the same interaction-based mechanism. The hierarchical and qualitative structure of the system of social inequality is the frame within which universal *and* particular, i.e. qualitatively distinct action problems "emerge" (that is: are defined). It is these problems which "elicit" as requisites for social coping the "performance rules" which are incarnated in the personalities in the process of socialization. The socialization process can be viewed as a system of actions, in which the emergent personality is counterfactually held to be endowed with a capability to act according to rules that permit the handling of an action problem. Parents or other significant socializers already factually endowed with the capability who entertain the counterfactual definition for the children thus enable them to be *partners* to the socialisatory interaction. We hypothesize it to be precisely this counterfactual ascription that triggers the development of the personality structure presupposed to be already at work in the interaction. (Oevermann et. al., 1976a, 1976b)

In the classical type of socialization research, socialization variables have the status of dependent variables "affected by" the class variable. The modal paradigm of socialization research is based on a probabilistic conception of relationships between variables, whose correlative and distributional characteristics are the objects of investigation (see the critique in Krappmann et. al., 1976). Although we entertain the hope to eventually use a different paradigm, we are clearly lodged within this tradition, due

to the nature of our data and their organization. Nevertheless, we anticipate four different types of possible outcomes, which demonstrate the limits of the classical paradigm of correlational socialization research:

a) No covariation between the class variable and the "dependent" variables in spite of demonstrable inequality (i.e. differences between groups would not be aligned with class as defined by us). This sort of result would lead to an interpretation of the following type: In spite of social inequality as demonstrated, for example, by the system of occupational stratification, Icelanders all live in the same life-world. The paradigm of class-specific socialization fails to extract significant variations in the socialization effects. The "myth" of equality is corroborated, or rather: on the basis of the data, it is not possible to demonstrate whether such findings (and this myth) are true or false.

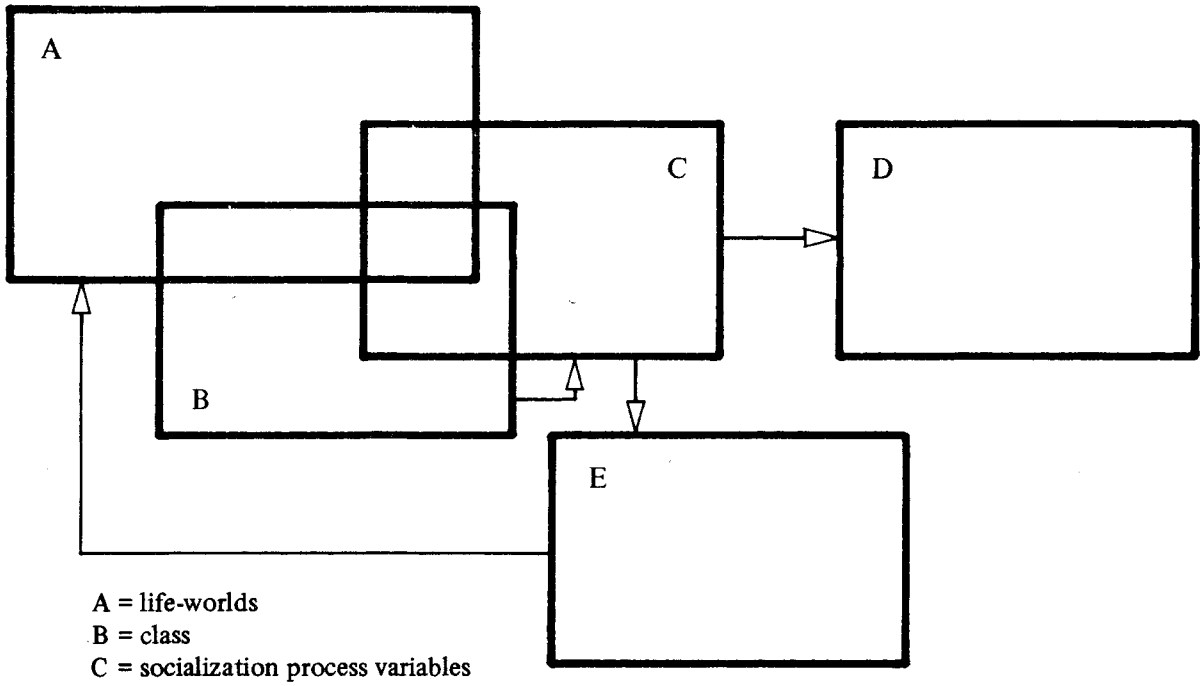
b) No covariation, and no inequality, as no significant differences in group means are detected. This would be a refutation of our common sense perceptions of inequality.

c) Monotonic covariation between the class variable and (increase/decrease of) a characteristic as represented by the "dependent" variables. This can lead to two types of interpretation: *One*, an interpretation consistent with the usual paradigm; the findings are linked to the statistical (distributional) attributes of the class system, rather than to sources of qualitative differences between life-worlds. *Two*, an interpretation transcending the paradigm: class and life-world are identical; classes are qualitatively different, disjunct life-worlds. But in order to justify the second interpretation, sufficient reasons cannot be adduced on the basis of the present findings. Additional information is needed.

d) Non-monotonic covariation between the class variable and "dependent" variables. Results of this type indicate that besides quantitative differences qualitative differences between the groups are salient. Different from the first interpretation in c), the "class system", then, is not (or not uniquely) defined by statistical properties; rather it is a "system of unequality" in which different groups constitute, partly at least, different life-worlds or subcultures.

Evidently, such covariations beg a question. We have indicated that it is not SES itself that can be assumed "to account for variations in dependent variables", i.e. to produce variations in psychic or social-psychological dispositions. Therefore, what has come to be termed "intervening variables" constitutes the prime focus of research that purports to advance causal explanations of covariations. Something like the following chain may help visualize the causal relationship held responsible for the emergence of covariations between class variables and socialization effects.

Life-worlds are seen as communicational and interactional patterns nested within the social network also tapped by SES in various ways. These communicational and interactional patterns simultaneously determine the influences at work in the socialization process, in which infants and children learn to "spell out" the pattern "lived" to them; spelling out means: building up rules for interpretation and behavior, including self-interpretation as well as those modalities of interaction with self and others that we term "character" or "personality".



A = life-worlds
B = class
C = socialization process variables
D = cognitive, affective, motivational attributes and personality characteristics
E = further indicators for life-worlds derived from findings of socialization research

6.
Class and Intelligence

6.1 An Outline of the Analysis of Children's Intelligence

It is trivial to point out that IQ is one of the most commonly used measures of cognitive performance. It is also well-known that for various reasons its justification is much debated. Particularly the validity of IQ measures for different social groups or subcultures has been seriously questioned, and with good reason. Much of the criticism has been levelled at the use of standard measures of intelligence in populations that are highly heterogeneous with regard to ethnic origin or linguistic community. In our case, this criticism does not apply, as the test is standardized on the group under investigation. Moreover, on a priori grounds, as mentioned earlier, this group may be considered homogeneous with regard to ethnic, linguistic and other cultural characteristics. At the outset of the investigation, differences in measured IQ just may, by and large, be expected to reflect differences within, rather than between groups. We therefore have reasonable hope that we are able to avoid much of the bias that has beset many studies using the intelligence concept.

It is another question, however, whether the concept of intelligence, as defined by the use of standardized tests, has much explanatory value. It is used here as a descriptive concept. We adopt it as an exploratory device. Admittedly, if systematic differences are discovered in the population, we are not in a position to state what these differences "mean in reality". Yet such differences permit to generate hypotheses about the social conditions of the emergence of cognitive functioning, in other words: about the interaction of social and developmental structures. However, an investigation that purported to test such hypotheses would require a different approach both as regards the elucidation of structure and process involved in social class affiliation and as regards cognitive performance. Hypotheses then must be tested against substantive constructs both of social class (or differential lifeworlds) and of cognitive competence and performance, constructs, that is, which can aspire to explanatory adequacy. The following analyses are purely eploratory in nature and make use merely of the distributional properties of the IQ construct. It may be useful to briefly outline the rationale of the following analyses before reporting them.

To use metaphor, we try in repeated "assaults" to peel off successive layers of an onion-like phenomenon — the relationship between parameters of the system of social inequality and the parameters of the cognitive system. We hope that these repeated assaults yield more insight into the constitution of socio-cognitive systems than would a mere correlation study. Therefore we try to lay bare the structure of relationships linking various elements of the social system (like class or level of educational attainment) to elements of what for convenience may be termed the cognitive system.

In order to render these relationships more transparent, in a *first* "assault" we start from the gross variable, the most general concept or the simpler structure, and proceed to the more differentiated, specific or complex ones. Taking IQ as an example, we start by analyzing the IQ reached by the children, or better: mean IQ reached by children of a given class (table 29). We look at differences between sexes in this variable and discuss class-specific variations in these sex differences, as they emerge from the analysis (table 30). A further step is the investigation of the "contributions" that different social classes make to given IQ ranges, separately for each sex, i.e. the differential impact of class on the distribution of children at different IQ levels (table 31). Differential impact is further specified by a comparison between the frequencies as expected on the basis of the proportion of the class in the sample and the observed frequencies for that class at given levels of intellectual performance (table 32). Finally this analyses is carried one step further by specifying the differential impact of class on frequencies in the extreme IQ ranges (table 33). These descriptive analyses of distributions or frequencies lead to converging insights as to social class "effects" on intelligence, as mirrored in the distribution of IQ in the sample.

Clearly, a *causal* relationship between class and cognition can not be postulated on the basis of the description of distributional patterns. But we may say that a causal pattern becomes more and more plausible as one studies the distributional pattern. Whereas the main thrust of the analysis just outlined goes toward describing the patterns of relationships linking IQ to class with the sex variable playing the role of a "moderator variable", in a *second* assault the focus is on sex. Starting from the insight gained in the previous analysis that girls' IQs are generally depressed below boys' we now subject this phenomenon to closer scrutiny. First the class-specific distributions over the various intelligence levels are considered for boys and girls separately, allowing of comparison between the sexes (table 34). Then, in a further step, the differential representation of the sexes in the two highest IQ ranges are studied (table 35).

In a *third* attempt at understanding the pattern of inequality as mirrored in systematic differences in IQ between various groups, we now split the IQ variable into verbal and performance IQ, looking, first, for interpretable differences in their respective overall distributions over class (table 36), and then for both sexes separately (tables 37 and 38). In a further specification, differential representations of the sexes in the high and the low verbal and performance IQ ranges are studied (table 39, figure 10).

An increasingly clear picture of sex-related inequality in cognitive performance does emerge from the data showing class and sex to interact in their "influences" on cognitive performance. Therefore, in a final step, through re-arranging the data according to age and class, we study sex differences in intelligence (verbal and performance) in two different age ranges (younger and older), discovering an age-related pattern of "cumulative cognitive deprivation" in lower class girls (table 40).

In a *fourth* attempt, we now go over part of the previous analyses again, substituting the education variable for class. This is done under the assumption that intellectual performance of children may be more closely mediated by parents' educational attainment than by class alone. Thus we cross-tabulate fathers' educational attainment first with full IQ of all children (table 41) then with boys' and girls' IQ separately (table 42). The insights gathered from these four different "assaults" at understanding the pattern of inequality emerging in the data are finally summarized and discussed in a concluding paragraph of the chapter, before we go on to corresponding analyses of inequality in childrens' school performance.

6.2 Structure and Use of the WISC in the present study

IQ of children in the present study is measured by the Wechsler Intelligence Scale for Children which has been adapted and restandardized for Icelandic children on the present sample (Hannibalsson and Bergsson, 1971)[1]. For this reason the mean IQ of children is about 100 (total sample, sexes separated,age groups separated) with a standard deviation of about 15 IQ points.

The Wechsler scale is divided into two subscales, a verbal scale and a performance scale, which thus yield a verbal IQ and a performance IQ.An IQ for both scales together is then computed on the basis of the subscale measures. This latter IQ measure is mainly used in the present analyses although verbal and performance measures are sometimes reported when relevant differences appear between these two subscales.

The basic tables comparing fathers' occupational class and IQ of children are so constructed that an interval corresponding to one standard deviation around the mean (90-104) is defined as "average IQ". On both sides of the average one standard deviation above represents the "high" (100-119) and one standard deviation below represents the "slow" (75-89). Then the extremes below and above these intervals (the "superior"and the "very retarded") spanning two standard deviations each were collapsed into one group each for practical reasons as very few individuals were found in the third standard deviation above or below average (six in the IQ interval 45-59 and five in the IQ interval 135-149).

In addition to these basic divisions, another, more simplified division into IQ categories is sometimes used. This division roughly corresponds to a conventional sense division of intelligence used in educational practice as encountered in actual social contexts. This division of a "socially defined school intelligence" roughly corresponds to the following three groups: First, intelligence commonly held to be required for success in higher secondary and academic educational levels (IQ 110-149); second, intelligence "required" for lower secondary and most vocational schooling (IQ 90-109); finally basic intelligence required for elementary schooling (75-89)[2].

1 See above, p. 7, for an account of the standardization procedure.

2 31 children out of 1090 were below this limit (45-74); 25 of whom were in the IQ range 60-74. These children were generally unable to participate in regular elementary education and needed special care. However, it should be mentioned that institutionalized children were not included in the sample.

6.3 Occupational Class and IQ

According to Tyler "the relationship of measured intelligence to socio-economic level" is one of the best documented findings in mental test history (1965 p. 336). Our data are no exception to this rule. As may be expected, table 29 shows a general increase in mean IQ from the lowest to the highest occupational class for both sexes. There is one notable exception, however, reaffirming once more a pervasive pattern in our findings: class 5 children with a mean IQ of 100.3 step out of the "expected" order and range next to class two.

Table 29: Mean Wechsler IQ of Children of Both Sexes by Occupational Class of Father

Occupational class of father	IQ N	boys	girls	both sexes
1	IQ	95.9	96.9	96.4
	N	(146)	(142)	(288)
2	IQ	99.7	98.4	99.0
	N	(166)	(172)	(338)
3	IQ	103.3	101.6	102.4
	N	(57)	(53)	(110)
4	IQ	105.9	103.2	104.5
	N	(79)	(82)	(161)
5	IQ	98.4	101.7	100.3
	N	(47)	(62)	(109)
6	IQ	111.6	105.0	108.8
	N	(48)	(35)	(83)

t-ratios and significance levels:

a) between classes, within sex

class	2	3	4	5	6
	boys				
1	2.621**	3.887**	5.205**	1.169	7.631**
2		1.866	3.282**	0.605	5.741**
3			1.105	2.055*	3.759**
4				2.738**	2.138*
5					5.126**
	girls				
1	1.003	2.142*	3.407**	2.243*	3.150**
2		1.567	2.797**	1.659	2.757**
3			0.707	0.037	1.154
4				0.659	0.680
5					1.085

* $p < 0.05$.
** $p < 0.01$.

b) between sexes, within class:
The only, within-class difference between sexes to reach statistical significance is class 6, $p < 0.05$.

Analysis of variance yields the following F-ratios and significance levels:

boys:	F = 14.48	$p < 0.01$
girls:	F = 21.290	$p < 0.01$
both sexes:	F = 16.47	$p < 0.01$

Table 30: Mean IQ Differences between Boys and Girls by Occupational Class of Father. IQ Points of Boys above (+) or below (–) Girls

Occupational class of father	1	2	3	4	5	6
Mean IQ differences between boys and girls	–0.4	+1.4	+2.1	+2.3	–3.2	+6.6*

* $p < 0.05$.

The difference in mean IQ between the lowest and the highest group represents 12.6 points (or just below one standard deviation) on the Wechsler scale for both sexes, 8.6 points for girls and 15.6 points for boys[3]. Anastasi (1958, p. 517) reports that "in general there seems to be a difference of about 20 points between the mean IQ of the children of professional men and those of the children of unskilled laborers." Anasti's reference to measured differences along the social class continuum in the standardization study of the Wechsler Intelligence Scale for Children (Seashore, Wesman and Doppelt, 1950) is of special relevance to us.

In this study, the difference between mean IQs for children of professional and semi-professional men and those of urban and rural laborers and farm foremen proved to be 16.3 points on the WISC, less than 4 points more than in our sample. An early Icelandic study of intelligence in children, based on the standardization of the Terman-Merrill Scale (Jónasson, 1956) found a very similar difference between highest and lowest occupational groups as defined by him (13.9 points).

Let us return for a moment to the difference in IQ between the sexes.

The difference between the mean IQs of each sex in the lowest and the highest class amounts to 7 points — about half of the total difference. Generally speaking, boys excel girls in mean IQ, very slightly at the lower end of the occupational scale, but markedly in the highest occupational class. There is a monotonic increase in this between-sex difference from class to class — again with the notable exception of class 5, where the relationship is reversed, these boys' intelligence ranging between occupational classes 1 and 2, whereas the girls' ranges above that of class 3.

Not only is the difference in IQ between class 6 boys and other groups more sizeable than between any of the other groups (as table 29 has shown) but the difference between the sexes' intelligence appears more marked than in any other group. The general relative depression of girls' measured intelligence as compared to boys' and the particular depression of class 5 boys' intelligence as compared to girls' and the consistent pattern of class 5 stepping out of otherwise consistent class patterns raise important questions about social-cultural influences on the socialization of cognitive functions in different groups, questions presumably at variance with a genetic model of IQ differences (Jensen, 1969, 1973; Deutsch, Katz and Jensen, 1968).

As outlined in the previous paragraph, in order to explore these differences more deeply, we shall consecutively present data on the social class contribution to different IQ ranges, then on sex differences in these contributions and finally, on the part that different aspects of intelligence — verbal and performance — play in these differences.

Table 31 shows the distribution of individuals of each class over the IQ range (row percentages). Read columnwise, the table shows the rank order, according to which each class contributes its individuals to each IQ category, as well as the modal IQ category for each class. The column total (average percentages across classes for a given IQ range) may serve as a criterion against which the "contributions" of each class to that IQ range can be assessed. A pattern of monotonous increase from low to high occupational class clearly emerges — again with the expected exception of class 5: Thus, for the highest IQ range, class 5 clearly ranges with the two lowest occupational classes, with class 3 ranging a little above it, class 4 producing more than double, class 6 almost four times as great a relative contribution to the highest IQ category. A similar rank order holds for the second highest IQ group, with class 5 now ranging one position higher than before. While this is the modal position of classes 4 and 6, the "average" IQ range is modal for the remaining groups, class 3 locating roughly half of its children there. In the "slow" range the

3 Thus, whereas the difference for boys is equal to about one sigma, for girls it is only roughly half this size.

Table 31: Children's IQ Ranges by Occupational Class of Father (Wechsler Full Scale; Both Sexes)

Occupational class of father	% – (N)	IQ ranges 45–74	75–89	90–104	105–119	120–149	total
1	%	3.5	26.4	45.1	20.8	4.2	100
	(N)	(10)	(76)	(130)	(60)	(12)	(288)
2	%	3.3	19.5	43.8	28.4	5.0	100
	(N)	(11)	(66)	(148)	(96)	(17)	(338)
3	%	1.8	9.1	50.9	30.0	8.2	100
	(N)	(2)	(10)	(56)	(33)	(9)	(110)
4	%	0.6	13.7	33.5	37.9	14.3	100
	(N)	(1)	(22)	(54)	(61)	(23)	(161)
5	%	4.6	14.7	42.2	32.1	6.4	100
	(N)	(5)	(16)	(46)	(35)	(7)	(109)
6	%	2.4	3.6	26.2	45.2	22.6	100
	(N)	(2)	(3)	(22)	(38)	(19)	(84)
T	%	2.8	17.7	41.8	29.6	8.0	100
	(N)	(31)	(193)	(456)	(323)	(87)	(1.090)

chi^2 = 103.26 C = 0.31
df = 20 max. value of C = 0.894
p < 0.001

rank order is rather exactly the reverse of the "superior" one: decreasing from well above one fourth of class 1 children falling within this category, to a bare fifth of skilled workers' children to below one sixth of the entrepreneurial, and somewhat unexpectedly, class 4 children following closely behind. This, however, may partly be due to the fact that children falling within the very lowest range are almost nonexistent in that group, presumably because of the consistent care they receive. In other words, class 4, through superior opportunities for care, will nurture very low IQ children such that they achieve relatively better competence as expressed by their passing from a subnormal to low yet normal intelligence level.

Table 32: Children in Different IQ Ranges by Occupational Class of Father (in %)

Occupational class of father	IQ ranges 45–74 %	75–89 %	90–104 %	105–119 %	120–149 %	total %	(N)
1	32.3	39.4	28.5	18.6	13.8	26.4	(288)
2	35.5	34.2	32.5	29.7	19.5	31.0	(338)
3	6.5	5.2	12.3	10.2	10.3	10.1	(110)
4	3.2	11.4	11.8	18.9	26.4	14.8	(161)
5	16.1	8.3	10.1	10.8	8.0	10.0	(109)
6	6.5	1.6	4.8	11.8	21.8	7.7	(84)
T	100	100	100	100	100	100	(1.090)
(N)	(31)	(193)	(456)	(323)	(87)	(1.090)	.
% in each IQ range	2.8	17.8	41.8	21.6	8.0	100	.

chi^2 = 103.277 C = 0.30
df = 20 max. value of C = 0.894
p < 0.001

Table 33: Distribution of "Low IQ" and "High IQ" Children by Occupational Class of Father (in %)

Occupational class of father	1	2	3	4	5	6
Children in IQ range 45–89	29.9	22.7	10.9	14.3	19.3	6.0
Children in IQ range 110–149*	15.6	18.3	27.3	34.8	23.8	50.0

Critical ratios and significance levels of high and low IQ children for each class:

class 1	CR 1.946	$p < 0.05$	class 4	CR 2.117	$p < 0.025$
class 2	CR 0.642	$p < 0.10$	class 5	CR 0.375	p ns
class 3	CR 1.352	p ns	class 6	CR 3.352	$p < 0.001$

* Reasons for this "educationally defined" intelligence range are given above p. 93. The range used here is commonly held to be required for success in higher secondary and acedemic educational institutions.

Therefore, in order to assess the class-related distribution of children in the lower IQ ranges, combining the two lowest ranges into one may yield a more adequate picture (see table 33 below).Table 32 presents another aspect of this relationship: the "relative contribution" of each occupational class to the different IQ ranges as compared to the expected frequency based on its proportion in the sample. As before these relative contributions may also be compared to the fraction of the total sample located in each IQ category (bottom row). The overrepresentation of the lower classes in the lower part of the IQ distribution, and conversely, the overrepresentation of higher classes in the upper ranges is a very salient feature of the table. But equally salient is the unequal distribution of the individual IQ ranges over classes.

A reclassification of IQ according to educationally defined intelligence requirements[4] (table 33) yields very much the same picture. In the "high" range (110-149) class 5 children come third (after class 1 and 2), with less than half the relative contribution to this IQ range than has the socially adjacent class 6. In the "average" range (90-109) class 5 children range between classes 1 and 2, far below their ordinal rank on the status scale. In the low range class 5 occupies a middle position on the scale, yet it is closer to the two lowest classes than to those above it in mean IQ. Thus throughout the distribution, we find class 5 rather consistently aligned with the lowest groups. This holds true, also, if its representation in different IQ ranges is tested against the mean class representation in these IQ groupings. Only once the entrepreneurial group comes slightly above the mean.

When differences between classes in IQ are tested with the chi^2 method, 11 out of 15 contrasts reveal significant differences[5]. Not significant are the contrasts between classes 1 and 2 ($p \leqslant 0.30$), 2 and 3 ($p \leqslant 0.10$), 2 and 5 ($p \leqslant 0.70$) and 3 and 5 ($p \leqslant 0.50$). Further, although as reported significances at the 5 per cent level may be considered to be below the level of statistical significance required in pairwise chi^2 analyses, at least all contrasts *between* "high" class and "low" are highly significant, with class 5 going with the "low" group, whereas contrasts *within* the group of higher or lower classes are more or less non-significant. With regard to the variable under study, they show a considerable degree of homogeneity. The details are as follows: The contrast between the IQs of skilled versus clerical workers' children is approaching significance, the remaining contrasts indicate that the entrepreneurial group, the skilled and the clerical groups do not belong to different populations. Thus in general we find a marked exception from the monotonic pattern that studies of the relation between social class and intelligence generally reveal (Anastasi, 1958; Deutsch, Katz and Jensen, 1968; Tyler, 1965). Classes 1 and 2, as the chi^2 analysis shows, do not differ from each other and class 5 closely follows them, although less poor and more high IQs are observed among its members. It does seem difficult to account for this apparent contradiction

4 For the rationale for this IQ classification see above, p. 93.

5 The probabilities are as follows for the individual contrasts:
$p < 0.05$ for contrasts 1 : 5, 3 : 4, 4 : 5, 4 : 6;
$p < 0.01$ for contrast 1 : 3;
$p < 0.001$ for the remaining six contrasts.
See above p. 83,table 27a, note * for the justification of the use of chi^2 analyses of contrast pairs in spite of the attenuation of significance levels.

between class affiliation of family and IQ by genetic factors. We have seen that the social position of class 5 members can be traced to individual mobility and "success" more than to any other factor, and this social achievement usually appears as a correlate of IQ or vice versa. We shall return to the question later.

Summing up, classes 1 and 2 produce the greatest proportion of "low IQ" children in the sample, closely followed by class 5; class 6 produces relatively most children of high intelligence and absolutely as well as relatively by far the smallest number of children with low IQs. Class 4, structurally, comes closest to class 6, with a greater proportion of "average" IQs (around 50 per cent) and a somewhat greater proportion of "lows". Class 3, the unskilled clerical group, shows an interesting pattern with over 60 per cent "average" relatively few "low" and about one fourth "high" IQ children.

Wheras for the lower classes the distribution of IQ is skewed to the left, a dynamic is at work in occupational classes 3, 4 and 6 that skews the distribution to the right — away from the lower part of the distribution. In class 3 the pull seems more or less to end in the middle range, whereas in class 4 it appears to continue exerting its sway well into the upper levels of the distribution. By comparison, class 6 is much below its expected representation in the lower part of the distribution and has diminished its representation in the middle range to a bare fourth, while it carries almost one half of its population into the "bright" and almost one fourth into the "superior" range. Are there any cues in the data that allow us to get any closer to the forces at work behind the distributional surface?

6.4 Sex Differences in IQ

As mentioned above, girls' IQs generally are depressed as compared to boys', with a notable exception, however: class 5 and, to a lesser degree, class 1.
Inspection of table 34 reveals a marked difference between the representation of the sexes in the various IQ ranges. Thus, in the lowest IQ range, there are considerably fewer boys than girls, whereas in the highest IQ range boys are almost two times as frequent as girls. In the second highest group, however, girls are overrepresented.
These markedly differential IQ distributions for the sexes seem to call for an explanation that bears on different cognitive socialization patterns linked to different sex role expectations in the culture. Such expectations, moreover, appear to vary in strength according to occupational class and to influence the higher IQ ranges more than the average or lower ranges. Classes 2, 4 and 6, which require specified, if different, exposure to formal education and specified educational certifications, show evidence in the "superior" IQ range of pressure for male cognitive performance. In these groups, girls appear to compensate the boys' excellence by overrepresentation in the less prominent, yet still "acceptable" second highest IQ group. The culture thus seems to benefit the sexes differently in the upper IQ levels such that "good" IQ in girls is allowed to unfold naturally, as it were, up to a point, but without the special motivational push perhaps needed for outstanding performance. This appears to be a special male prerogative or predicament. Class privilege thus benefits boys more than girls. On the other hand, in class 3 this relation is reversed — perhaps an effect of a particularity in the sample: more female heads of family (single or widowed working mothers) are found in the unskilled clerical group. Possibly in female dyads of this kind high identification of girls with mothers and high aspiration of mothers for girls obtain; this, obviously, is only a matter of speculation this far. Lastly, in the working class, girls are consistently if not conspicuously overrepresented at the upper IQ levels. The rather massive representation of children of working class origin in the low IQ range suggests a possible deficit in cognitive arousal, which may be due to a lack of sustained interaction between children and parents; interaction deficits possibly affect

Table 34: Boys and Girls in Different IQ Ranges by Occupational Class of Father (in %). Wechsler, Full Scale

Occupational class of father	boys – girls	IQ ranges 45–74	75–89	90–104	105–119	120–149	total
1	b	3.4	28.3	46.2	19.3	2.8	100
	g	3.5	24.5	44.0	22.4	5.6	100
2	b	2.4	19.8	44.3	25.7	7.8	100
	g	4.1	19.3	43.3	31.0	2.3	100
3	b	1.8	7.0	50.9	33.3	7.0	100
	g	1.9	11.3	50.9	26.4	9.5	100
4	b	1.3	11.4	32.9	34.2	20.2	100
	g	0	15.9	34.1	41.5	8.5	100
5	b	2.1	21.3	44.7	25.5	6.4	100
	g	6.5	9.7	40.3	37.1	6.4	100
6	b	0	2.1	26.5	36.7	34.7	100
	g	5.7	5.7	25.7	57.2	5.7	100
T	b	2.2	18.0	42.3	27.0	10.5	100
	g	3.5	17.4	41.4	32.2	5.5	100

boys: $chi^2 = 83.35$
df = 20
$p < 0.001$
C = 0.36
max. value of C = 0.894

girls: $chi^2 = 41.77$
df = 20
$p < 0.01$
C = 0.26
max. value of C = 0.894

Table 35: Differences between Percentages of Boys and Girls in the Two Highest IQ Ranges by Occupational Class of Father. Percentages Points of Boys above (+) or below (–) Girls.

Occupational class of father	1	2	3	4	5	6
IQ range 120–149	–2.8	+5.5*	–2.5	+11.7	±0.0	+29.0**
IQ range 105–119	–3.1	–5.3	+6.9	–7.3	–11.6	–20.5

Critical ratios *between sexes*, within class and IQ range:

* CR 2.076 $p < 0.05$
** CR 2.860 $p < 0.01$

Critical ratios *between IQ levels*, within classes:

class 1: CR 0.57 ns
class 2: CR 1.805 $p < 0.05$
class 3: CR 1.372 ns
class 4: CR 2.539 $p < 0.01$
class 5: CR 2.143 $p < 0.025$
class 6: CR 4.024 $p < 0.0005$

boys harder than girls in the higher IQ ranges, whereas the contrary may be true in the lower IQ ranges, leading to an overrepresentation of boys in this part of the distribution. This clearly is true also for class 5 boys, whose relative frequency in the "slow" group approaches that of class 1 boys — the most "deprived" group[6]. We are led to hypothesize that sex-specific socialization practices, sex-specific role expectations and interaction norms must be specific to different subcultures (as tapped by class in our investigation) so that, conversely, the workings of class will not be adaquately understood unless subcultural or class-related sex roles and sex-role dependent norms, expectations and evaluations are included in the analysis of class.

6 These relationships are borne out by chi^2 analysis of contrasts. Contrasts of occupational classes generally yield significant chi^2s between higher and lower groups (1, 2, 3, and 5 versus 4 and 6 respectively) within each sex, yet stronger for boys ($p < 0.01$ to 0.001) than for girls ($p < 0.10$) for the contrasts between classes 4 and 6, 2 and 3, 1 and 5. The contrast between classes 2 and 6, and 1 and 4 are significant on the 2 per cent level, between classes 3 and 6, and 2 and 4 on the 5 per cent level for females. Only the contrast between the extremes: class 1 and 6 yields a chi^2 with a higher significance level, $p < 0.001$. It is noteworthy that for girls the contrasts between classes 1 and 5 is almost significant ($p < 0.10$) whereas for boys no significant contrast is obtained, as usual. Contrasts between sexes *within* class, however, are significant only in class 6: chi^2 13.06, df 4, $p < 0.02$. Once more we call attention to the fact that significance levels are attenuated in pairwise tests of conctrasts.

6.5 Differences in Verbal and Perfomance IQ

The difference in measured intelligence found between occupational classes and the sex effects discovered to interact with the class differentials calls for further exploration of the effects of the structural aspects of intelligence as these are reflected in the Wechsler scale: verbal versus performance aspects of intelligence.

Table 36 demonstrates a largely similar distribution of verbal and of perfomance IQ over the occupational classes with a monotonic, almost parallel increase from class to class in the two highest intelligence levels (105 - 149) for both intelligence factors. Only class 5 makes the usual exception. Whatever difference there is slightly favors *verbal* intelligence in the "educationally based" occupational classes 2 and 6, and, to lesser extent 4, wheras classes 1 and 3 show no difference between verbal and performance IQ. Conversely, therefore, in the *performance* scale the monotonic increase — contrary to the rule — is *not* interrupted in the second highest IQ category for this group. This is one of the few exceptions where class 5 maintains its ordinal position on any variable. Very much the same picture holds true for the lower end of the IQ distribution.

The picture changes when we consider the verbal versus performance IQ in each sex separately. Tables 37 and 38 show the sex-specific distributions of verbal and performance IQs by occupational class of fathers. Let us consider verbal intelligence first. In the highest intelligence category, in classes 2, 4 and 6 — the occupational classes with formal educational requirements — a rather massive difference appears in favor of boys, doubling or even trebling boys' representation in this IQ range as compared to girls'. In the remaining three classes, the difference is either negligible, or, in class 5, the trend is reversed, with verbal intelligence repressed below that of the girls.

Taking the two highest and the two levels below "average" IQ together, the relative differences, within class, between the sexes in different verbal and performance IQ ranges can be studied in table 39.

Table 36: Children in Different Verbal and Performance IQ Ranges by Occupational class of Father (in %)

Occupational class of father	IQ ranges 45–74	75–89	90–104	105–119	120–149	T
	verbal IQ					
1	4.2	27.8	39.2	22.2	6.6	100
2	3.3	17.7	41.1	30.2	7.7	100
3	1.8	18.2	39.1	30.0	10.9	100
4	1.9	14.9	36.0	29.8	17.4	100
5	3.7	18.4	41.3	26.6	10.0	100
6	2.4	3.6	30.9	40.5	22.6	100
T	3.1	19.0	38.9	28.4	10.6	100
	performance IQ					
1	4.5	27.8	38.9	24.3	4.5	100
2	2.7	21.6	43.2	26.0	6.5	100
3	0.9	13.6	45.5	30.0	10.0	100
4	2.5	14.9	36.0	31.7	14.9	100
5	3.7	11.0	43.1	32.1	10.1	100
6	3.6	4.8	34.5	38.1	19.0	100
T	3.1	19.1	40.6	28.3	8.9	100

verbal IQ ranges:

$chi^2 = 63.52$
df = 20
$p < 0.001$
C = 0.23
max. value of C = 0.894

performance IQ ranges:

$chi^2 = 67.08$
df = 20
$p < 0.001$
C = 0.24
max. value of C = 0.894

Table 37: Boys and Girls in Different Verbal IQ Ranges by Occupational Class of Father (in %)

Occupational class of father	boys – girls	verbal IQ ranges 45–74	75–89	90–104	105–119	120–149	total
1	b	4.2	25.7	39.6	24.3	6.2	100
	g	4.2	29.9	38.9	20.1	6.9	100
2	b	2.4	17.5	39.8	30.1	10.2	100
	g	4.1	18.0	42.5	30.2	5.2	100
3	b	1.8	14.3	41.1	30.3	12.5	100
	g	1.9	22.2	37.0	29.6	9.3	100
4	b	3.9	6.4	41.0	26.9	21.8	100
	g	0	22.9	31.3	32.5	13.3	100
5	b	2.2	23.9	39.1	26.1	8.7	100
	g	4.8	14.3	42.9	26.9	11.1	100
6	b	0	0	31.2	37.6	31.2	100
	g	5.6	8.3	30.6	44.4	11.1	100
T	b	2.8	16.7	39.2	28.5	12.8	100
	g	3.5	21.2	38.6	28.4	8.3	100

boys: $chi^2 = 52.05$, df = 20, $p < 0.001$, C = 0.30, max. value of C = 0.894

girls: $chi^2 = 30.66$, df = 20, $p < 0.10$, C = 0.22, max. value of C = 0.894

Table 38: Boys and Girls in Different Performance IQ Ranges by Occupational Class of Father (in %)

Occupational class of father	boys – girls	performance IQ ranges 45–74	75–89	90–104	105–119	120–149	total
1	b	5.6	30.5	36.1	25.7	2.1	100
	g	3.5	25.0	41.7	22.9	6.9	100
2	b	3.0	20.5	41.6	29.5	5.4	100
	g	2.3	22.7	44.7	22.7	7.6	100
3	b	0	12.3	47.4	35.1	5.2	100
	g	1.9	15.1	43.4	24.5	15.1	100
4	b	2.6	14.1	35.9	29.5	17.9	100
	g	2.4	15.7	36.1	33.7	12.1	100
5	b	2.1	19.2	46.8	21.3	10.6	100
	g	4.8	4.8	40.3	40.3	9.8	100
6	b	2.1	6.3	31.2	41.7	18.7	100
	g	5.6	2.8	38.9	33.3	19.4	100
T	b	3.2	20.0	39.4	29.4	8.0	100
	g	3.1	18.2	41.6	27.3	9.8	100

boys: $chi^2 = 53.93$, df = 20, $p < 0.001$, C = 0.30, max. value of C = 0.894

girls: $chi^2 = 35.72$, df = 20, $p < 0.02$, C = 0.25, max. value of C = 0.894

Table 39: Differences between Percentages of Boys and Girls in Two Verbal and Two Performance IQ Ranges by Occupational Class of Father. Percentage points of Boys above (+) or below (–) Girls[a]

Occupational class of father	1	2	3	4	5	6
	verbal IQ					
IQ range 105–149	+3.5	+4.9	+3.9	+2.9*	–3.2	+13.3*
IQ range 75–104	–3.5	–3.2	–3.8	–6.8	+5.8	–7.7
	performance IQ					
IQ range 105–149	–2.0	+4.6	+0.7	+1.6	–19.2	+7.7
IQ range 75–104	–0.1	–5.3	+1.2	–1.8	+20.9	–4.2

[a] Chi^2 analysis of sex contrasts in *verbal* IQ within classes reveals significant differences between sexes in class 3 ($p < 0.01$), class 4 ($p < 0.01$) and class 6 ($p < 0.05$); *performance* IQ differences approach significance in class 5 ($p < 0.10$).

* t-ratios significant at the 5 % level.

The pattern described previously is revealed even more clearly by the figures of table 39: boys are generally underrepresented. In the lower IQ ranges the picture is clearly reversed, with girls overrepresented. Class 5, as usual, presents a clear exception from the prevailing pattern. Figure 10, showing the distribution of the verbal IQ for classes 1 and 6, serves to illustrate the cumulative class and sex handicap in verbal IQ. While figure 10 only represents the extremes, the verbal intelligence "handicap" of girls, respectively the verbal privilege of boys generally grows with class position[7] and reaches its peak in class 6.

Again, the structure of performance differences generally benefits the boys, as shown in the lower rows of table 39, although the difference is not as marked as for verbal IQ.

Classes 1 and 5 offer an exception from this rule, class 5 a very salient one: The size of the difference weighs the scales against class 5 children so considerably, especially if their previously revealed verbal handicap is also taken into consideration, that a special social-cultural deprivation or a socialization handicap must be suspected to militate against the intellectual development of these children, notwithstanding the affluence and economic power of their families.

Chi^2 analyses of class contrasts within sex, across sex; within IQ factor, as well as across factors, well bear out the above pattern: The greatest number of significant contrasts (8 out of 15 possible) is produced between occupational classes for verbal IQ of boys. The analysis shows boys of classes 1, 2, 3 and 5 to be undistinguishable. Thus, as a salient result, with regard to *verbal* IQ class 5 goes with the lower classes. On the other hand, the number of significant contrasts for girls, paradoxically, is lower — a sign of the unfolding of boys' verbal intelligence, however differentially that may operate and however much the class handicap may exert its power. For the girls, the few significant contrasts (2 out of 15) testify to relative homogeneity of verbal intelligence. But this appears less as a sign of "equality of intelligence" across class barriers than of the equalizing restriction of its growth. Analogously, although *perfomance* IQ is generally less differentiated between classes than is verbal IQ, nevertheless it is more so for boys than for girls (7 significant contrasts for boys versus 4 for girls, the former more marked than the latter); the differential sex handicap appearing again in the tendency to restrict representation of girls in the higher IQ levels.[8]

The differential restriction of range of girls' intelligence is shown by yet another finding. In order to investigate more deeply possible effects of parental occupational class in conjunction with educational level on intelligence, the sample was divided into two quite strictly defined subsamples: a) Lower class: comprising all families where the head of the household engaged in unskilled or semiskilled manual work *and* both parents had elementary education only.b) Middle class: all other occupations with both parents having at least graduated from lower secondary education (10 years of schooling). This procedure

7 Again, with the typical exception of class 5 children for whom the trend is reversed.

8 See p. 83, table 27a, note * for a discussion of significance levels of chi^2 tests of pairwise contrasts.

Figure 10: Verbal IQ of Boys and Girls in Occupational Classes 1 and 6

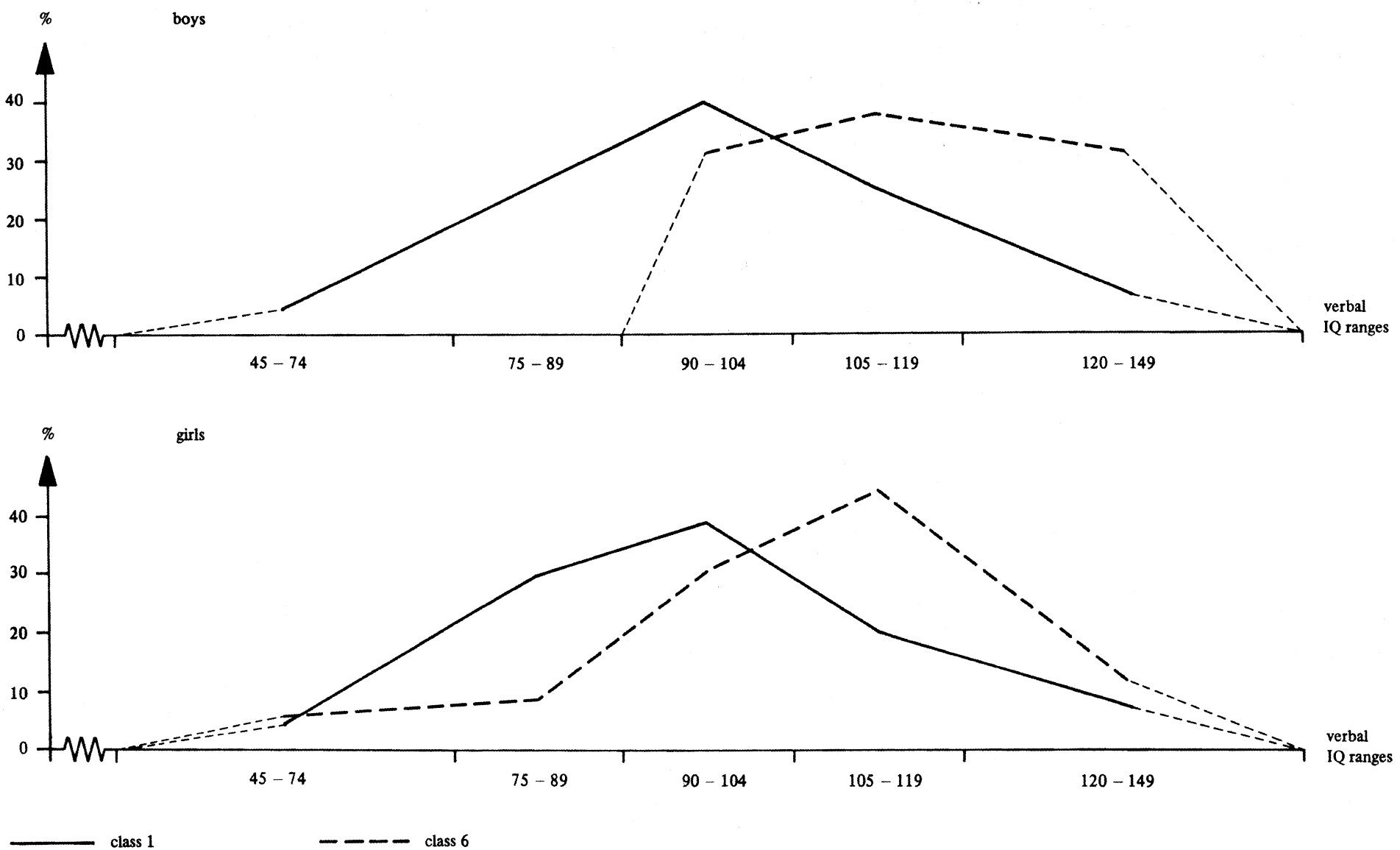


Table 40: Sex and Class Related Differences in Verbal and Performance IQ in Two Age Groups

Occupational class of father	boys – girls	age groups 5–9	10–15	difference between the two age groups
	verbal IQ			
Lower	b	92.3	98.8	+6.5*
	g	96.6	92.1	−4.5
Middle	b	104.5	112.6	+8.1**
	g	105.1	105.0	−0.1
	performance IQ			
Lower	b	93.3	96.7	+3.4
	g	94.8	97.7	+2.9
Middle	b	104.0	106.6	+2.6
	g	103.4	105.2	+1.8

* $t = 2.1563$ $p < 0.05$
** $t = 2.7433$ $p < 0.01$

reduced the children's sample to N = 376. The sample was then divided into two age groups — younger children (5-9 years old) and older (10-15 years old). The IQs of children in this subsample were then crosstabulated according to the three dichotomous variables, sex, class and age.

The comparison of the mean IQ's for both age groups shows that there is a significant increase of boys' verbal IQ with age, and that the increase has a significant class bias, with a clear advantage for middle class boys. We interpret this finding to indicate that notwithstanding class differentials in cogitive opportunity, the modal experience of boys in childhoad and adolescence leads to sizeable gains in cognitive performance such that they become visible in measured IQ. The experience of schooling may speculatively be held to contribute to these gains. Conversely, the data may be taken to demonstrate *first*, a growing restriction of verbal IQ with age in lower class girls; *second*, stagnation in middle class girls' verbal IQ relative to boys'. *Third*, it should be noted that both growth and decline start from differentially advantaged bases, as the previous analyses of class differences in IQ have already shown. Discrepancy in IQ between classes grows with age: from 12.2 IQ points for the younger girls to 13.8 points for the older girls; form 8.5 IQ points for the younger boys to 12.9 for the older ones.

Performance IQ tells a different story: although we find a very similar class bias in IQ to the disadvantage of the lower class for both sexes and both age groups, there is a similar, if moderate growth between ages for all groups, with no discrepancy between sexes appearing with age as was the case for verbal IQ. The discrepancy between classes, however, remains constant (difference between classes for younger girls: 8.6 IQ points, for older girls: 8.5 IQ points; for younger boys: 10.7 IQ points, for older boys: 9.9 IQ points).

Parenthetically, a remark concerning Jensen's critique of the cumulative deficit hypothesis is in order here. Jensen (1974) has recently attempted to prove cumulative deficit to be an unsubstantiated hypothesis, by leveling methodological criticsm at the design of studies which use or purport to validate the concept. The pattern present in our data, however, decidedly suggests that one look for cumulative deficit linked to class and sex, separately and combined. None of the artifacts that Jensen suspects in cross-sectional studies is present in our data[9]: neither attrition nor migration (differential turnover), nor family size increasing with age of subjects nor overagedness in older schoolclasses do indeed affect the sample. Neither is the hypothesis of specific reading disability that Jensen advances to explain decrements in verbal IQ borne out by the data. Also the fact that the middle class girls with better IQ and scholastic achievement are arrested in their IQ gains, as compared with boys, is not consistent with Jensen's explanations.

9 Methodologically, possible cohort differences should be separated from age differences.In the context of our data this is not possible. But cohort differences are most unlikely to explain the sex-specific decrement in IQ between the two age groups.

6.6 Education of Parents and IQ of Children

The relationship between occupational class and children's IQ has abundantly demonstrated that children in those classes which achieve social status through education (2, 4, 6) excel those to whom education is less relevant (1, 3, 5). This relationship is stronger for boys than for girls — and it is more so for verbal IQ than for performance IQ.

If it were predominantly the educational component in occupational class that is related to IQ levels in children we would expect a stronger relationship between the educational level of fathers and children's IQ than between occupational class and IQ. However, we should not expect these relationships to differ much, due to the close correspondence between education and occupation (C : 0.74, corresponding to r = 0.85; see the crosstabulation presented in table 14, p. 61). If the hypothesis were justified that intelligence partly be acquired through identification and interaction with father — and that it serves as a vehicle for social ascendency in a male-oriented culture, the difference in the effects of education and class — if any — should show in higher predictive power of education for boys. These expectancies are not borne out by our data, which by and large replicate the findings reported earlier (see tables 41 and 42 and compare with tables 31 and 32).

The tables show class and education effects to be wellnigh indistinguishable. Yet, hypotheses concerning the effects of socialization on intellectual development as mediated by educational experience of the socializing parent are not refuted by this finding. Various reasons can be given to account for the lack of visible effects in our data. The data may not be sensitive enough. Education is only classified into four levels, mostly by years of exposure to schooling (see p. 58 for definitions). Neither educational "experience" as a subjectively meaningful category nor curricular orientations of different educational sectors are taken into account. IQ, though broadly used, may prove too gross an indicator when trying to measure particular socializing influences, such as may derive from the educational world of parents. A broader cognitive assessment, a more interactionally based measure of parental influences and a collection of data from younger children would offer a fuller picture of the relationship between educationally based attitudes of parents and children's intellectual development. Below we shall briefly direct our attention to the child rearing attitudes of mothers. The class-related differences in their child rearing patterns give hints as to the type of interaction between class, education and socialization practices that we may expect to have far-reaching effects on the cognitive and affective development of the child. However, an exploration of these interrelated effects is beyond the scope of the present report.

Table 41: Children in Different IQ Ranges by Educational Attainment of Father. Wechsler, Full Scale

Educational level of father	% – (N)	IQ ranges 45–74	75–89	90–104	105–119	120–149	total
1	%	4.4	25.5	46.6	20.5	3.0	100
	(N)	16	93	170	75	11	365
2	%	2.8	18.7	43.6	28.6	6.2	100
	(N)	10	66	154	101	22	353
3	%	1.8	11.0	38.5	39.4	9.2	100
	(N)	4	24	84	86	20	218
4	%	2.0	5.1	27.3	41.4	24.2	100
	(N)	2	5	27	41	24	99
T	%	3.1	18.2	42.0	29.3	7.4	100
	(N)	32	188	435	303	77	1.035

chi^2 = 108.57
df = 12
p < 0.001
C = 0.31
max. value of C = 0.866

Table 42: Boys and Girls in Different IQ Ranges by Educational Attainment of Father (in %). Wechsler, Full Scale

Educational level of father	boys – girls	IQ ranges 45–74	75–89	90–104	105–119	120–149	total
1	b	3.4	25.8	46.1	21.9	2.8	100
	g	5.4	25.1	47.1	19.2	3.2	100
2	b	2.2	20.3	46.2	22.5	8.8	100
	g	3.5	17.0	41.0	35.0	3.5	100
3	b	2.0	10.2	39.8	35.7	12.3	100
	g	1.7	11.7	37.5	42.4	6.7	100
4	b	0.0	3.9	25.5	37.3	33.3	100
	g	4.2	6.2	29.2	45.8	14.6	100
T	b	2.4	18.7	42.8	26.3	9.8	100
	g	3.8	17.7	41.3	32.1	5.1	100

boys: $chi^2 = 67.92$
df = 12
$p < 0.001$
C = 0.34
max. value of C = 0.866

girls: $chi^2 = 46.35$
df = 12
$p < 0.001$
C = 0.28
max. value of C = 0.866

6.7 Discussion and Summary

The general pattern of the intelligence data, with lower IQs overrepresented in the lower strata and higher IQs in the upper, appears consistent both with a genetic theory of intelligence, and a therory stressing "environmental" effects. Whereas the former considers that "social classes can be profitably construed as Mendelian populations that have diverged genetically and are continuing to do so" (Gottesman, 1968, p. 40), the latter is much more divided in the theoretical reconstruction of individual differences (or, rather, differences between collectives) and unified only in the view that social classes can *not* be profitably construed as Mendelian populations. It seems that a geneticist perspective is difficult to accommodate to our data for a number of reasons: nonlinear class effects, pervasive but differential sex effects, systematic yet differential effects of class and sex on verbal versus performance IQ, regression in girls' verbal, but not performance IQ over age. What type of theory or theories, then, is needed to account for both class-specific restriction of intelligence growth, differential restriction of verbal (as against performance) IQ, and stronger still, differential restriction of female (as against male) verbal intelligence (or, alternatively, differential stimulation of male intellectual predominance)? Apparently, both the socialization of cognitive functions, the moulding of sex roles and, last but not least, educational and training effects are responsible, singly and in interaction.

Bernstein (1965, 1971 a, 1971 b) has argued that lower class culture is generally low in cognitive, especially linguistic stimulation, centered around concrete performance and particularistic orientations. Bernstein's (1972) later Labovian reformulations of code theory, stipulating expressive "equality" of universalistic and particularistic codes has been aptly discussed, and put into an evolutionary perspective by Oevermann (1973, 1974), who convincingly argues that in a unversalistic culture a particularistic code, whatever its expressive merits, does mean real underprivilege or deprivation and restricted access to the cognitive content of the culture. In our data we have evidence of an even more general restriction of cognitive development for girls within and across classes, by greater restrictions of their verbal IQs. In order to explain this, one has to transcend the subcultural formulations of Bernstein's theory, first perhaps in the direction of Bourdieu's (1964) theory of institutionally mediated cumulative handicap, adding class effects to sex effects and school effects to the product of their interaction. And second, to repeat a statement uttered several times before, one has to adopt an interactionist perspective on socialization which purports to explain variations in cognitive functioning through the effect of cognitive and affective structures of socializatory interaction specific to given social settings. Thus an interactionist theory of socialization making use of the work and action characteristics of class-specific milieus might explain the difference in symbolic functioning between children, say, of manual workers who appear restricted in the use of meaningful verbal communication in their work, and class 3 girls who are daughters of mothers working in the distributional sector of the economy, in jobs that call upon symbolic transactions with people and things. At the same time the affective and the motivational forces at work in these different settings will have to be studied if we are to understand the constitution of the class-specific performance rules for cognitive operations called upon in action.

An interactionist type of socialization theory thus will help to explain differential aspiration levels of parents of different social extraction for their children. Whereas, it seems, parents of class 1 show little evidence of high aspiration for their children, in classes 2, 4 and 6 the converse seems true, in different measure and along different educational paths. Gradually thereby a socially reproductive quality of education is achieved. Very much in contradiction to the extreme mobility opportunities the social system provided to the parental generation, the educational system now tends to be used for the stabilization of class position once it is established. The reproductive function of the educational system therefore is likely to gain ascendency over the mobility function it had within the framework of approximative equality of the opportunity structure, and independent of social origin. Class 5 children, born of highly upwards mobile and economically achieving parents, whose motivation has been activated most directly within the action system of economic rather than educational opportunity, will now have to use educational channels to serve parental aspirations for the conservation of status. However, with the low price on cognitive differentiation of action and, hypothetically, primacy of concrete usage and nonsymbolic performance, the socializatory prerequisites for the corresponding use of the school system are hardly at hand. These children, especially boys, appear doubly handicapped, because they labor under contradictory pressures: They are born of parents who have achieved high status, and therefore achievement pressure on them is likely to be high. Descending from rather uneducated families, with little in the way of a family history of cognitive achievement (or cognitively structured interaction rules prevailing in socializatory interaction) the cognitive stimulation to achieve educational goals appears rather limited. Paradoxically, the daughters do not suffer from the same achievement pressure as the sons. In consequence, for them, in this case, the general trend of class-specific underprivilege of girls relative to boys is reversed so that the boys' cognitive achievements fall below them as expressed by the verbal scores of the intelligence test.

In a culture which prizes verbal achievement verbal IQ must be considered a rather specific mirror of social factors affecting cognitive functioning, both through primary socialization and through the continuous effect of school. We shall now turn to the latter, reserving the former for the final section of this report.

7.
Class and School Achievement

7.1 An outline of the problem

In what follows we are going to pursue further our investigation of inequality patterns in the cognitive domain that began in the previous chapter. That chapter demonstrated, in essence, the rather close relationship that obtains between the class pattern as shown by the occupational structure and the pattern of cognitive performance as measured by a standardized intelligence test. We now proceed to analyse a further dimension of cognitive performance, school achievement. In a vast bulk of research literature, school success or educational achievement or attainment, represented by a great variety of measures (achievement test scores, observations or evalutaions), have been shown to be closely related to measures of social stratification, and a wealth of literature has discussed the nature of this relationship[1]. There is no reason to discuss this well-known literature here. Perhaps, it might even seem superfluous to some readers to add to this literature at all. Nevertheless, this appears desirable for the following reasons:

First, up to this time, there is no systematic information available in Iceland on the relationship between educational and social-structural data. Educational research proper has hardly begun. Therefore dates that can serve as baselines for further research are a needed contribution.

Second, educational policy is a topic of high priority in the political debate. However, the sources of information from which this debate can draw have been limited and unreliable. Policy relevant research findings in the field under study have been almost totally absent. Thus, research findings that are potentially relevant for policy and decision making processes should not be withheld.

Third, an argument more pertinent to the general intention of the present study is the following:A rather consistent picture of products and processes of intensive stratification dynamics in contemporary Iceland has emerged from the data. At the same time, the patterns produced by these processes, to some extent at least, appear to differ from what might have been expected on the basis of research in other countries. Therefore we cannot assume beforehand that the educational system and the achievements produced within it reproduce the patterns of differentiation between social strata which are so well known from educational research in other countries, both psychometric and sociological.

Fourth, this argument is further strenghtened by the fact that the stratification system in Iceland as it emerges from the data is a rather recent product of modernization and caught in a process of rapid ongoing change. It will be be remembered that an equalitarian ideology is prevalent with regard to many aspects of the society. Public opinion has long insisted on equality of educational opportunity as a guiding principle for the organization of the school system. Moreover, there are reasons to expect educational equalitarianism to be indeed supported by important characteristics of the educational system: On one side, the system is composed of a common non-differentiated elementary and lower secondary compulsory school for all (eight years of schooling at the time of data collection, nine years at present). The stratification effects produced by highly selective secondary school systems, streaming children as early as age 10 or 11 (as used to be the case in most if not all "developed" school systems in Europe) therefore would not be expected to obtain to the same extent in the Icelandic school system where children are streamed into different lines on a selective basis only after age 14 at the earliest and usually older. Another argument in line with this concerns the rather exceptional socio-ecological, demographic and residential homogeneity of living quarters in the city of Reykjavik. This has a double effect: very minor between-school differences in intake; and the representation of all social milieus in each and every school. During the time covered by the data the typical residential differences in school districts ("inner city versus suburban school") so salient in both the literature and the policy debate abroad was hardly in evidence in Reykjavik[2].

At the outset it thus appears as an open question what the function of the educational system is in the process of emerging social inequality: whether it is a countervailing force, whether it serves as a reinforcement to the powers of social differentiation or, lastly, whether it is only the mirror of these processes. Our data may help to cast some light on these problems.

1 See Halsey, Floud and Anderson, (1961). For individual regions or countries see for example the classical studies by Boalt and Husén (1968) for Sweden, and the recent discussions: Bowles and Gintis (1976) for the USA; Levin (1976) for Western Europe and Müller and Mayer (1976) for Germany.

2 There is some evidence of change in this pattern now, as a number of new residential quarters have been developed in the last decade, which have, for reasons too long to discuss here, proved much more stratified socially than the older quarters. Corresponding changes are now incipient, via horizontal mobility, in the older quarters. See also Reynarsson (1977).

7.2 Some Characteristics of the School System and the Data

The data on which the following analyses are based are a) grade point average (or mean of all grades) at graduation from primary school at age 12 plus; b) grade point average (or mean of all grades) at graduation from the upper primary level of the compulsory school at age 14 plus.
Hence the complexity of the measures used is much greater than, for example, that of intelligence test scores (whatever their complexity). There were no standardized achievement tests in use in the Icelandic school system at the time covered by the study. Grades are based on teacher-evaluated pupil performance during the school years and on performance in examination settings usually evaluated by teachers who are also the authors of the teacher-made written examination papers. By usual standards, one would expect high diversity in teacher evaluation, i.e. considerable variance between school classes and large amounts of variance in evaluations across subjects. We shall see below that the variance in grades is unusually restricted, teachers appear to use only a part of the available grade scale. Correspondingly, variances in the raw data have to be subjected to rather "fine" analyses. At the end of the period covered by the study, at graduation from compulsory school, four out of some 12 academic subjects (yielding five grades: Icelandic language and literature, Icelandic composition, Danish, English, Arithmetic) are being evaluated on the basis of exam papers given to all schools simultaneously[3]. It is a matter of debate whether the evaluations have become more valid through this procedure. At any rate it remained teacher-based and no effort seems ever to have been made during that period towards more psychometrically oriented procedures in view of increasing validity, reliability or objectivity of the examination. On the other hand, uniformity of teaching and evaluation may have been enhanced beyond expectation because of the very limited variety of textbooks produced by the State Textbook Publishing House up to that time, and due to the rather strict adherence of teachers to those books. The textbooks used therefore functioned quite normatively as the syllabus. Moreover, on the whole, a rather uniformly traditional mode of teaching prevailed, and almost all teachers are trained in the same teacher training institution. However, from what little is known about characteristics of school achievement in the primary school, the distribution of grades differs considerably from one subject to the next[4]. The decision to use a compound GPA, however problematic from various points of view, purported to minimize effects of idiosyncratic evaluations and chance variations between individual schools, classes and teachers in order to focus on main patterns or trends in the material.

3 At graduation from lower elementary, some 14 to 16 subjects are each given a final mark or grade. Grades range from zero to ten, with one decimal point for individual subjects (e.g. 7.8) and two for GPA. These grades are all compounded in the GPA, each subject-grade entering with the same weight such that GPA is the arithmetic mean of all grads. The same principle holds true for the graduation grades at age 14 plus. The GPA, thus, refers to the following curricular subdivisions:

curricular group	lower elementary number of subject/grades	upper elementary number of subjects/grades
Icelandic language and literature	3	2
foreign languages	–	2
arithmetic	1	1
sciences and humanities	4	7
non-academic skills	6	7–8
	14	19–20

4 Edelstein (1976), has analyzed school subject preferences and grade distributions in three (lowest) grades in a sample of Reykjavik schools in connection with the introduction of a curricular innovation. He found both consistent overall patterns and widely varying schoolspecific distributions in preference patterns, and, to a lesser extent, in evaluations of achievement (grades).

7.3 GPA at Graduation from Lower and Upper Elementary School

The data discussed up to this point all refer to the time of their collection in 1965 and 1966. The data on school achievement reported in this section refers to a much larger time span as they were being collected while the different age groups were moving through the school. Thus, whereas the oldest age group is born in 1950, and the youngest in 1960, the corresponding years of graduation from lower elementary school are 1962 through 1973. For graduation from upper elementary shool the corresponding years are 1965 through 1976. At the moment when the data reported in this section were tabulated,GPAs of only the youngest age group at graduation from upper elementary school is lacking. The findings reported here can therefore be considered to be a fairly valid description of certain aspects of the school system up to a very recent past. (For most recent changes in the school system see below p. 119, footnote 7). Below we shall also turn to a further recent set of data, final educational attainment in the oldest four age groups of the sample (p. 122 ss). The distribution of GPAs at the end of grade 6 and grade 8 is shown in table 43.

The distribution is highly skewed towards the higher end of the grade scale at the end of grade 6. Four fifths of the sample scores in the uppermost third of the scale (7.0 and above), two thirds between 7.0 and 9.0. As an expression of the schools' evaluation of the children's achievements, two aspects are of interest here: First, the high percentage of children achieving something like mastery of the schools' objectives at the end of grade 6. Second, the great change between the two evaluations. At graduation from elementary school, one half of the students score below, and one half above 7.0. Whereas, at the end of grade 6, only 7.5 per cent of the sample earns grades that are either defined by the system to be unsatisfactory (below 5.0) or generally considered unsatisfactory (below 6.0), at the end of the compulsory school this number has quadrupled. We know that changes in curricular content and especially in the discriminating functions of grades affect the distribution. At the end of the lower elementary section of the school there is no selective pressure on the children, while at the end of compulsory schooling the selective function of the different tracks of the secondary school into which children are going to be streamed is beginning to exert its sway. The question of interest, then, is whether the change in the distribution of grades affects the various social strata differentially. And if so, can the later pattern be spotted in the distribution at the prior stage in spite of its apparent homogeneity?

Obviously, the question of social differences in the distribution of mean grades can be investigated at least from two sides. We can look at the distribution of grades for each occupational class and compare them, both among themselves and to the overall distribution shown in table 43. Second, we can look at the distribution of each grade over occupational groups, the latter showing, as it were, the differential representation of each class in the various grade intervals.

The tables for lower and for upper elementary school both reveal ways of looking at highly significant differences between classes. For lower elementary school, this is almost astonishing in view of the fact that the modal grade lies in the interval between 8 and 9 in all classes. However, if we look at the highest interval (9-10), a monotonous increase in relative frequency according to class appears, with class 6 achieving more than four times the representation of classes 1 and 2 in the highest grade category and about double the representation of classes 3, 4 and 5. It is noteworthy that contrary to most previous findings in our study class 5 occupies the ordinal rank corresponding to its position in the assumed class hierarchy. The usual pattern is restored, once the two highest grade categories are combined (class 1 : 39.5 per cent; class 2 : 45 per cent; class 3 : 57 per cent; class 4 : 68 per cent; class 5 : 50 per cent; class 6 : 80 per

Table 43: Distribution of Children's "Mean-/-Grades" (GPA as Defined by School) at Graduation from Lower and Upper Elementary School (in %)

Age groups	Grade interval 0–4.9 %	5.0–5.9 %	6.0–6.9 %	7.0–7.9 %	8.0–8.9 %	9.0–10.0 %	total %	N
6th grade	1.3	6.2	12.3	28.8	39.5	11.9	100	1.042
8th grade	8.5	18.3	22.7	28.0	19.7	2.7	100	928*

* The smaller N in grade eight is due to the fact that the youngest age group in the sample had not yet graduated from compulsory school when the data were collected.

Table 44: Children's GPA at Graduation from Lower and Upper Elementary School by Occupational Class of Father

Occupational class of father	Grade interval 0–4.9 %	5.0–5.9 %	6.0–6.9 %	7.0–7.9 %	8.0–8.9 %	9.0–10.0 %	total %	N
	lower elementary							
1	2.9	9.0	18.7	29.9	32.7	6.8	100	278
2	1.2	5.6	12.8	35.5	37.7	7.2	100	321
3	0.0	6.7	8.6	27.6	42.8	14.3	100	105
4	0.7	1.3	7.1	22.7	52.6	15.6	100	154
5	0.0	8.6	13.3	26.7	34.3	17.1	100	105
6	0.0	5.1	1.3	13.9	48.1	31.6	100	79
T	1.3	6.2	12.3	28.8	39.5	11.9	100	1.042
	upper elementary							
1	16.0	23.5	25.9	25.1	8.8	0.8	100	251
2	7.4	17.5	27.7	29.8	16.1	1.4	100	285
3	7.0	21.0	17.0	25.0	28.0	2.0	100	100
4	3.9	12.5	18.8	28.9	30.5	5.5	100	128
5	5.3	20.2	18.1	34.0	20.2	2.1	100	94
6	1.4	5.7	12.9	25.7	42.9	11.4	100	70
T	8.5	18.3	22.7	28.0	19.7	2.7	100	928

lower elementary:
chi^2 = 111.14
df = 25
p < 0.001
C = 0.31
max. value of C = 0.913

upper elementary:
chi^2 = 127.18
df = 25
p < 0.001
C = 0.34
max. value of C = 0.913

cent). It is also restored, although in a reversed direction, when the distribution of the lower grade categories is considered, singly or combined, where class 1 is markedly overrepresented, with class 5 next to it. Thus the fact that class 5 occupies its ordinal position in the highest grade category is an *exception from the ordinary pattern*, and it is this fact that is in need of explanation. With some support from the data, particularly the IQ distribution, we may speculate that some class 5 children overachieve under "favorable" conditions (social, educational, and familial),a phenomenon that we shall return to when sex-specific and familial conditions of achievement are discussed in later sections.

In essence, we can conclude that to say the least the elementary school, even in its lower grades, is relatively powerless as a countervailing force against the stratification processes operating in the cognitive realm[5]. The trend towards growing discrimination among children according to class lines becomes clearer as we proceed to inspect the grade distribution at the end of the upper elementary school. While the overall modal grade lies in the interval between 7 and 8 (one interval below grade 6), the mode now is different for different occupational classes, contrary to grade 6: Modal grade increases by one interval from class 1 (6-6.9) to class 2 (7-7.9) to class 3 (8-8.9), to remain there for classes 4 and 6, and to drop again by one interval for class 5. The expected pattern of monotonous increase in relative frequency of

5 This is borne out by the statistical tests of pairwise contrasts between social classes: Chi^2s are significant for all contrasts except those between classes 2 and 3, 2 and 5 (p = 0.99), 3 and 4 and 3 and 5 (= 0.80). The contrast between classes 1 and 5 just reaches significance (p < 0.05), while the remaining contrasts ar significant at the 1 per cent or 1 per thousand level (class 1 with classes 4 and 6, and class 2 with class 6). The pattern of social stratification as shown by the previous data thus is confirmed by the achievement data that group together classes 1, 2 and 5 on one hand, and 4 and 6 on the other, with class 3 providing an intermediate and overlapping group. For the appropriateness of significance levels of chi^2 see above, table 27a, note *,p. 83.

high grades according to class is salient in the two highest grade categories, with class 5 entering into its usual position next to classes 1 and 2, far below its ordinal rank. This is also true for the distribution of low grades, although the pattern is less clear here than in the higher categories. Class 5 throughout follows the lowest two classes. It appears safe to conclude that, for whatever reasons, the discrimination between classes has become much more visible in the schools' evaluation of children's achievement as they leave the primary school. The data warrant the question, what is the function of school in the stratification process? Does it only mirror cognitive differences prevailing between classes from the outset, differences that become progressively more clear as schooling proceeds; or does the school contribute to class differences in the sense of cumulatively increasing a class handicap as a functional agency of growing inequality in the society?

In order to tentatively clarify this further, we shall try three different approaches. *First*, we shall look into the relative contribution of each class to each grade category (to what extent are grades, e.g. low or high, produced by the different classes). Whereas before we asked for the grade distribution for each class, we are now asking for the class composition of each grade interval. *Second*, we shall investigate sex-related differences in the distribution of grades. And *third*, we shall look into the relationship of IQ to grade. A differential relationship of IQ to grade by class must be taken to support the hypothesis that school contributes to a cumulative class handicap. However, a more complex pattern may emerge from all three approaches taken together.

7.4 The Contribution of Class to Grades

Table 45 presents the "class composition" of different grade categories at the end of the lower and upper levels of the elementary school.
The table should be read by comparing the contribution of the different occupational classes to a given grade category with their representation in the sample (right hand column) which functions as the "expected value" for each cell. If school achievement were not biased by social class, the figure in each cell of a line should match the expected value.
This obviously is not the case. Thus, at graduation from lower elementary school, class 1, whose contribution to any grade decreases as grades get higher, is markedly overrepresented in all grade intervals below 7 and underrepresented above 8. At graduation from upper elementary school, both overrepresentation in lower grade categories and underrepresentation in the higher ones increase, and more so towards the extremes. A markedly contrasting picture emerges from the class 6 data: underrepresented in all grade categories up to 8 in both sets of GPAs, class 6 is overrepresented in the two highest grade categories and much more so at the upper elementary level (barely three times the expected value at lower, four times the expected value at upper elementary graduation).
The general pattern of discrepancies from expected values and of their change between testing times appears quite clear. Starting from the extremes defined by the lowest and the highest groups (as described above), we find class 3 nearest to its expected value at the end of lower elementary school, but less so at the

Table 45: Children in Different GPA Ranges by Occupational Class of Father (in %)

Occupational class of father	Grade interval 0–4.9 %	5.0–5.9 %	6.0–6.9 %	7.0–7.9 %	8.0–8.9 %	9.0–10.0 %	T* %
	lower elementary						
1	61.5	38.5	40.6	27.7	22.1	15.3	26.7
2	30.8	27.7	32.0	38.0	29.4	18.5	30.8
3	0.0	10.8	7.0	9.7	10.9	12.1	10.1
4	7.7	3.1	8.6	11.7	19.7	19.4	14.8
5	0.0	13.8	10.9	9.3	8.7	14.5	10.1
6	0.0	6.2	0.8	3.7	9.2	20.2	7.6
T	100	100	100	100	100	100	100
T/N	13	65	128	300	412	124	1.042
	upper elementary						
1	50.6	34.7	30.8	24.2	12.0	8.0	27.0
2	26.6	29.4	37.4	32.7	25.1	16.0	30.7
3	8.9	12.4	8.1	9.6	15.3	8.0	10.8
4	6.3	9.4	11.4	14.2	21.3	28.0	13.8
5	6.3	11.8	8.1	12.3	9.8	8.0	10.1
6	1.3	2.4	4.3	6.9	16.4	32.0	7.5
T	100	100	100	100	100	100	100
T/N	79	170	211	260	183	25	928**

* T represents size of social class in sample and functions as "expected values".
** See table 43, note *, p. 113.

lower elementary:

chi^2 = 111.14
df = 25
p < 0.001
C = 0.31
max. value of C = 0.913

upper elementary:

chi^2 = 127.18
df = 25
p < 0.001
C = 0.34
max. value of C = 0.913

upper level. Class 3 thus provides a kind of match between expected and observed values. This correspondence decreases towards both extremes, and between testing times. Classes 2 and 5 can be described by reference to the pattern provided by class 3: they approach it somewhat, but in different ways. At graduation from the lower level, class 2 is quite close to expectancy at the lower end of the scale, as well as in the second highest interval; it is above expectancy in the interval between 7 and 8, and below in the highest interval. Class 5 is close to expectancy in the middle range, and above expectancy at both ends. (the "overachievers" mentioned earlier at the high end.) At the end of upper elementary school, class 2 reproduces the previous pattern with minor modifications, the interval exceeding expectancy travelling downwards thus showing an increase in class bias. Class 5 shows an equalization of the distribution relative to the expected value, and thus becomes more similar to the lower class patterns described above. In particular, the "overachievers" have now disappeared and the contribution to the lowest category has increased. Class 4 produces a pattern very similar to class 6, above expectancy in the two highest categories (although quite unequally so) and below expectancy in the grade categories below (at the end of upper elementary), again quite unequally so.

Thus the class bias is clearly demonstrated by a pattern of increasing discrepancies from expected values, by class and over time. Lower class pupils produce both absolutely and relatively most "low" GPAs whereas higher class pupils produce most "high" GPAs absolutely and by far most relatively. Class 6 exceeds expectancy four times, *and* four times the absolute contribution of class 1 children to the highest category at the end of upper elementary school but barely exceeded threefold expectancy and only contributed one fourth more absolutely to that categorie than class 1 children did in the previous testing. In the face of this consolidation of the class effect over time, it appears somewhat difficult to ward off the suspicion that the school plays some constitutive role in creating it[6].

6 *Educational level of parents and GPA.* A crosstabulation of fathers' educational level with GPA (boys, girls and both sexes combined) yield much the same pattern of increasing frequency of high grades with increasing educational level, respectively decreasing frequency of low grades in the "high" educational levels. Overall chi^2 is 116.47, $df = 15$, $p < 0.001$, $C = 0.31$. It is worthwhile calling attention to the fact that increase in the high grade categories (8-8.9 and 9-10) is monotonic and almost linear over the four educational levels (see p. 58 for definition of these levels).

7.5 Sex Effects

Tables 46 and 47 show differences in GPA between both sexes at the two graduation points in the six occupational classes.

The main feature emerging from the comparison of boys' and girls' GPAs at graduation from lower elementary school is that girls achieve considerably better than boys in all occupational classes. While boys total 46.2 per cent in the two highest grade intervals taken together, girls total 56.6 per cent; and while boys total 24.3 per cent below 7.0, girls only total 15.3 per cent in the three lowest intervals taken together. Thus both sides of the distribution are affected by sex differences.

Chi^2 analysis shows class effects to be highly significant in both distributions. This is substantiated by the relative frequency of high grades generally increasing with ordinal position of class. For the highest grade intervals taken together, the relative frequencies sum as follows: Wheras girls, generally, achieve better than boys, their gain over boys is most marked in those groups which, time and again, have appeared most "deprived": Classes 1 and 5. The achievement increment in girls over boys is indeed intriguing if we bear in mind the results of our previous findings concerning IQ, which showed decreasing IQs for lower class girls and stagnant IQs for middle class girls, whereas boys' IQs were growing, albeit at different rates in the two groups. With the unusually high correlation ($r = .65$) obtaining between grades and IQ, the question arises how these discrepancies can be explained. A sizeable part of both the variance in IQ and of the variance in evaluated achievement appears to be class related; but in that part of the variance in grades that is least accounted for by IQ (as evidenced by IQ decrements in girls) class- and sex-related influences appear to be operating that call for specific explanations. The skewed distribution of grades (with the mode in the interval between 8 and 9) shows that it must be quite easy to be a high achiever in the lower elementary school, even when IQ is not correspondingly high. And it appears even easier for girls who, as a group, and contrary to boys, on the average reveal a decrease in IQ during elementary school while achieving overrepresentation in the highest grade categories relative to boys. The class-related differences in this sex-specific "overachievement" in girls over boys were demonstrated above. They may also point to

Table 46: Boys and Girls in Different GPA Ranges at Graduation from Lower Elementary School by Occupational Class of Father (in %)

Occupational class of father	boys – girls	Grade interval 0–4.9 %	5.0–5.9 %	6.0–6.9 %	7.0–7.9 %	8.0–8.9 %	9.0–10.0 %	total %	N
1	b	5.0	10.6	20.6	31.9	28.4	3.5	100	141
	g	0.7	7.3	16.8	27.8	37.2	10.2	100	137
2	b	2.5	8.8	14.5	33.3	39.0	1.9	100	159
	g	0.0	2.5	11.1	37.7	36.4	12.3	100	162
3	b	0.0	5.5	9.3	31.5	46.3	7.4	100	54
	g	0.0	7.8	7.9	23.5	39.2	21.6	100	51
4	b	0.0	2.6	8.0	26.7	54.7	8.0	100	75
	g	1.3	0.0	6.3	19.0	50.6	22.8	100	79
5	b	0.0	13.3	20.0	26.7	28.9	11.1	100	45
	g	0.0	5.0	8.3	26.7	38.3	21.7	100	60
6	b	0.0	4.5	2.2	13.3	55.6	24.4	100	45
	g	0.0	5.9	0.0	14.7	38.2	41.2	100	34
T	b	2.1	8.1	14.1	29.5	39.7	6.5	100	519
	g	0.4	4.4	10.5	28.1	39.4	17.2	100	523

boys: $chi^2 = 79.48$, df = 25, $p < 0.001$, $C = 0.36$, max. value of C = 0.913

girls: $chi^2 = 56.45$, df = 25, $p < 0.001$, $C = 0.31$, max. value of C = 0.913

Table 47: Percentages of Boys and Girls in the Two Highest GPA Ranges Combined at Graduation from Lower Elementary School by Occupational Class of Father

Occupational class of father	1	2	3	4	5	6	mean
Boys	31.9	40.9	53.7	62.4	40.0	80.0	46.2
Girls	47.4	48.7	60.8	73.4	60.0	79.4	56.6
Girls above (+) or below (−) boys	+15.5	+7.8	+7.1	+11.0	+20.0	−0.6	+10.4

Critical ratios and significance levels for each class and the mean:

class 1: CR 2.624	$p < 0.005$	class 4: CR 1.470	p ns
class 2: CR 1.410	p ns (< 0.10)	class 5: CR 2.071	$p < 0.025$
class 3: CR 0.737	p ns	class 6: CR 0.065	p ns
		mean CR 3.375	$p < 0.005$

class-related underachievement of *boys* in class 1 and 5, rather than more "overachievement" in girls from these classes over and above the average grade advantage of all girls over boys. This contention is supported by the fact that for class 1 boys the modal grade is lower, by one interval, than for all other groups. For class 5 boys, who are very similarly represented in the grade interval 8-9, there is, however, an increment in the highest grade category to compensate, as it were, for their low numbers in the second highest category. These are the "overachievers" mentioned earlier (see p. 113 s). Looking at the lower end of both distributions (below 7.0), we find more than one third of the boys from class 1 and class 5 there, and one fourth of boys from class 2 as compared to one fourth of girls from class 2 as compared to one fourth of girls from class 1 and less than 15 per cent of girls from classes 5 and 2. These findings call for an explanation of the relationship between school achievement in the lower elementary school and intelligence. Two things appear clear: *One*, while stimulating high (evaluated) achievement, school does not seem to stimulate cognitive growth (at least as measured by IQ), witness girls' decrements in IQ and concomitant increments in grades. *Two*, as a consequence, we are inclined to hypothesize that those environmental influences on cognitive growth that are operating outside the school must be more instrumental in affecting cognitive performance differentially between socio-economic classes than are school-related influences. If this is the case, school is indeed of no avail to compensate for class-related inequality in the cognitive realm. But neither does it seem to contribute much to this inequality by and of itself during the first six years of schooling at least and this is somewhat a variance with our previous speculations.

But if the school does not appear, on the basis of our data, to directly *contribute* to class-related inequality of cognitive performance, the least we can say is that it is astonishingly ineffective in counteracting it. It is worth calling attention to the fact that equalizing opportunity is precisely one of its objectives as officially declared, and that, moreover, conditions for fulfilling this role appear unusually propitious in Iceland, as outlined in the first sections of this report. In a context of growing inequality, a failure to have school cope with it by granting it compensatory functions amounts to contributing to inequality. If the very high correlation of IQ and grades is considered, with half of the variance in grades accounted for by IQ — up to double the amount we find in many other systems ($r = .35$ to $.50$) — the question becomes all the more pressing: what are the functional properties of schooling in Iceland? Does it only distribute knowledge, without enhancing cognitive growth in those receiving it? Does it only reproduce the pattern of social and intellectual inequality already established before children enter school?

We are fully aware that these are serious queries, and that they are speculations based on limited data about performances of the lower elementary part of the system. We are also aware of the fact that in the last few years (since about 1970) serious efforts have been undertaken to change the inner operations of the school in view of a more consistent orientation towards growth and development of children with different needs and dispositions[7].

7 The school law of 1974, and the new syllabi beginning to be issued in 1976 stipulate educational and didactic policies consonant with the maxim that equality of opportunity for children of different social and regional origin and different cognitive, social and affective development should be the aim of both educational organization and instruction.

Table 48: Boys and Girls in Different GPA Ranges at Graduation from Upper Elementary School by Occupational Class of Father (in %)

Occupational class of father	boys – girls	Grade interval 0–4.9 %	5.0–5.9 %	6.0–6.9 %	7.0–7.9 %	8.0–8.9 %	9.0–10.0 %	total %	N
1	b	20.5	22.7	22.7	25.0	8.3	0.8	100	132
	g	10.9	24.4	29.4	25.2	9.2	0.8	100	119
2	b	9.8	20.3	25.2	28.0	16.1	0.7	100	143
	g	4.9	14.8	30.3	31.7	16.2	2.1	100	142
3	b	6.1	14.1	19.6	28.3	32.3	2.1	100	51
	g	8.2	28.6	14.3	22.4	24.5	2.0	100	49
4	b	5.0	10.0	20.0	30.0	26.7	8.3	100	60
	g	2.9	14.7	17.6	27.9	33.9	2.9	100	68
5	b	5.0	25.0	25.0	25.0	15.0	5.0	100	40
	g	5.6	16.7	13.0	40.7	24.1	0.0	100	54
6	b	0.0	5.6	5.6	27.8	50.0	11.1	100	36
	g	2.9	5.9	20.6	23.5	35.3	11.8	100	34
T	b	10.6	18.4	21.6	27.1	19.3	3.0	100	462
	g	6.4	18.2	23.8	29.0	20.2	2.4	100	466

boys: $chi^2 = 85.94$, df = 25, $p < 0.001$, C = 0.39, max. value of C = 0.913

girls: $chi^2 = 65.06$, df = 25, $p < 0.001$, C = 0.35, max. value of C = 0.913

However, after the end of lower elementary school, the pattern of non-interference with individual and social differences prevalent in the lower grades may be expected to change. With the selective functions of examinations now beginning to operate, school may begin to play a more active part in the stratification process, building on the differences conserved up to that point. In order to investigate this further, we now turn to an inspection of table 48, which shows the distribution of GPA for both sexes and all occupational classes at graduation from higher elementary school level.

As before, the modal achievement has decreased for both sexes and is now located in the interval between 7.0 and 8.0. It is no longer as easy to earn high grades. The relative frequency of boys and girls in the two highest grade categories has gone down by one half.

The main finding to emerge from table 48 is that girls have essentially lost their grade advantage, and that the boys have won it in two instances. In class 5, where girls still have some grade advantage over boys,

Table 49: Percentages of Boys and Girls in the Two Highest GPA Ranges Combined at Graduation from Lower Elementary School by Occupational Class of Father (in %)

Occupational class of father	1	2	3	4	5	6	mean
Boys	9.1	16.8	33.4	35.0	17.5	61.1	22.3
Girls	10.1	18.3	26.5	36.7	24.1	47.1	22.6
Girls above (+) or below (–) boys*	+1.0	+1.5	–6.9	+1.7	+6.6	–14.0	+0.3

* t-ratios not significant.

Table 50: Percentages, and Differences between Percentages, of Boys and Girls in the Two Highest GPA Ranges Combined at Graduation from Lower (t_1) and Upper (t_2) Elementary School by Occupational Class of Father

Graduation time	boys – girls	Occupational class of father 1	2	3	4	5	6	T
t_1	b	31.9	40.9	53.7	62.4	40.0	80.0	46.2
	g	47.4	48.7	60.8	73.4	60.0	79.4	56.6
t_2	b	9.1	16.8	33.4	35.0	17.5	61.1	22.3
	g	10.1	18.3	26.5	36.7	24.1	47.1	22.6
Difference $t_1 - t_2$	b	22.8	24.1	20.3	27.4	22.5	18.9	23.9
	g	37.3	30.4	34.3	36.7	35.9	32.3	34.0
Girls' "losses" exceeding boys'		14.5***	6.3	14.0*	9.3	13.4*	13.4*	10.1***

* $p < 0.10$

*** $p < 0.005$

this seems due to an even more massive achievement decrement in boys than is the case for girls. Class 6 is of particular interest. While the relative overrepresentation of class 6 children in the highest grade interval was almost equal for both sexes, this has changed quite drastically in favor of boys: The reduction in girls' grades is almost double that of boys'. Whereas boys appear to receive specific stimulation for high achievement, either within school or outside it, less aspiration appears to be invested in girls, a hypothesis perhaps supported by the intelligence decrements of girls with age described earlier. Conversely, in class 5 we would speculate that rapidly mobile families press sons for achievement more than is consistent with their resilience, while girls may be under less pressure and thus be in a position to achieve relatively more freely. In the two lowest classes, both boys and girls are drastically reduced in achievement, but girls more so than boys. Class-related differences thus obtain both in the reduction of achievement generally and in the differentials of this reduction between the sexes although these do not attain statistical significance.

Table 50 shows that girls' "underachievement" is mitigated in two of those classes where education plays a constitutive role in the social position: classes 2 and 4. This is not so in class 6, which thus appears to channel aspiration for its children according to more strongly male-oriented traditions, pushing boys towards the upper end of the distribution. Education in classes 2 and 4, again seems to play a more equalizing role in the aspirational economy with some benefit to the girls in the development of their abilities, whether this resides in nursing, teaching or motivating them. In class 5, however, the traditional male-oriented aspiration appears rather as a handicap to the boys, as speculated on before, since rapid mobility may not have offered the families the necessary conditions for unfolding patterns of aspiration and motivation management consistent with needs and capabilities both of the family, i.e. the father, and the child. In short, it may be that these families have lacked opportunity to build interactional patterns conducive to cognitive growth or to the realization of cognitive potential. We shall return to this question below (see p. 136).

7.6 Stratification and School Achievement: Some Further Evidence

Returning to the hypothesis formulated on p. 120, on the basis of the data at hand it now appears likely that school, at the end of compulsory education, does contribute to stratification processes. There are cues as to differential selection operating as a sieve or a channeling device, directing children into different socially validated tracks leading to different professional careers and, at the same time, different social statuses. The classical overrepresentation of lower class children at the lower end of the grade distribution[8] appeals to the notion of a "cooling out function" of school for 'common man' children (Kahl, 1961; see also Clark, 1960) as table 51 shows.

It can be argued that graduation grades from compulsory school do hardly warrant such far reaching conclusions. They can only be proved in longitudinal studies producing information on both final educational level and occupational status of our subjects. Evidently our sample has not reached its "final position" in society yet.

However, inspection of the data available on that part of the sample which has terminated its educational career in 1975 (N = 400) yields relevant cues towards an answer to our question (Gudmundsdóttir, Thórdardóttir, and Karlsdóttir, 1975).

The subjects in the study, aged 22-25 years, were classified into the four educational levels as defined earlier for their parents (see p. 58). Table 52 shows the distribution obtained for them:

When Table 52 is compared to table 13 on page 58 , which shows the level of educational attainment of the parents in the sample, it is clear that average educational level has increased very considerably between the two generations. However, although higher level education of girls has increased disproportionately, they still are markedly underrepresented at the highest educational level. Male ascendency still appears to be operative at this level. Something like a "compensation" is found at level III where girls are overrepresented. This problably represents a step towards fuller educational equality. It is interesting to note that, conversely, at the lowest level girls are slightly less represented than boys.

Table 51: Percentages of Boys and Girls with GPA's below the Mode (7.0) at Graduation from Upper Elementary School by Occupational Class of Father

Occupational class of father	1	2	3	4	5	6	mean
Boys	65.9	55.3	37.3	35.0	57.5	11.2	50.6
Girls	64.7	50.0	51.1	35.2	35.3	29.4	48.4
Girls above (+) or below (−) boys	−1.2	−1.3	+14.9	+0.2	−22.2	+18.2	−2.2

CR between sexes within class not significant.

Table 52: Final Educational Attainment in a Subsample of 400 Individuals Aged 22 to 25 in 1975 (in %)

Educational level	1	2	3	4
Boys	7.3	50.8	16.8	25.1
Girls	5.7	56.0	23.3	15.0
Both sexes	6.5	53.4	20.1	20.1

8 The overrepresentation of lower class children in the lower end of the distribution is, of course, matched by the overrepresentation of higher class children in the upper ranges of the distribution, with class 5 providing the now familar exception, especially with regard to boys.

Table 53: Final Educational Attainment in a Subsample of 400 Individuals Aged 22 to 25 in 1975 by Occupational Class of Father (in %)

Educational level of children	Occupational class of father 1	2	3	4	5	6	T
1	40.0	16.0	16.0	12.0	16.0	0.0	100
2	36.0	33.0	11.3	9.8	7.9	2.0	100
3	15.6	24.7	9.1	25.9	14.3	10.4	100
4	13.2	25.0	5.3	23.7	11.8	21.0	100
T	27.6	28.6	10.0	16.0	10.5	7.3	100

chi^2 = 68.695 df = 15 p < 0.001 C = 0.39 max. value of C = 0.866

In order to answer our question, we shall now inspect the data in view of the social extraction of individuals at various educational levels (table 53). Clearly, final educational attainment, in spite of mobility between generations, remains highly class-related, as evidenced by the chi^2 analysis. When each cell is compared with the 'expected value' for each class represented by the totals in the bottom row, we see class 1 overrepresented in the two lowest educational levels, although it may appear as a progress that it is now almost as highly represented in level II as it is in level I. The corresponding underrepresentation in the upper levels follows naturally. Conversely, class 6 is highly overrepresented at the upper levels. Although class 4, and to a lesser extent class 5, are still overrepresented in the upper half of the educational distribution there are clear signs of downwards mobility in both groups, a characteristic hardly in evidence in the parental groups. Occupational class 2, the skilled workers, are approaching "due representation" at the upper levels, being only slightly overrepresented at the educational level of their class of origin (II). Upwards social mobility is still a salient characteristic of this group.

The relative representation of the six parental occupationals classes in the four educational levels of children perhaps appears even more clearly in table 54, which incidentally yields some cues as to self-recruitment, as well as upwards and downwards mobility in different social strata and educational levels[9].

The familiar class pattern is clearly reproduced in the new generation, slightly skewed upwards modally, with signs of downwards mobility in young people of class 5, but also of class 4 origin. Whereas the lowest educational level now is an exception, there is a vast difference between the representations of each class of origin among those who attain the highest educational level. Although education, in the parental generation, evidently "helps" to attain it, as evidenced by classes 2 and 4 (besides 6), educational mobility is clearly hampered by class. It is hardly necessary to point out that, once more, class 5 children demonstrate the established pattern.

Table 54: Percentages of Children Originating from Different Classes at the Various Levels of Final Educational Attainment. Subsample of 400 Individuals Aged 22 to 25

Educational level of children	Occupational class of father 1	2	3	4	5	6	T
1	9.5	3.7	10.5	4.9	10.0	0.0	6.7
2	69.5	61.5	60.5	32.8	40.0	14.3	53.8
3	11.4	17.4	18.4	32.8	27.5	28.6	20.4
4	9.5	17.4	10.5	29.5	22.5	57.1	19.2
T	100	100	100	100	100	100	100

chi^2 = 68.92 df = 15 p < 0.001 C = 0.39 max. value of C = 0.866

9 Table 53 should be read as follows: 40 per cent of level I children originate from class 1, 36 per cent of level II children originate from it, 16 per cent of level I children from class 2 etc.; table 54 should be read as follows: 9.5 per cent of children of class I extraction only attain educational level I, 69.5 per cent level II, whereas 3.7 per cent of class 2 children attain level I education etc.

7.7 Grades and IQ

To investigate potential inequality functions in the evaluation of school achievement it is possible to look whether, for children of different social origin, differential "amounts", so to say, of intelligence (IQ) are required for a given grade. This strategy presupposes IQ to represent a "deeper structure" than school grades, taken to represent a more superficial pattern, potentially affected by various intervening forces[10].

Besides socio-economic class the sex variable may be one such intervening factor. In a follow-up study of a part of his original Icelandic standardization sample for the Terman-Merril Intelligence Test, Jónasson (1956 and 1967) collected data on the school-achievement of children as evidenced by grades at three examinations (lower elementary, higher elementary and the selective examination at the entrance of higher secondary (pre-university) school. Table 55 shows the GPA at these three examinanitions in various IQ categories.

The table shows a consistent increase in GPA with increasing IQ; at the same time, however, for the two graduation points within the elementary school, girls score systematically higher GPA's at each given IQ range than boys do. This is consistent with the findings reported in the previous sections. However, in the selective examination at the end of the lower secondary school the sex-related achievement differentials within each IQ range have disappeared. In other words, a given GPA now has about the same IQ prerequisites for both sexes. In this sense, the examination machinery works with less discrimination. Whether this interpretation is valid considering the systematic bias in IQ against girls discussed earlier is another question. It would appear that the examination system has only adopted the pattern of general disadvantage to girls, exerting a stronger selection pressure on them by eliminating the over-achievement bonus that earlier examinations granted them.

In any case a model relating relatively "pure" IQ to more "socially generated" grades is faulty, if it is taken to imply that IQ is a potential that is relatively uncontaminated socially, and then transformed, via intervening forces, into socially mediated grades. We take both to represent socially generated performances, both subject to social forces, some of which operate in both sets of performance, while others operate at either one or the other. Finally, also the way in which IQ itself affects school performance and

Table 55: GPA by IQ Ranges of Girls and Boys at Three Graduation levels*

Type of examination	boys – girls	IQ ranges 55–74	75–84	85–94	95–104	105–114	115–124	125–134	135–164	N
		grade points average								
Lower elementary	b	5.40	6.56	6.91	7.36	7.90	8.28	8.60	8.74	.
	g	4.36	6.22	6.53	6.98	7.46	7.95	8.14	8.46	.
	t	5.11	6.44	6.76	7.18	7.66	8.09	8.18	8.53	1.875
Higher elementary	b	.	5.82	6.01	6.36	6.87	7.40	8.20	8.33	.
	g	.	5.39	5.75	6.16	6.50	7.15	7.29	8.08	.
	t	.	5.68	5.92	6.27	6.67	7.26	7.60	8.15	1.510
Higher secondary entrance examination	b	.	.	5.54	5.77	6.21	6.41	6.80	7.36	.
	g	.	.	5.55	6.00	6.25	6.56	6.87	7.70	.
	t	.	.	5.54	5.90	6.23	6.49	6.84	7.61	538

* From: Jónasson, M. Mannleg greind (Human Intelligence), Reykjavik 1967, p. 220.

10 For the argumentation, and for a comparison with a German study see Oevermann et al., 1976b. - Our data show, for example, that children's grades, at graduation from lower elementary school, correlate somewhat more highly with fathers' level of educational attainment than with mothers', but that mothers' education appears to "affect" girls' grades more than boys'. But as ceiling effects in mothers' educational level (only four of them attain level IV) may produce artifacts, we abstain from tabulating these data here. Suffice it to say that mothers' educational level appears to affect girls' achievement more than boys' and that these effects may be taken to intervene between IQ and grades.

its evaluation is, partly at least, socially determined. It is only this last relationship that is under scrutiny in the following remarks.

In this view, a class-related bias in grading children would show up in a relatively higher IQ needed by lower class children to obtain a given grade than would be the case for children of higher social class. Inspection of the data did *not* reveal a consistent trend in this direction. In general, at graduation from lower elementary school, IQ is increased by an average of 7.5 points for each grade interval from 6.0—10.0, or about 30 IQ points across the upper part of the grade distribution. Below 6.0, a number of irregularities prevail that seem to point to the fact that low grade is not related as directly to IQ as high grade. In general, systematic class-related differences in IQ at a given grade level did not prevail. However, in the modal grade interval, 8.0—9.0 or grade 6 and 7.0- for grade 8,there is indeed a class-related bias — but in a direction contrary to that expected.

When looking at the relationship of IQ to GPA at graduation from *lower* elementary school (grade 6), indeed, for both sexes combined "required IQ" generally if somewhat irregularly increases with rank order position of class — from 101.7 IQ points in class 1 to 108.7 IQ points in class 6, about one half standard deviation. If boys and girls are considered seperately the overall picture remains largely the same, while presenting less regularity in the detail. For boys the same trend is also visible in the grade interval below the mode (7.0-7.9). In a way then, grading children within the modal grade interval shows signs of some "retributive justice", compensating as it were, for the class handicap by decreasing the "prize" for the grade in terms of IQ in proportion with class affiliation. Class 5, even here, provides the expected exception: it is equal, or next to, class 2 in IQ "required" for the modal grade.

A second feature is of interest here: High grades in many cases appear together with a considerable discrepancy between verbal and performance scores in the IQ test. This particularly affects boys of class 1, 3 and 4, and children of both sexes in class 6. Conversely, grades below the mode (8.0-9.0) consistently appear together with a verbal IQ depressed below performance IQ. This holds true for both sexes, but is more marked throughout for girls. From this we conclude that, more directly than class bias, a verbal bias dominates grade distribution at the lower elementary level, and that, indirectly, this bias affects both class and sex related patterns of evaluation.

At graduation from *upper* elementary school — at the end of grade 8 — the trend towards higher "required IQ" with increasing class position still prevails in the modal grade interval, but it now appears in a simplified form: While IQ differences between classes in the lower class cluster (classes 1, 2, 3 and 5!) are slight quite sizeable IQ differences obtains both between this cluster and the higher classes (bout six IQ points on the verage) and between these. The overall difference thus again amounts to roughly one half standard deviation. Grossly the same picture emerges from consideration of boys' and Girls' distributing separately. Here, however, the high mean IQ of class 2 boys provides a remarkable exception. Perhaps families of skilled workers an attisans with cognitive and motivational inclutives not provided for girls.

Again, class 5 children in the highest grade interval score considerably below the other "high" classes in IQ. As to differential relevance of verbal to performance IQ for high grades, again very considerable discrepancies between those scores appear in the highest grade category, the verbal score always exceeding the performance score by some 10 to 25 points (with the greatest discrepancy obtaining in class 6). The discrepancy is more marked for boys than for girls, however, due to the depression in girls' verbal IQ scores discussed earlier. The exception is class 5, where the opposite is true (a difference of 12 IQ points in favor of performance). For the lower end of the grade distribution, the discrepancy favoring performance is somewhat attentuated, but still quite visible in the majority of cases. The prevalence of verbal achievements in grading thus seems to represent a persistent element of the evaluation pattern, as in other countries. A vast body of literature has been accumulated in support of class-related language privilege, operating both in school and examination achievements and in its evaluation by the school system (see for example, Bernstein and Henderson, 1973; Bourdieu and Passeron, 1964, Bourdieu 1966; Oevermann, 1966, 1968). Since the structure of social inequality obviously exerts a stronger influence in the grade distribution at the end of compulsory schooling, we may conclude that verbal intelligence or fluency of verbal expression of cognitive process is gradually becoming more relevant in the educational game as the children advance towards choices and decisions which really test the opportunity structure.

Summing up, our analysis reiterates the almost trivial finding that IQ shows covariation with class, and school achievement (as measured by GPA) with IQ. The details, however, while supporting the findings reported earlier, are perhaps less trivial. Increasing discrepancies between verbal and performance IQ by class and, even more markedly, discrepancies in intelligence between the sexes are difficult to reconcile with a geneticist view of the relation between class and IQ (and, by implication, since IQ and school

Table 56 a: Children's Mean IQ per Grade at Graduation from Lower Elementary School by Sex of Children and Occupational Class of Father (Wechsler, Full Scale and GPA).

Occupational class of father	boys GPA ranges 5.0–5.9	6.0–6.9	7.0–7.9	8.0–8.9	9.0–10	M T	girls GPA ranges 5.0–5.9	6.0–6.9	7.0–7.9	8.0–8.9	9.0–10	M T	boys and girls GPA ranges 5.0–5.9	6.0–6.9	7.0–7.9	8.0–8.9	9.0–10	M T
1	90.7	90.7	96.6	101.9	120.0	97.13	89.7	84.3	94.0	101.5	112.0	97.45	90.2	88.8	95.4	101.7	114.2	97.28
	(15)	(30)	(45)	(42)	(5)	(137)	(12)	(13)	(38)	(51)	(13)	(127)	(27)	(43)	(83)	(93)	(18)	(264)
2	88.1	93.2	98.7	106.2	105.0	99.94	76.7	92.3	96.4	101.5	108.4	98.80	85.7	92.8	97.5	103.9	107.9	99.35
	(15)	(23)	(53)	(62)	(3)	(156)	(4)	(18)	(62)	(60)	(20)	(164)	(19)	(41)	(115)	(122)	(23)	(320)
3	90.7	89.6	101.7	109.5	106.6	103.97	85.9	92.3	97.5	105.3	111.5	102.26	88.0	90.8	100.0	107.6	109.9	103.15
	(3)	(5)	(17)	(25)	(5)	(55)	(4)	(4)	(12)	(20)	(11)	(51)	(7)	(9)	(29)	(45)	(16)	(106)
4	99.5	97.7	100.2	110.4	118.0	107.09		89.6	93.9	104.4	111.4	103.06	99.5	94.0	97.5	107.5	113.1	105.06
	(2)	(6)	(20)	(43)	(6)	(77)	(0)	(5)	(15)	(40)	(18)	(78)	(2)	(11)	(35)	(83)	(24)	(155)
5	89.0	88.9	95.0	105.9	110.5	97.78	74.0	89.8	99.6	105.9	106.9	101.57	84.0	89.2	97.5	105.9	107.8	99.94
	(6)	(9)	(13)	(13)	(5)	(46)	(3)	(5)	(16)	(23)	(14)	(61)	(9)	(14)	(29)	(36)	(19)	(107)
6	90.5	96.0	110.1	109.4	121.6	111.36	71.0		96.2	107.6	110.0	104.85	80.8	96.0	103.8	108.7	115.1	108.48
	(2)	(1)	(6)	(24)	(11)	(44)	(2)	(0)	(5)	(14)	(14)	(35)	(4)	(1)	(11)	(38)	(25)	(79)
M	89.94	91.82	98.43	106.92	115.60	101.38	83.63	89.41	95.96	103.33	109.90	100.19	87.62	90.91	97.22	105.13	111.50	100.79
T	(43)	(74)	(154)	(209)	(35)	(515)	(25)	(45)	(148)	(208)	(90)	(516)	(68)	(119)	(302)	(417)	(125)	(1.031)

N = 1.100
GPA 0–4.9 = 69

Table 56 b: Children's Mean IQ per Grade at Graduation from Upper Elementary School by Sex of Children and Occupational Class of Father (Wechsler, Full Scale and GPA).

Occupational class of father	boys GPA ranges 5.0–5.9	6.0–6.9	7.0–7.9	8.0–8.9	9.0–10	M T	girls GPA ranges 5.0–5.9	6.0–6.9	7.0–7.9	8.0–8.9	9.0–10	M T	boys and girls GPA ranges 5.0–5.9	6.0–6.9	7.0–7.9	8.0–8.9	9.0–10	M T
1	91.2	97.2	101.6	113.6	101.0	98.6	91.0	96.3	102.0	109.5	95.0	97.8	91.1	96.7	101.8	111.5	98.0	98.2
	(30)	(30)	(33)	(11)	(1)	(105)	(29)	(35)	(30)	(11)	(1)	(106)	(59)	(65)	(63)	(22)	(2)	(211)
2	94.7	97.4	107.4	104.5	128.0	101.3	91.0	96.8	98.4	107.4	115.3	98.6	93.1	97.1	102.6	105.9	118.5	100.0
	(29)	(36)	(40)	(23)	(1)	(129)	(21)	(43)	(45)	(23)	(3)	(135)	(50)	(79)	(85)	(46)	(4)	(264)
3	98.7	103.8	101.1	110.2	117.0	104.7	96.3	99.0	100.2	115.8	105.0	103.1	97.1	101.8	100.7	112.6	111.0	103.9
	(7)	(10)	(14)	(16)	(1)	(48)	(14)	(7)	(11)	(12)	(1)	(45)	(21)	(17)	(25)	(28)	(2)	(93)
4	101.8	101.0	106.5	112.7	122.2	108.0	87.9	97.5	107.4	106.4	117.5	102.6	93.1	99.3	107.0	109.0	120.9	105.1
	(6)	(12)	(18)	(16)	(5)	(57)	(10)	(12)	(19)	(23)	(2)	(66)	(16)	(24)	(37)	(39)	(7)	(123)
5	92.7	94.9	102.7	115.4	111.5	99.9	89.6	103.3	101.8	110.0		101.9	91.3	98.4	102.1	111.5	111.5	101.1
	(11)	(10)	(10)	(5)	(2)	(38)	(9)	(7)	(22)	(13)	(0)	(51)	(20)	(17)	(32)	(18)	(2)	(89)
6	96.0	104.5	108.4	115.9	118.5	112.4	103.0	98.6	112.0	104.5	114.0	106.1	99.5	99.9	110.0	111.4	116.3	109.4
	(2)	(2)	(10)	(18)	(4)	(36)	(2)	(7)	(8)	(12)	(4)	(33)	(4)	(9)	(18)	(30)	(8)	(69)
M	94.06	98.30	104.72	111.05	118.14	102.79	91.61	97.39	101.95	108.46	112.45	100.44	92.84	97.82	103.28	109.72	115.64	101.58
T	(85)	(100)	(125)	(89)	(14)	(413)	(85)	(111)	(135)	(94)	(11)	(436)	(170)	(211)	(260)	(183)	(25)	(849)

N = 1.000
GPA 0–4.9 = 79
no information = 72

achievement are so intimately related, between class and GPA). The nature of the social influences on the differential pattern of relationships between qualitative aspects of IQ calls for clarification. What are the socializatory antecedents of particular growth patterns in intellectual performance or, to turn it the other way around, which are the class related influences on, or regulations of childhood which either foster or inhibit intellectual development specifically and qualitatively, and do so differentially for boys and girls? And how do these class related influences or, rather: how do subcultural life-worlds of child rearing relate to action parameters in different segments of the social network?

If, then, class specific relationships between verbal and performance aspects of intelligence and considerable sex differences both in IQ generally and specifically with regard to the qualitative aspects of intelligence contradict a geneticist interpretation (calling for a closer analysis of life-world-specific child rearing ecologies and interaction styles), the social organization of learning — the function of schooling in the development of cognition — becomes a matter of prime concern. After all, instruction represents a social organization of the intellectual activities of children, and if, as appears plausible, their cognitive potential is affected by the social matrix in the first place, this must be true to a greater or lesser extent also for cognitive socialization in institutional settings. With due caution, and fully aware of possible objections to the indicators we have used in the study (class, IQ, GPA) we can tentatively sum up the problem in the three following questions:

First. How does school function, and what effects does school produce, if indeed GPA is consistently and highly related to IQ and IQ is consistently and highly related to class?

Second. If class related life-worlds differentially foster or restrict cognitive potential in infancy, does schooling replicate, restrict, support, intensify, mitigate or compensate for the cognitive effects of inequality?

Third. Expanding the previous question to include policy implications: How can school, or educational policy, curriculum construction and instructional design react to the fact that, as matters stand at the time of data collection, schooling appears to be increasing rather than diminishing the handicap of the two most underprivileged groups: lower class children, and girls?

8.
Class and Patterns of Child Rearing

8. Class and Patterns of Child Rearing

A wealth of research has shown child rearing attitudes of parents, particularly mothers, to be class-related to a considerable extent (see for example the literature reviewed by Becker, 1964; Bronfenbrenner, 1958; Caldwell, 1964; Deutsch, 1973; and the research of Baumrind, 1967, 1971; Kohn, 1969). As mentioned earlier, and contrary to beliefs widely embraced by Icelanders, we do not expect Iceland to present an exception to the rule that life-worlds of various social classes differ on various dimensions. Child rearing attitudes and values of parents are expected to reflect such differences.

It should be noted at the outset that, at the time when the study was designed roughly a decade ago, our knowledge of the field was rather limited. Neither did the study focus on a detailed pluridimensional investigation of child-rearing attitudes. The purpose was mainly to tentatively isolate some extreme patterns of child rearing likely to be of relevance for the emotional disorders of children. It will be remembered that an epidemiological study of these disorders was the main objective of the project at the outset. Although the dimensions we extracted from the data proved to be quite consonant with those most commonly found in the literature, present knowledge would have called for different strategies, both with regard to design and data collection. We would, now, include additional reference persons (such as fathers' child rearing attitudes as perceived by the child, and revealed differences between reference persons), different and better defined life-world indicators and more refined interviewing and observational techniques. In short, we would, now, adopt a different theoretical stance both with regard to child development, symbolic interaction and action characteristics of the social system and their measurement.

The operationalizations used in the research have been reported elsewhere (Björnsson, 1974). An overview follows:

During a clinical interview the interviewer evaluated the mother's child rearing attitudes towards her child. She had as a guideline a list with about 20 attitudinal items, which were checked by indirect questioning, spontaneous information and observational data. From these data five attitudinal variables were constructed:

Warmth/coldness. Three categories were used: cold, neutral, warm. The warm end was defined as accepting, understanding, child-centered attitudes with infrequent use of physical punishment. The cold end was defined by the opposite characteristics. A neutral attitude meant that the interviewer was not able to infer either cold or warm child-rearing attitudes in the mother.

Permissiveness/control. Again a three-category scale was used, ranging from a controlling attitude through neutrality to permissiveness. High control is characterized by restrictive practices, demands for obedience and abstention from aggression against peers and parents; finally, by stress on neatness and orderliness.

Detachment/involvement. The three-category scale runs from anxious emotional involvement to calm detachment, with the neutral attitude defined as before. Anxious emotional involvement was characterized by high emotionality in relation to the child, babying, protectiveness and an overly solicitous attitude towards the child's welfare. Calm detachment meant the opposite of this attitude: lack of emotional contact with the child, a nonchalant and "laisser-aller" attitude.

Consistency/inconsistency. This is a dichotomous variable. Consistent attitudes were those where the mother seemed to have a reasonably well developed set of educational rules and principles and was able to put them into practice. Inconsistency meant the absence of such principles or frequent transgression thereof.

Aspiration. This variable was also dichotomous. The distinction was made between low to average level of aspiration and high level of aspiration. High level was characterized mainly by ambitious goalsetting especially with regard to cognitive and learning achievement.

The choice of "dimensions" needs some explanation. Originally, they were constructed as either dichotomous or trichotomous, as mentioned earlier. The "neutral" category is theoretically unsatisfactory and proved to be empirically irrelevant. This category includes intermediate intensities as expressed by the subjects, as well as those cases which the interviewer was unable to classify as either "high" or "low". Hence, we decided to eliminate the "neutral" category from consideration and to retain only the "extreme" ends of the trichotomous dimensions (warmth/coldness, permissiveness/control and involvement/detachment).

Moreover one of the two ends in the following dimensions were eliminated from consideration:

a) *Low aspirational level.* This end of the dimension included neutral or undecided attitudes with regard to aspiration and therefore was overcomplex and non-discriminatory. Systematic differences only appear

in the — relatively infrequent — "high aspiration" level, which, therefore is the only part of the scale to yield data that is amenable to interpretation.

b) *High consistency* was eliminated for the same reasons as low aspiration. Inconsistency is a "purer variable due to its construction and, for this as well as for intrinsic reasons can be expected to possess higher discriminatory value and to affect children's mental health more conspicuously.

c) *Emotional involvement* was eliminated for somewhat different reasons. It was very infrequent (from 0 to 1.3 per cent at most) and, a closely connected reason, it did not show any variation between classes. We do not know whether "involvement" is inconsistent with the prevailing culture, or whether the clinical interviewers were not sensitive enough to a "positive" dimension that is usually salient in mental health problems, or both. However, we cannot resist to speculate on a possible relationship between the highly valued cultural trait of independence in children and the low frequencies obtained for "involvement". Traditions of independence congruent with the socializatory patterns of life in stray farms (Edelstein, 1971, p. 184 ss) may have amalgamated with action problems in an urban way of life producing, with "pseudo-independence", problems of distance and alienation worthy of more intensive research. The neutral category in this trichotomous dimension was eliminated for the reasons mentioned earlier. Thus from the dimension involvement to detachment, which has been shown to be relevant in the socialization context (Schaefer, 1959; Schaefer and Bayley, 1963) only detachment is retained.

In accordance with these three "purified" unidimensional constructs, we decided also to reconstitute the dichotomous variables "warmth/coldness" and "permissiveness/control" as unidimensional constructs and code only those individuals on each variable who scored high on it. In sum, then, the intermediate position was deleted in all scales and only those individuals retained whose scores were located either on one of the ends of the previously dichotomous dimensions warmth/coldness; permissiveness/control, or on the high aspiration, low consistency, and detachment ends of the remaining dimensions. From the original group of five dimensions thus a series of seven separate unidimensional child rearing constructs was derived. The configuration of scores on these variables was expected to form a pattern of indicator values that we hoped to be able to interpret as class-specific profiles of child rearing habits.

Table 57 shows the frequency distribution of the various child rearing patterns, as indicated by the "dimensions" extracted from the interviews with the mothers. The percentages reported are those of "high scorers" on the various dimensions in each class.

Since differences between classes in individual dimensions (as originally defined) are often numerically small, overall relationship with class is slight ($r = 0.10$ to 0.15). We do not, of course, know the "meaning" of the numerical values, intervals and differences in these psychological dimensions. Technically, they are percentages derived from the "high" scores on the scales ordered in terms of percentage points differences. But because of the uncertainty just referred to we choose to interpret the data configurationally rather than dimensionwise although chi^2 analysis yields some interesting results[1].

The bottom row of the table contains the "mean scores" on the reconstituted dimensions. This mean can serve as a standard against which the measures representing individual classes can be gauged. Although, of course, one should use these figures with due caution, nevertheless class-related patterns of child rearing habits or styles emerge from the data with sufficient clarity to warrant interpretation. This is done here particularly in view of generating hypotheses for research into socialization patterns or variations thereof that may be specific to classes, or rather, subcultures in the society.

Figure 11 shows the configurations or profiles of child rearing patterns, as derived from the position of each class on each dimension. The mean for each dimension (the bottom row in table 57) is used as a standard for comparison, and serves as a baseline (or zero point) against which the position of each class is assessed. These positions thus are shown graphically as positive or negative discrepancies from the mean on a unit scale of percentage points. A comparison of the profiles for each class will disclose the most salient differences in child rearing patterns between classes.

Class 1 and *class 6* constitute clearly antithetical configurations. Recalling that we are reporting only on that part of the sample that scored "high" on the child rearing dimensions the following can be said: Class 1 is lowest on aspiration and warmth, and highest on coldness, detachment and control, almost equal to

1 Chi^2 analysis reveals that there is no significant overall difference in the dimensions of warmth and coldness. This is somewhat misleading, however. Classes 1 and 6 are obviously very different on these dimensions. It is the similarities between classes 2, 4 and 6 that prevent the differences to reach the level of statistical significance. Similarly, statistical significance is not reached for differences between classes on the dimensions of permissiveness and control although class 1 is very high in control and classes 3 and 6 are very low on this dimension.

On three dimensions the chi^2 analysis yields statistically significant results: *Detachment*, presumably due to the great discrepancy between class 1 (very high) and class 3 (very low), followed by classes 6, 5 and 4. Also, *inconsistency* and *aspiration* yield highly significant differences. The direction of these differences will become clear in the interpretation below.

Table 57: Child Rearing Patterns of Mothers by Occupational Class of Father (in %)*

Occupational class of father	Child rearing "dimensions" aspiration	control	permissive-ness	detachment	warmth	coldness	inconsis-tency
	% high						
1	8.0	38.4	12.3	15.9	65.9	17.0	14.1
2	8.5	32.5	10.4	12.8	77.4	10.4	8.2
3	11.5	24.0	7.7	5.8	74.0	11.5	14.4
4	13.5	33.5	8.4	9.7	75.5	11.6	10.3
5	14.3	37.1	7.6	8.6	72.4	12.4	2.9
6	25.0	28.6	16.7	8.3	78.6	10.7	6.0
T	11.3	33.5	10.6	11.7	73.4	12.6	10.0

* See p. 132, footnote 1 for a discussion of the chi² analysis of these data.

the highest in inconsistency, and second only to class 6 in permissiveness. For class 6, almost a reversal of this picture obtains: It is highest in aspiration (by far) and warmth, as well as in permissiveness, and second lowest on all other (restrictive and aversive) dimensions. The similar position of both groups on permissiveness indicates that this construct is likely to vary in meaning according to the configurational context in which it appears: In class 6 it is embedded in a warm, consistent, and problably emotionally involved (low detachment) pattern of child-oriented, highly nurturant rearing practice and thus should probably be considered an asset for the child, fostering independence and exploratory behavior. Together with the high aspirational level of the parents, this context seems to produce favorable conditions for the growth of intelligence and motivation and eventually to promote cognitive performance and educational achievement. With class 1 on the other hand, permissiveness enters a context of detachment, coldness and control — i.e. an emotionally barren and restrictive pattern, which, with the low level of aspiration found in this group, appears to represent something approaching lack of interest for, or orientation to, the child. In this context we would expect behavioral disorders from pseudo-independence to waywardness to be relatively frequent. As we have noted in our discussion of IQ and school achievement, this is a rearing climate less than beneficial to cognitive growth, as well as to ego development, as we shall see below. Campagna and Harter (1975) report that the sociopathic children in their study revealed conditions quite similar to the configurations represented by class 1 (and class 5 as will be shown presently). Parents were frequently described as inconsistent, oscillating between permissiveness and restrictiveness. The authors quote Robins (1966), who found similar parental dealings with sociopathic children — inconsistent discipline, either very permissive or extremely restrictive attitudes. Keller (1976a, b) found that children of low supportive and highly severe (= hostile) mothers were low on role taking, a central prerequisite to communication and moral judgement. Campagna and Harter (1975) also found their sociopathic children to be lower than normal children on the Wechsler Intelligence Scale. All these findings point to similar patterns among our class 1 (and class 5) children.

The two configurations, class 1 and class 6, can serve as contrasting types of educational, child rearing or socializatory influence patterns for better and for worse. It is worth recalling that they obviously are "extreme", or something like "pure types", and thus cannot be taken to be descriptive of the modal child rearing climate representative for each of these classes. But they reveal trends or configurations important enough to produce class specific patterns and, in all likelihood, to determine life histories of a considerable number of children such that effects on variables representing cognitive potential, school achievement or educational attainment must be expected.

With this in mind we can construct an "ideal type" (Weber, 1968) from the "pure type" that the data yield to inspection, a construct of child rearing processes leading to alternative issues in the socialization of the child. On the theoretical basis of such type construction, it is possible to state causal hypotheses which, of course, we cannot confirm within the present study. However, the data at hand seem to lend themselves easily to constructions of such ideal types. Moreover, they render plausible speculations about the relationship of child rearing styles and developmental paths or conditions of emergence of capacities of children which would "explain" the findings that our study can only descriptively report.

Figure 11: Child Rearing Patterns of Mothers by Occupational Class of Father
Classes 1 – 3

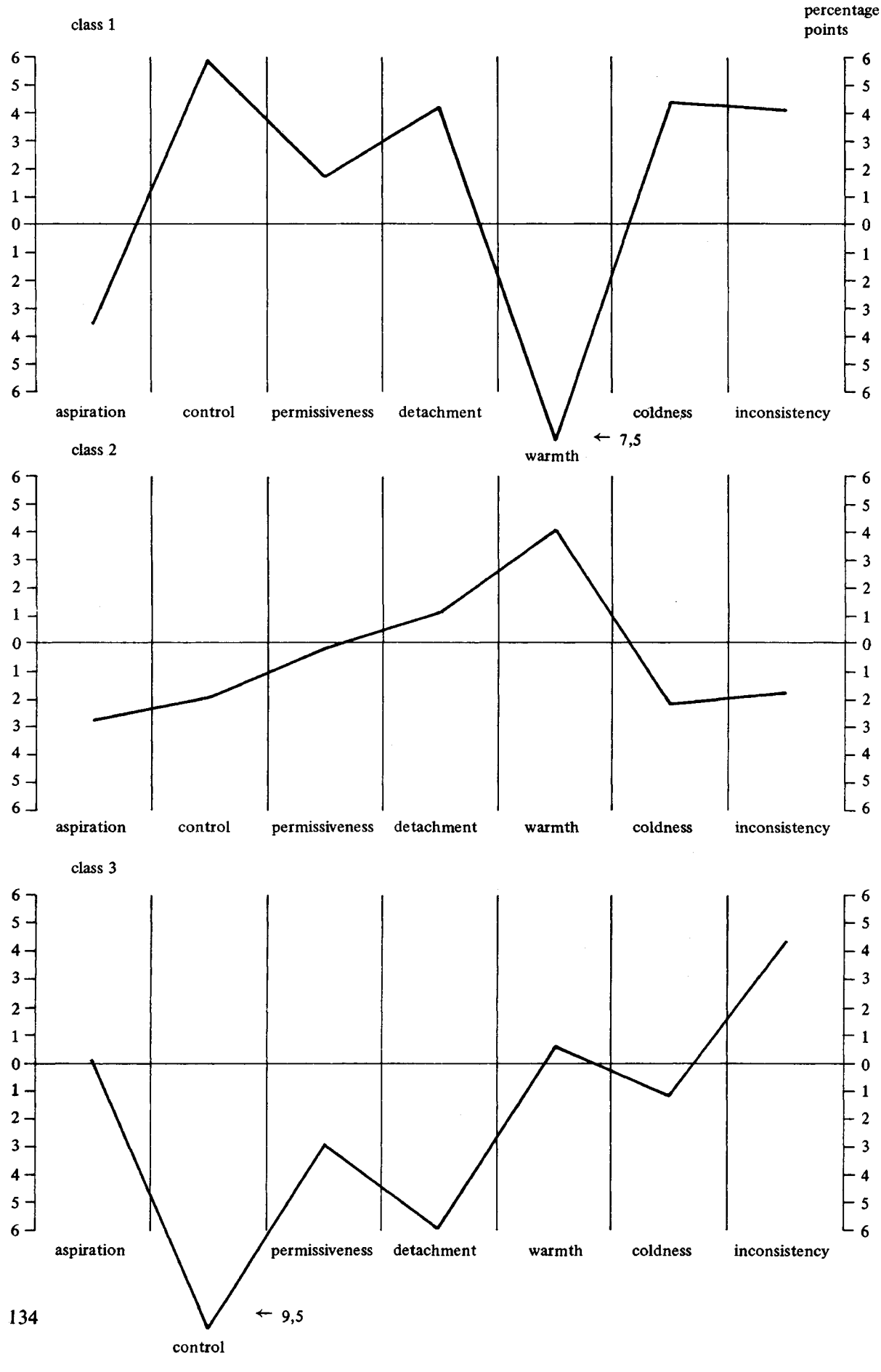
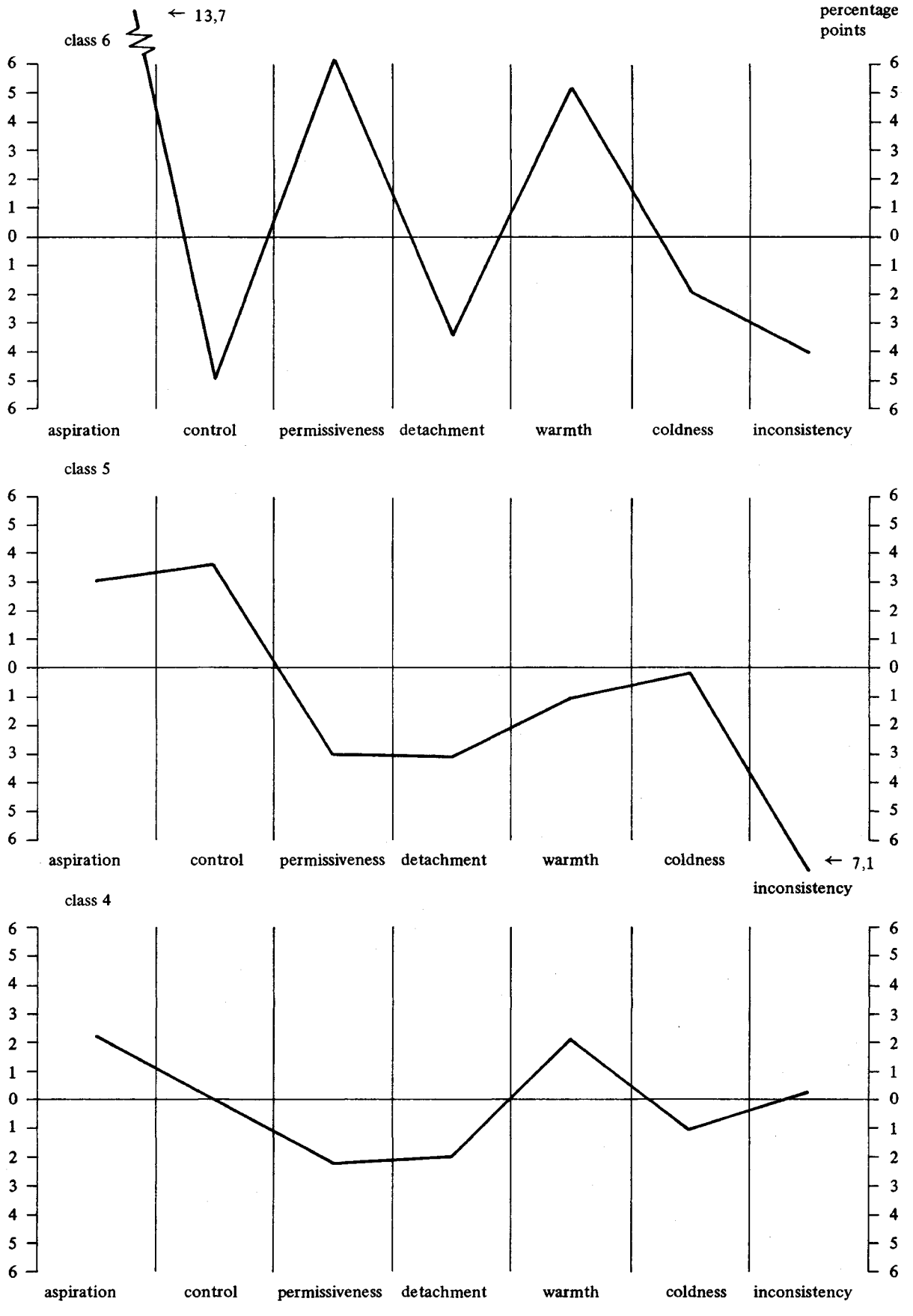


Figure 11: continued

Classes 4 – 6



Let us next consider the configuration represented by *class 5*. It comes next to class 6 in the amount of aspiration, although it is numerically somewhat lower, and nearer to class 4. And it is by far lowest in inconsistency, yet next to class 6 on this dimension. But what, then, are those child rearing characteristics with which class 5 operates so consistently? As it were, aspiration and consistency — the two parameters that are common to class 6 and 5 — can be considered as somehow *formal* attributes of the system of child rearing, while the remaining measured characteristics represent *substantive* behavioral content. With regard to these operative contents in child rearing behavior, class 5 comes closest to class 1: highly controlling, high in coldness, and low in warmth. So far, it might be said that class 5 attempts to achieve the goals of class 6 with the emotional set of class 1. There is a difference, however, regarding the remaining dimensions of permissiveness and detachment. In permissiveness, class 5 is antithetical to both class 6 and class 1 (we remind of the contextually different meanings which this term has acquired in both cases). Class 5 is extremely non-permissive in its child rearing attitudes, and relatively low in detachment. In sum, the configuration represents a pattern of consistent and highly controlling socialization practices geared to high status achievement, while operating in a rather harsh, authoritative manner. Thus it is far from the child oriented, nurturant attitude characteristic of class 6, and devoid of the permissive leeway class 1 concedes to its children.

We repeat that class 5, in many aspects, is torn between attitudes characteristic either of class 6 or class 1. It appears to tendentially retain psychological and behavioral attributes that characterize the inner life-world of class 1. The low permissiveness and low detachment that characterize class 5 in contradistinction to class 1 can be seen as corollaries of high status aspiration, and appears to reflect both achievement stress and fear of failure. With regard to child development, this configuration is certainly far from optimal. We consider it to provide at least a partial explanation of the "exception pattern" that children of this class have consistently represented throughout this study.

Classes 2 and 4 are best treated jointly because of the configurational similarity obtaining between them. Both classes seem, in general, to occupy a kind of middle position on most dimensions, sometimes approaching the upper end somewhat (warmth, detachment), and sometimes exchanging positions among themselves. A relatively stable intermediate child rearing pattern thus appears to characterize both classes. On two dimensions, however, both classes differ substantially: Class 2 is weak on aspiration and lowest of all classes on coldness while very high on warmth, whereas class 4 remains in middle positions on these dimensions. The class 2 configuration, in sum, seems to represent a low-pressure, secure, and warm child rearing climate. Perhaps, it might be hypothesized, it is more conducive to personal balance and wellbeing than to superior cognitive performance[2]. Class 4 differs from class 2 mainly with regard to its higher level of aspiration. On both warmth and coldness it occupies a more median position, and it is both less permissive and less detached. This configuration seems to represent a fairly well organized socializing milieu, with definite goals being set, while extremes are, perhaps consciously, avoided. Relatively low permissiveness confirms the thrust of this configuration that sometimes is held to be characteristic of a fairly stabilized educated and status-conscious as well as moderately disciplining (Baumrind, 1971) middle class.

Finally, class 3 represents, in some aspects, a rather exceptional pattern. Its salient feature is high inconsistency, in fact highest of all classes. If we proceed on the assumption of more "formal" and more "substantive" elements of the child rearing patterns under study, and ask to which behavioral "content" the formal elements of inconsistency may relate, we find that class 3 is lowest, or almost so, both in control, permissiveness and detachment (while warmth and coldness, as well as aspiration, occupy a middle position). But what does it mean to be both low controlling and low permissive — two dimensions that one would expect, on common sense grounds, to be more or less complementary? (The present pattern, however, confirms that they should be considered as independent constructs.) When we consider very low detachment together with low permissiveness, we have a pattern that we might term as "overprotective". When low control and low permissiveness go together, the pattern of inconsistency emerges, and on the basis of this configuration we are led to suspect an oscillation between a need and a fear of control, resulting in child rearing strategies that neither succeed in exerting control nor granting leeway to the child. It appears as a plausible corrollary of this ambivalence that warmth is constrained and coldness confined to the middle range. Aspiration does not appear to play a major motivational role in this pattern of child rearing.

Since we know that most single mothers are found in class 3 we conclude that the pattern of ambivalent

2 Relatively high IQ in conjunction with modal school achievement (or GPA), typical for this class as reported in the previous chapter (p. 125 s), may be taken to support this hypothesis.

child rearing practices represented by this configuration particularly fits the predicament of this group.

Let us return for a moment to aspiration. It should be recalled that, in fact, after the transformation of that dimension reported on p. 131 s, it is a category representing high level aspiration and, therefore, variations between classes in frequencies of highly aspiring mothers. It is the only one of our "dimensions" in which individual classes consistently occupy their "correct" rank order position — from lowest in class 1 to highest in class 6. As this variable is highly loaded definitionally with educational goal-setting by the mother for her school-age child, it appears strongly linked, via education, to social structure. The fit between class and high aspiration again points to the role that education plays in the dynamics of inequality: We have seen that educational attainment is highly class-related; the educational system, however, at least on the earlier levels of schooling, was shown to contribute to social inequality less than might have been expected. On the other hand, cognitive performance and school achievement was shown to be highly related to the class position of parents. The apparent contradiction between class-related educational achievement and attainment and the relative abstention of the school from class-based performance evaluation now can be tentatively resolved: Child rearing attitudes appear to function as motivational forces or energetic inputs guiding the child through an educational system that is responsive, rather than contributive, to this function.

The fit between high aspiration and class, nevertheless, remains intriguing. Why does high aspiration operate so closely to reality instead of attempting to intergenerationally compensate for unachieved status?To this question we have no answer. However, aspiration must refer to differences in collective orientations to the future. Class 6, with its characteristically high aspiration level, strives to conserve its position, inherited or achieved, through the educational goals that it provides its children with. A similar tendency is apparent in class 5, but presumably with less success. The data have revealed a marked discrepancy between aspiration and the scholastic achievements necessary to accomplish it. In the lower classes, the low level of aspiration seems to point to some sort of acceptance of their position in the developing social hierarchy. But we would expect different qualities in this acceptance for the two classes. Whereas class 1 is in an economically constrained, socially subordinate and insecure position, class 2 represents a skilled profession which is financially very well off, at least by Icelandic standards, and enjoys considerable prestige. Its members have risen, socially, from class 1, and achieved socially accepted status. Therefore perhaps they do not feel a pressing need for accelerated upwards mobility. Class 1, in some respect, represents a residual category that mobile individuals and groups have left for a different social fate which they have wrestled with and tried to master. Therefore we tend to interpret the absence of aspiration in this group as an indicator of resignation to collective fate.

If this interpretation is justified, our earlier findings about the inability of the school to compensate for social handicap through promotion of cognitive performance —in the sense of a pacemaker for development (Kohlberg and Mayer, 1971) — gives us reason to fear that inequality will, in future, rather increase than decrease. We shall, however, leave it to others to spell out the educational and social policy implications of these conclusions.

Finally we should like to return to the central question which this section of our report was designed to help answer. It concerns the validity of the "scale" or classification device for occupational and/or social inequality and its power to discriminate between the life-worlds of the groups that it serves to distinguish. Even though child-rearing patterns, of course, are only rather indirect representations of life-world characteristics or subcultures, they nevertheless relate to different styles of social life, to different attributions of meaning to social events, to different orientations to the future and to different action problems to be solved in given social contexts. Without repeating details, we feel fairly confident that the different configurations found in socializatory attitudes within the different groups or classes reflect subcultural differences. The quantitative relationships are in many instances still open to question, due, among other things, to the methodological shortcomings mentioned earlier. But better focussed research should be able to establish with greater confidence the linkage between social structures, socializatory rules and practices and the general developmental patterns and outcomes in cognition and personality.

9.
Class and Mental Health

It is a very general finding of epidemiological research on mental health and mental illness, both in children and adults, that health status varies with social class[1]. The original study from which this data is taken was designed as an epidemiological investigation of mental health in Reykjavik children (Björnsson, 1974). It appears natural, therefore, to use the mental health data as another test of the validity of our measures of social inequality.

But, besides serving a further validational analysis of class-related inequality, mental health can be looked upon as a correlate of socialization processes and child-rearing practices, which themselves are nested in the social matrix as demonstrated earlier. Just as cognitive development and performance patterns appear related to social structure via socialization processes that handle particular social action problems in class-(or subculture-)specific ways, so are other strands of personality related, via the socializatory matrix, to social structure. And although mental health, especially when defined by absence or presence of "symptoms", is not to be equated with personality, it still is a powerful indicator of its coping functions. And coping functions are particularly important to our argument since they can be conceived of as the mediators of the action potential of individuals confronted with the social action requirements generated in a given milieu (Haan, 1977).

The original study used five different operationalizations of mental health: Rorschach protocols, three different assessment procedures performed by different raters and a clinical evaluation of child's symptom load. It is this last one that we are using in the following reanalysis of the data[2].

The measure was constructed as follows: The clinical interviewer of the mothers was provided with a list of some 50 types of symptoms which covered the main bulk of the symptomatological varieties of psychosomatic, behavioral, neurotic, and psychotic problems. The mother was asked to report on all the symptoms with which her child had been afflicted since birth (the symptom list serving as a mnemonic aid). She was asked to describe each symptom, report the age of the child at its onset, and its date of cessation, when this was the case. The interviewer evaluated the degree of severity of each symptom on the basis of the mother's information on a three-point scale ranging from very slight symptoms to very severe ones.

These data were then used by an independent clinician for the definition of three categories of symptom load. Category 1 contained presumably well balanced children in good mental health. They were free of symptoms, and had no history of symptoms, or very minor ones of short duration. Category 2 covered fairly well balanced children, who were considered to be able to cope with their difficulties without help. These children might have a history of symptoms, but they had mainly outgrown them, or the remaining ones were considered to be harmless. Category 3 contained emotionally disturbed children, in poor mental health, who either had several symptoms or severe symptoms of long standing. These children were expected to need expert help.

For the classification of the children into these three groups the following was taken into account: a) the number of symptoms; b) the type of symptoms; c) the degree of serverity; d) the duration of symptoms; e) the constellation of symptoms; f) the age of the child. Table 58 lists the most frequent symptoms at the moment of investigation for each sex separately and for both combined.

Table 59 shows the frequency distribution of the three mental health categories mentioned above, based on the preceding symptom list, for boys and girls and both sexes combined, according to occupational class of father. Table 59a shows the results of chi^2 analyses contrasting the individual classes which, for both sexes combined, reveals significant differences between classes in line with previous analyses. As to sex-specific differences between classes, we shall return to these in the following.

The overall percentage of children in poor mental health is strikingly high (18.6 per cent). Almost one out of five children is afflicted with symptoms to an extent that he is classified in poor mental health, and in need of treatment. We shall return to possible reasons for the high incidence of neurotic symptoms when we have given the details of the distribution a closer look.

1 To mention but two authors from a vast literature: In their classical study Hollingshead and Redlich (1958) showed that psychiatric disorders vary with class. Jonsson and Kälvesten (1964), in order to establish the relationship between the mental health of Stockholm boys and social class of parents, used a three category scale of social class and a three category scale of symptom load, analogous to ours. They did not find any significant difference in mental health of the boys in the three social classes. On the other hand, when the relationship of the mental health of the boys to the economic situation (as measured by income) was assessed, it turned out that the sons of the poorest parents had significantly ($p < 0.05$) higher symptom-load than the others. - See also the critical review of research into class related emergence of psychiatric symptoms in children by Zigler (1971).

2 The reasons for this decision cannot be spelled out here. The reader is referred to the detailed description of the various measures and their comparison in Björnsson, 1974, pp. 248 ss. Summarizing the argument, the clinical evaluation seemed to yield the most balanced assessment of the child's mental health status.

Table 58: Boys and Girls with Psychological Symptoms. Active Cases at the Time of the Investigation (in %)[a]

Type of symptoms	boys	girls	both sexes
Sleep disturbances	3.6	3.2	3.4
Eating problems	3.5	5.7	4.6
Nervous stomach disorders	3.6	6.2	4.9
Nervous headache	3.5	5.5	4.5
Allergies	3.6	3.6	3.6
Enuresus	8.4	6.6	7.5
Encopresis	2.2	2.6	2.4
Hyperactivity	0.6	0.4	0.5
Passivity	3.6	1.2	2.4
Stereotypy, tics, etc.	4.2	3.0	3.6
Nailbiting	7.3	8.1	7.7
Thumbsucking	0.7	0.7	0.7
Speech-problems	7.8	2.6	5.2
Contact difficulties	9.6	8.6	9.1
Sensitivity, shyness, anxiety	30.4	30.2	30.3
Phobic reactions	2.4	3.0	2.7
Aggressive-destructive behavior. Temper tantrums	5.5	2.5	4.0
Undisciplined behavior, negativism	8.9	5.1	7.0
Truancy from school*	0.2	0.2	0.2
Vagabondage, running away	0.8	0.6	0.7
Lying, fabulation	0.8	0.0	0.4
Stealing	0.8	0.2	0.5
Inhibition, concentration difficulties*	3.8	2.2	3.0
Reading and writing problems*	11.5	4.3	7.9
Adjustment in school*	6.3	3.7	5.5
Behavioral problems in school*	0.8	0.2	0.5

[a] From Björnsson 1974.

* N = 800 (children of school age).

As was the case for the child rearing patterns, the overall relationship with class is slight. But nevertheless, it approaches significance for the individual sexes and reaches it for both sexes combined. This is all the more astonishing when we take into consideration that, in fact, only the "poor" category shows clear cut class differences. And it is on that category that we shall mainly base the following interpetation.

Let us look, first, at the figures for both sexes combined. After the previous section it does not come as an unexpected shock that classes 1 and 6 differ greatly in mental health. This is an expected outcome in view of the outstanding differences in child rearing patterns between these classes.

Basically, the discrepancies between these classes in economic opportunity and cultural life-styles contribute as much to the ease of one class as to the predicament of the other. Neither is it astonishing to find class 5, with children often subjected to high stress and harsh rearing conditions, frequently exposed to inconsistent socialization styles and, thus, to contradiction, between internal and external experience, to be afflicted with emotional disorders to a considerable extent (19.3 per cent). Analogously class 3 appears beset by a considerable amount of mental health disorders. We have seen that the child rearing pattern which is "typical" for class 3 is wrought with contradictions. These had not appeared so conspicuously in the cognitive performance dimensions studied earlier. Class 4, again in accordance with expectation, comes closest to class 6, with a symptom load far below the mean. Class 2, however, is intriguing at first sight. In the child rearing pattern typical for this class, a warm, stable and relatively unstressed climate seemed to be characteristic for parents' mode of interaction with their children. Yet the symptom load is almost as high as in classes 3 and 5, and very near to the arithmetic mean of all classes. We shall return to this in a moment.

When turning to sex differences in symptom load (referring only to the "poor mental health" category) the picture becomes both more complex, and, in some respects, clearer. Obviously, different social classes provide the sexes differentially with symptoms. However, the overall sex difference (with girls in somewhat better mental health than boys) is not overwhelming, as both the symptom list (table 58) and bottom row in table 59 bear out.

Table 59: Mental Health Ratings of Children by Occupational Class of Father

Occupational class of father	% (N)	mental health categories good	fair	poor	total	
		boys				
1	%	48.6	21.2	30.1	100	
	(N)	(71)	(31)	(44)	(146)	
2	%	61.4	19.9	18.7	100	
	(N)	(102)	(33)	(31)	(166)	
3	%	64.3	21.4	14.3	100	chi^2 = 17.9823
	(N)	(36)	(12)	(8)	(56)	df = 10
4	%	62.8	19.2	17.9	100	p < 0.10
	(N)	(49)	(15)	(14)	(78)	C = 0.16
5	%	61.7	17.0	21.3	100	
	(N)	(29)	(8)	(10)	(47)	
6	%	68.8	20.8	10.4	100	
	(N)	(33)	(10)	(5)	(48)	
T	%	59.1	20.2	20.7	100	
	(N)	(320)	(109)	(112)	(541)	
		girls				
1	%	63.4	18.3	18.3	100	
	(N)	(90)	(26)	(26)	(142)	
2	%	59.9	20.9	19.2	100	
	(N)	(103)	(36)	(33)	(172)	
3	%	62.3	13.2	24.5	100	chi^2 = 16.5782
	(N)	(33)	(7)	(13)	(53)	df = 10
4	%	78.0	15.9	6.1	100	p < 0.10
	(N)	(64)	(13)	(5)	(82)	C = 0.16
5	%	66.1	16.1	17.7	100	
	(N)	(41)	(10)	(11)	(62)	
6	%	77.2	17.1	5.7	100	
	(N)	(27)	(6)	(2)	(35)	
T	%	65.6	17.9	16.5	100	
	(N)	(358)	(98)	(90)	(546)	
		both sexes				
1	%	55.9	19.8	24.3	100	
	(N)	(161)	(57)	(70)	(288)	
2	%	60.7	20.4	18.9	100	
	(N)	(205)	(69)	(64)	(338)	
3	%	63.3	17.4	19.3	100	chi^2 = 19.9866
	(N)	(69)	(19)	(21)	(109)	df = 10
4	%	70.6	17.5	11.9	100	p < 0.05
	(N)	(113)	(28)	(19)	(160)	C = 0.13
5	%	64.2	16.5	19.3	100	
	(N)	(70)	(18)	(21)	(109)	
6	%	72.3	19.3	8.4	100	
	(N)	(60)	(16)	(7)	(83)	
T	%	62.4	19.0	18.6	100	
	(N)	(678)	(207)	(202)	(1.087)	

Table 59 a: Mental Health Ratings of Children by Occupational Class of Father: Chi² Analysis of Contrasts between Classes

Class	boys				girls				both sexes			
	chi²	df	p <	C	chi²	df	p <	C	chi²	df	p <	C
1 : 6	8.295	2	0.02**	0.20	3.642	2	0.20	0.14	11.044	2	0.01**	0.17
1 : 5	1.967	2	0.50	0.10	0.159	2	0.95	0.02	2.267	2	0.50	0.07
1 : 4	4.927	2	0.10(*)	0.15	7.409	2	0.05*	0.18	10.631	2	0.01**	0.15
1 : 3	6.228	2	0.05*	0.17	1.348	2	0.50	0.08	1.854	2	0.50	0.06
1 : 2	6.616	2	0.05*	0.14	0.372	2	0.90	0.03	2.725	2	0.30	0.07
2 : 6	1.841	2	0.50	0.09	4.701	2	0.10(*)	0.15	5.834	2	0.05*	0.12
2 : 5	0.285	2	0.95	0.04	0.871	2	0.70	0.06	0.820	2	0.70	0.04
2 : 4	0.043	2	0.98	0.01	9.885	2	0.01**	0.19	5.414	2	0.10(*)	0.10
2 : 3	0.563	2	0.80	0.05	1.868	2	0.50	0.09	0.472	2	0.80	0.03
3 : 6	0.391	2	0.90	0.06	5.283	2	0.05*	0.24	4.446	2	0.10(*)	0.15
3 : 5	0.997	2	0.80	0.09	0.579	2	0.80	0.07	0.034	2	0.99	0.01
4 : 6	1.317	2	0.30	0.10	0.032	2	0.99	0.02	0.652	2	0.98	0.05
4 : 5	0.253	2	0.90	0.04	4.998	2	0.10(*)	0.18	2.810	2	0.30	0.10
5 : 6	7.175	2	0.02**	0.23	2.816	2	0.30	0.17	4.448	2	0.10(*)	0.15
3 : 4	0.356	2	0.90	0.05	9.470	2	0.01**	0.26	2.896	2	0.30	0.10

Significance levels starred for convenience: (*) $p < 0.10$, * $p < 0.05$, ** $p < 0.02$.
See table 27 a, note *, p. 83 for justifications of chi² analysis of pairwise contrasts in spite of attenuation of significance levels.

The social classes differ markedly in the way symptoms are distributed between the sexes within class. (See also the analysis of pairwise contrasts between classes by sex reported in table 59a). Thus, in class 1, boys are far worse off than girls, although these cannot be considered in very good mental health either. Almost every third boy in class 1, is in poor mental health while, for example, only every twentieth class 6 girl is similarly afflicted. (In this computation we do not take the nature of the symptoms, nor the differential chances for treatment into account.) The particular predicament of class 3 girls may appear somewhat unexpected. Overrepresentation of single mothers in this group — a fact already mentioned in connection with the interpretation of the child rearing configuration typical for it — may have something to do with it. One might expect the identificatory processes of sons without fathers to be less amenable to a happy solution than that of daughters without fathers. Family dynamics, however, probably is more complicated than often assumed. In the case of the single mother, it must be related to her socially defined situation as well as to sex role definitions for children in the culture. The single mother in Iceland is not ostracised, nor does she lose her social esteem. But her share in the economic opportunities is very restricted, and because of low average educational status and the restrictions in sociability that go with her heavy workload and her multiple role requirements she often has a hard time fighting against the odds in spite of being socially accepted. But why these circumstances might affect daughters more adversely than sons still remains a matter of speculation. Moreover, the proportion of poor mental health attributable, in particular, to that fraction of class 3 that is constituted by single mothers is far from clear.

In class 5, the situation of sons, as compared to daughters', appears even more constrained — as one might have hypothesized from the child rearing data as well as from the performance patterns discussed earlier. High aspiration in conjunction with a consistently controlling rearing pattern would be expected to affect sons more than daughters, with whom less is at stake socially: it is sons who run the risk of downwards mobility (cf. tables 53 and 54, p. 123, for evidence of downwards mobility in class 5).

Classes 4 and 6 reveal an interesting and somewhat unexpected difference. Although girls, in both classes, are similarly low in symptom load, the boys in class 4 are much worse off than those of class 6. At present we have no other explanation for this phenomenon than stressful differences in social expectancies for class 4 sons, for whom a professional career is within reach, yet not without considerable exertion on the part of the family as the social unit of mobility. For girls, this career pattern is much less in evidence, as the relatively moderate participation of girls in higher education demonstrates.

Finally, we return to the unresolved problem of poor mental health in class 2, with, moreover, insignificant differences between sexes. For this class, we have contradictory data to speculate on. On one hand, the child rearing configuration appears rather favorable to well adjusted, unstressed development. We therefore would have been tempted to predict a lesser symptom load for this class. On the other hand we know from the mobility data discussed earlier in this report that class 2 has contributed very significantly to the overall upwards mobility of the total society during the past decades. From this data one might perhaps predict rather stressful developmental careers for the children, particularly the boys, originating from this class.

On the other hand upward mobility has not, generally, been reported as a predictor of negative socialization consequences or failure. Rather, from the little we have found the research literature to report about the relation between upward mobility and social psychological characteristics of individuals affected by it, the contrary appears to obtain, at least with regard to aspiration (Bean, Bonjean and Burton, 1973; Hollingshead and Redlich, 1958). The literature remains largely silent, however, as to the effects of mobility on the psychological structure and the personality development of the children of those affected by mobility. By extrapolation from the literature on mobility that at all refers to social psychological factors (Bean, Bonjean, and Burton, 1973; Hollingshead and Redlich, 1958; Jackson, 1962; Jackson and Burke, 1965) we hypothetically trace the seeming contradiction to the fact reported earlier (see section 4.3) that class 2 contains the highest proportion — by far — of downwards mobile individuals. It seems plausible to speculate on the effects of status inconsistency in parents on the mental health of their children, on the anomic and stress generating function of contradictory reference group orientations with regard to disequilibration of the family system. We could not test this relationship in our study, and as borne out by the paucity of relevant literature, it appears to be a field much in need of study[3].

3 Due to the construction of the variables representing socialization dimensions (see above, ch. 8), which make use only of the extreme category on each dimension in order to construct "pure types", downwards mobile families less typical of the class in which they are contained may not have affected its profile as presented above, hence the apparent contradiction.

Our discussion of the incidence of poor mental health has relied heavily on an implicit causal hypothesis, linking emotional disorders to changes in the social structure. More precisely, we tend to hypothetically relate the incidence of imbalance in personality systems to strains induced by modernization, detraditionalization, and mobility. Although this is, to our knowledge, a rather unusual way of looking at mental health problems in children in the research literature, we can hardly avoid this inference, when considering the overall configuration of our data. We are well aware, however, that this inference is speculative, and in need of substantiation.

Both the mental health and the cognitive data showed sex-related patterns that point to the importance of development of sex roles. The emergence of sex roles is intricately linked to child rearing practices on one side, and to the functional demands of the society on the other(Maccoby, 1966), and we know that these are undergoing the rapid change that we have endeavored to describe in the first half of this report. We might have been able to better substantiate our contentions, had we possessed socialization data geared to this purpose. Such data might have furnished the missing link between the macrosocial characteristics, in which, we are led to assume, the emergence of sex roles and their functional definition in the course of development must play a decisive role. Unfortunately our socialization data, due to the construction of the variables on the basis of extreme values, did not allow for tabulation by sex.

However, the intriguing incidence of disorders in those two classes which, on the basis of the child rearing data, were expected to be most free from them provide a hint as to a possible causal pattern operating in the overall incidence of neurotic disorders in children — a pattern not amenable to explanations merely in terms of class. We have underlined modernization and mobility and its economic and demographic correlates as the main feature characterizing structural change in Iceland since World War II. The second part of this report has gradually extracted a pattern of cognitive and personality correlates of system change from the data. The mental health problems of the Reykjavik youth population that can be read from the data are now, or will soon be, problems of the adult generation. It may well be that, besides class-specific patterns, the strikingly high overall incidence of poor mental health besetting the population is the prize for unhampered modernization, an alienation phenomenon operating at the heart of the modal personality. Thus, even under favorable conditions of socialization in individual families or groups the overall symptom load would still be high. In this view, low incidence of affective disorders would rather bear witness to a group privilege of compensation for social change than to the effects of socialization towards a coping model of personality. The present study has not been designed for policy purposes. But the patterns of structural as well as of inner imbalance emerging from the data provides a picture of stressful inequality. Moreover, from a policy-oriented or socio-diagnostic point of view, it provides intimations of severe social problems, as yet only dimly recognized in the country. No social policy has yet been formulated to cope with such problems or even to make systematic use of research generated data for policy purposes. Perhaps it is time to begin to formulate social policies that take into account the specific modernization fate of Icelandic society and the vicissitudes of cognitive and personality development to which these processes subject its members.

10.
Summary and Conclusions

Before discussing results and possible conclusions, a brief recapitulation is in order.
The analyses were carried out on a sample of 1.100 Reykjavik children aged five through fifteen, born between 1950 and 1960, one hundred in each age-group, equally divided between sexes. GPA was collected for all children until they graduated from upper elementary school after eight years of schooling, the youngest age group in 1973. Data on the final educational attainment of the four oldest age groups were collected in 1975, when they were interviewed again, then 22 to 25 years old.
Data on family background, child rearing habits and further information about family ecology were collected in interviews with the mothers. The mean age of parents at the time of birth of the child under study was between 30 and 31 years for fathers and roughly 27 years for mothers. Thus, the birth of the parents are mainly located in the 1920s. In order to assess family background and structural as well as individual mobility, mothers were asked about grandparents' community origin, occupational class and education. This takes us back to the generation born about the turn of the century. Thus the various data collected in the study in some respects cover the present century.
To be sure, the data is not homogeneous for this long time span. But it is intergenerational and continuous, and it offers the potential for an ecological study that covers micro-, meso-, and macro-dimensions (Bronfenbrenner, 1977) *over time*. It is a set of data that could open access to life span developmental processes both within and across generations, as they are nested in developing social structural networks.
The focus of the present analyses, of course, was much more restricted. Technically, the objective of the study was to scale social class in Iceland and explore class-related structures, in particular the differential impact (widely denied in Iceland) of social class on child rearing patterns of parents, level of cognitive functioning, educational achievement, and mental health.
These latter were taken to be preliminary indicators of cognitive competence and personality functioning. Our main goal was, in other words, to explore such facets of a developing system of social inequality as influence the growing individual. "Ecologies of human development" (Bronfenbrenner, 1977) are themselves conceived of as emerging in function of change in the social structural matrix. Research is needed to trace the emergence of such ecological patterns. Ours can be seen as a preliminary attempt in this direction. It is preliminary only, because it mainly uses cross-sectional analysis, and infers the changes from their results. Future research should make more use of cross-temporal, i.e. longitudinal or developmental designs.
We pursued our objective in two complementary directions: One focussed on the elucidation of the macro-structural context, the other, rather conventionally, on interindividual variations in various cognitive, affective and educational dimensions in function of the elements of the macro-structural context. It is the *pattern* of the data produced by proceeding in these two interrelated directions that our interest centers on. This pattern offers a picture of an emergent class structure that expresses itself, among other things, in cognitive , socio-educational and socialization terms. From the developing individual's perspective, the picture is one of growing up in a system of unequal chances for competence in spite of maximum equality of educational and economic opportunities. We are interested in the psycho-social constitution of developmental ecosystems, which, in this one case at least, seem to function in partial independence of the parameters of the system of material life chances. In a preliminary way, we hope to open up avenues towards ecologically valid developmental research in a structural perspective. We believe this is a worthwhile endeavor in a society, which, for the various historical and systemic reasons described earlier, may provide answers to a number of theoretically relevant questions not easily answered in more traditional research settings. Such questions are for example: What is the impact of the sudden disruption of traditional settings of child rearing on the emergent personality systems affected thereby?[1] What are the differential modes of coping with such changes? How are common-sense theories of child rearing constituted or reconstituted under pressure from intensive or even disruptive changes, and what are their effects on action and interaction? To what extent is cognitive, affective, and ego development of children affected by the differential impacts of change in different locations in the social network (and how can "relevant" locations be defined in theoretically adequate terms)? Is there a way to assess interactions between structural change and the development of "modal personalities" growing out of social change?
Besides these long-range questions of theory there are, of course, a number of pressing practical questions — both middle-range and long-range. What, if anything, is happening in the schools? What is the impact

1 "Settings of child rearing" could be defined by the social action requirements of the educational process and by the attribution of meaning to that process by those concerned no less than by "the factors of place, time, physical features, activity, participant and role" which Bronfenbrenner (1977) draws on for definition.

of schooling on cognitive growth? How are failures in the schools related to those emergent ecologies of child rearing and development in the metropolitan area that have less than beneficial impact on cognitive and/or affective growth? Does modernization, does social-structural development victimize specifiable groups of children (and adults) who unwittingly carry the burden of progress? Do we need social policies to cope with the contradictions of social development? Are there potential intervention strategies capable of mitigating their effects? What do we need to know, in order even to be able to assess the applicability of foreign experience to Icelandic conditions? And, more ambitiously, what are potentially generalizable aspects of the Icelandic modernization experience?

Evidently, our analyses do not provide answers to such questions. But the constellation of social facts that emerges from the data makes it even more urgent that such questions be asked. The thrust of change in the total system was salient to the commonsense of observers even without research. What is new is the systematic relationship that obtains between the system of social inequality produced by rapid modernization in a few decades, and the system of cognitive and affective privilege and, conversely, deprivation emerging with modernity. We now can perceive the conflict between traditional goals set for child rearing and education, and the requirements that the child rearing and educational systems would have to attend to were they really to cope with the new set of problems. But in spite of progressive school laws and perceptive educational reforms we have hardly begun to design strategies for building such coping capacity into the social institutions. On the contrary, we see that growing discontent with the symptoms and consequenses of modernization tends to lead to a disaffection of the educational sector, to growing impatience with reform (and its fiscal requirements!), and to political interpretations that mistake the symptoms of crisis in the social system for the products of reform. These powerful — and popular — conservative reactions tend to substitute the recent surface structures for the deep structures of the social evolution of the country. Thus they remain blind both to the real problems and to the urgent need for social policies to cope with them. Yet such insights, if they came at all, would come *before* the division between "conservatives" and "progressives" and be common to both.

The reactions, though, are understandable enough. They are aroused by a profound malaise due to the change in the deep structures of the collective identity. It is the surface indicators of this change which provoke anger, objection or helplessness. To cope with them would call for modes of action quite different from those that political experience and administrative routine are used to. Our current conceptualizations of action are geared to policies designed to affect the lives of circumscribed groups and to solve circumscribed problems: relief programs, head start programs, intervention or subsidy policies. The general malaise, as well as the maze of interrelated social problems that is becoming visible in our data calls for a much more general scope for social policy. Modernization, it seems, has played social and psychological havoc not only with fringe groups. It has transformed and disequilibrated the entire social system. Change, certainly, was inevitable but its effects were unexpected and so far we have not evolved rational strategies to cope with them. What we apparently need is social policy for coping with the consequences of change as they affect the society at large simultaneously with particular segments of special concern.

Little is known about the scientific and political prerequisites for the formulation and implementation of so general a policy. But its very generalness probably provides us with a prototype problem both for the specification of social research and for the relationship of that research to policy making (Edelstein, 1974; Bottani et al., 1977).

Before proceeding further into the realm of the practical, let us summarize the main results to be culled from the report.

a) *Construction of a scale of occupational class.* The *technical objective* of the study, the scaling of class by means of a classification of occupations has been achieved. Meaningful variations turn up in each and any variable that is subjected to analysis with the help of the new instrument. The very consistent patterns across variables that emerge from the analysis and that characterize given positions on the scale seem to warrant the inference that such positions are indicators of life-worlds or subcultures linked to the occupational structure. This statement has to be taken with due caution, however, as the precise relationship between the occupation or class system and the structure of life-worlds or subcultures is far from clear. From the pattern of covariations with class the contours of life-worlds begin to be dimly perceived. This again can only be understood on the basis of the multi-dimensional definition of class used here; a definition which implies culturally valid assessments both of the nature of work, the authority and responsibility aspects of the job, its educational requirements and certain prestige and income correlates.

b) *Contradiction with and support of equalitarian patterns.* There is no need to recapitulate here the details of the classification of occupations operated with the help of the scale. But perhaps it is reasonable

to recall that the scale represented the hypothesis, formulated against prevailing common sense theories in Iceland, that the development of a modern economic system had created, together with new patterns of division of labor in the society, a system of social inequality that was deeply different from the previous state of social organization. Wheras Icelanders had viewed, and still tend to view, their post-agrarian society as a widely equalitarian community and base this contention on the heritage of values, ways of life and modes of thinking (including patterns of child rearing) characteristic of autonomous and self-reliant stray settlement farmers, the data, to a considerable extent, contradict the supposedly unimpaired survival of equalitarian patterns of culture. Yet they do also provide empirical support for the conservation of the "myth of equality" (Broddason and Webb, 1976), inasmuch as the opportunity structure in a hypermobile society is experienced as open, the upper classes have relatively low self-recruitment ratios, a substantial proportion of upwards mobile individuals of lower class origins is represented within them, and the educational system is only gradually consolidating its selective function. Thus, the vigorous stratification processes that transform the society (in close correspondence to the functional differentiation of the occupational role structure called for by the emergence of a modern industrial system) ideologically mask the system of inequality that they produce.

c) *Pervasiveness of class differences.* One indicator of the stratification dynamics is the amount of intergenerational mobility between grandparents' occupational class and fathers'. (As a matter of fact, mobility is measured only between family status at the time of fathers' birth and fathers' occupational class position at the time of the interview, in midlife, when mobility may still continue.) As almost half of the fathers are upwards mobile as against less than 15 per cent downwards mobile individuals, mobility itself helps create the illusionary image of unrestricted equality of opportunity which the data contradict. Like a densely knit fabric the ubiquitous texture of inequality spreads throughout the social system. The innocent appearance of more differences between life-worlds quickly gives way to the concept of different life-chances or opportunities. Covariations of class and indicators of individual qualification or subjective life quality are consistent and pervasive: class and educational attainment, both of household head and wife; class and the disparity of educational attainment of husband and wife; relative educational deprivation of wives increasing with class position; class and family size; class and child rearing habits of the mother. Class and cognitive performance of children as measured by IQ (whether verbal, performance or total); class and school achievement as measured by GPA, whether early or late in schooling, but increasingly so with growing age; class and children's mental health. The picture forces us to look across the material infra-structure of class for the psychosocial structure of inequality. And if we do not accept a purely biological view of the conditions that determine peoples' lives we have to look for the missing link between elements of the social structure and the functioning of personality.

Nothing, perhaps, appears very astonishing about the monotony of these associations between class and indicators of "individual life quality". They have their analogs in other societies, the pattern strikes a familar ring. Yet — besides the obvious difference in relevance for the insider of the culture and the outsider — there are a number of less usual features. *First*, the background perspective of equalitarianism, the contradiction between social fact and self-interpretation. *Second*, the historical abruptness of the development, the rapid if unconscious separation of subcultures in spite of the highly unitary culture prevailing wellnigh into the present. *Third*, the cognitive role of the school system in the stratification process: it is not so much a hidden curriculum or socially biased evaluation of achievement that appears to mediate class-related handicap, but the very structure of cognitive requirements. *Fourth*, the absence of poverty, of slums and ghettos, of ethnic or cultural underprivilege. The question raised by this fact is: How does the process of stratification operate and push its ramifications into the cognitive, affective, and interactional constitution of the person, if material conditions of life do not play a major role in the process? While the social constitution of even individual characteristics is forcefully brought home by the data, the mechanisms that generate the structures underlying the surface covariations inspite of all our theoretical endeavors mostly remain but metaphorical. *Fifth*, the extent and clarity of the pattern, the wealth of meaningful detail it offers, the apparent absence of opaque and uninterpretable data, while simultaneously remaining unaccessible to, or repressed from public consciousness, including that of most educational professionals.

d) *Three underprivileged groups.* Three salient features accentuate the generalized patterns of social inequality (or, more cautiously, "the pattern of covariations between occupational class and the socio-ecological and cognitive variables under study"). These features describe the major realms of underprivilege in the society. Underprivilege obtains, *first*, and most generally, among women and girls. In practically any dimension their scores are lower than those of the socially corresponding males. Moreover, their — relative — handicap increases with the class position of their families. The few reversals of this trend (in certain IQ ranges in the entrepreneurial class; in symptom load) help understand

the process at work as the complex product of male achievement orientation (with correspondingly differential press on boys and girls) and educationally underprivileged role models for girls. Of course this is a vastly complex process simplified excessively in our formulation.

Underprivilege obtains, *second*, for children of the lower classes, particularly the blue collar working class. They uniformly score lowest on all dimensions and are exposed to more negative socio-ecological and psychological conditions, on the average, than any other group. The number of siblings, problematic and inconsistent rearing practices including low aspiration, high control and laissez-faire disengagement on the part of mothers, more frequent low IQs and much less frequent high GPAs at school and, last not least, disturbingly negative mental health status, are descriptive of a working class syndrome that is all the more disquieting as it can hardly be attributed to conditions of poverty or economic deprivation. The process of stratification has apparently produced among the working class a milieu or climate of alarming socio-cultural and psychological deprivation. And although certainly these findings should not be generalized to "the working class" it is obvious that within the working class society is confronted with a structural problem with long term consequences unless very encompassing policies are designed to counter them.

Society, in the guise of the working class, is confronted with itself — with the alienating consequences generated by its own socio-economic development. Insofar the findings relating to working class children in fact rather accentuate the overall impression emerging from the data. We hypothesize that the pattern of unequal chances, in conjunction with an almost unrestrained quest for success (as evidenced by mobility rates, but also by economic behaviors and consumption patterns) maximizes the cost for the children by withdrawing parents — with historical excuses to be sure — from socializatory interaction and communication with them (Bronfenbrenner, 1974). The effects, one may hypothesize further, may in future come to be felt in terms of anomic strains in the social order.

Underprivilege, *third*, obtains in the group of children from the entrepreneurial class. This is a rather particular set. While those discussed previously appeared as victims of mobility inasmuch as they are residual groups, left behind in the race forward and upward, the latter appear to be handicapped in spite of, or as a consequence of, their parents' success. Thus they pose a number of interesting problems: Do life-world characteristics of the working class (from which many entrepreneurs have risen) persist in the entrepreneurial milieu? Is it a peculiar effect of utmost mobility — both of rate and social distance covered — if restrictions of competence afflict children in terms of "under-performance" (when compared to the rank order position of their class)? Is it a special case of pressure towards achievement with insufficient socializatory support? This hypothesis derives some plausibility from sex differentials in IQ and GPA that reverse the usual order between the sexes, pointing to increased pressure on boys. Additional support may be adduced for the general hypothesis of inconsistency in the entrepreneurial life-world from the child-rearing configuration characteristic for this group: high control and high consistency in conjunction with low permissiveness and low warmth. This configuration appears to combine elements from the set of child rearing practices common in the high-achieving administrative-professional élite with elements more characteristic for the working class milieu. Finally, does the entrepreneur children's handicap perhaps only spell out with exaggerated clarity, as it were, the predicament of "excessive" mobility? Is it but a special expression of the "detraditionalization" syndrome confronting a society that operates its transition from a precapitalist economy to highly developed industrial organization (Marx, 1867, (1972), p. 391 ss)?

If this were the case, the particular dilemma of this particular group is, like the previous ones, but a representation of the general predicament. It is then generated by the dissolution of the socio-cultural models under the impact of new ways of production, association and exchange. We have pointed out that the relative wordlessness of earlier socialization practices (however functional in the rural setting), because of the absence of "everyday theory" or "talk about education", tended to conceal from the subjects' awareness the functional inadequacy of the old models under urban conditions. The perpetuation of the form went together with an elimination of the function. And, contrary to an adaptive theory of socialization, either in a Durkheimian or in a Parsonian vein, no hidden curriculum seems available in many cases to respond to adaptive demands and "implement" the competencies needed for adequate functioning under the new social conditions.

One crucial difference between the haves and the have-nots appears to reside in their differential capability to avail themselves of the cognitive potential of the educational system. Collectively, this difference seems linked, to some extent at least, to the rate of family mobility, or in other words, to the capability to entertain long-term (versus short-term) orientations. This is only a speculative hypotheses at this point, but it finds some support, besides theory, in a trend towards higher scores for children of less than extremely mobile families that is emerging from new research by the authors. In the published data a

corroboration of this contention may be seen in the differential impact of a two-generation type mobility versus the within-generation jump: The higher proportion of upper class members originating from villages points to a stabilizing effect of a two-generation model of social mobility (as the villagers also originate from stray settlements, only one generation earlier). And we have seen that family interaction and socialization styles in the upper class are favorable to development (as far as our indicators can be taken to measure this).

Summing up, then, of the three cases of special underprivilege each seems to represent but a special case of the general pattern that appears and reappears in our data. They are but the most conspicuous elements of the pervasive structure of socio-educational, socializatory and cognitive inequality that characterizes the social system as it is transformed from a predominantly rural culture into a highly developed industrial society.

Let us return, finally, to the question of practical consequences. Does it befit the researcher's stance to draw practical conclusions from the results of his studies? Ours were not undertaken with practical action or advice to policy makers in mind. But nevertheless we cannot help feel impressed and depressed with the practical relevance of the findings. They point to problems of children in the school, to questions of the socializing potential of the family; to problems also of increasing alienation and economic anomie throughout the social fabric.

Of course such problems exist all over the industrial world. But more and more two connected dilemmas engaged us as they became clearer to us while we were working on the analyses and discussing their results. One is the relation of our problems to social change. Or, to put it differently: The effects of stability and change in social systems and meaning patterns on human development and personal identity. The other is the state of public awareness of the nature of the social problems that confront society.

We have already touched on the former dilemma. It is obvious that it requires extensive theoretical treatment. In the present context, we can only pull together a few hypothetical statements calling for further elaboration and research.

As previously mentioned, we have observed unusually rapid change from rural patterns of culture to urban and industrial ways of life. The former involved cooperation and solidarity in production and consumption, in work and in the raising of children. Industrial ways of life involved, among other things, division of labor and functional differentiation of roles as well as the substitution of family-centered work and socialization habits by the organization of segmented functions in the economy, the education system and in peer groups. The transformation and innovation of social structures, we believe, has led to the sudden discontinuation of the normative pattern of the interactional culture. We further believe that this discontinuation has occurred, in particular, at points of transition between generations; and that it can be reconstructed as a loss of function (an"emptying") of socialization processes and child rearing practices. Finally, we think that this loss of function could pass unnoticed because of the traditionally "silent" nature of education in the family. Divorced from its functional content, the form could be maintained. The supposedly independence-oriented rearing practices thus may have provided the experience of alienating deprivation while parents in good faith may have felt that they entertained the child-centered orientation of their own parents. Pseudo-independent self-regulation may produce a very flexible social character, highly sensitive both to the consumption needs and the innovation demands generated in the economy. It may also produce cognitively and affectively deprived individuals. Innovativeness as well as alienation and anomia may be seen as conjoint consequences of the push of objective social forces and the pull of socialization practices conforming to their thrust.

Such statements, to be sure, are overgeneral and in need both of refinement and specification. They serve the theoretical construction of an ideal type rather than empirical description. However, they pinpoint the crucial role of mobility processes as necessary if insufficient conditions and explanatory constructs linking macro- and micro-dimensions in a type of socialization research that does not restrict is scope to the explanation of individual differences but includes the analysis of social character among its objectives.

The second dilemma follows from the first. As the change depicted above masks its consequences and corollaries to the social actors, they are likely to entertain a mystified notion of social integrity while the symptoms of the malaise are attributed to recent surface adjustments in institutional settings — mainly to "progressive" reforms. We believe that besides mistakes in the design and implementation and a number of unanticipated consequences of reforms in the past decade this substitution of symptoms for causes is one of the principal obstacles to political support for structural reforms — not only in Iceland but quite widely throughout the western world today.

We have argued above that, in Iceland, the myth of equality (and, deriving its vigor from it, the illusionary integrity of the cultural heritage) gains permanence through partial repression of contradictory evidence

from public consciousness. Thus, the emerging inequality and its multifaceted cognitive and personality corollaries are kept in a state of latency in the collective unconscious of the nation. Again, the sudden transition between the pre-industrial culture and the industrial order offers a partial explanation: Analytical tools scarcely could evolve for the rational reflection of social change and social problems; social roles could hardly develop to wield such tools. Or, rather, the pull of socio-economic expansion and the compulsion to adjust to growth (and inflation) all but washed away the frail surviving or premonitory roles of social criticism, political or analytical, that might have been able to anticipate the consequences of transition in a non-romantic mood.

In our opinion, it is mainly three sets of roles in whom the failures of recognition prove most consequential: parents', teachers', and politicians'. Considering the data, the lacunae in parents' consciousness are almost self-explanatory. Parents are caught in the very processes that we expect to be underlying our data. As social objects they have little intrinsic potential to free themselves from the economic and social forces that urge them on. And least of all can they be expected to reflectively distance the prevailing patterns of living as pressing action problems and shared experience confer general legitimacy on their conduct. There seems to be a feeling of malaise, but it remains latent, uninterpreted and intangible.

More problematic, it appears to us, is the teaching profession's deficit of recognition as they encounter the full thrust of the cognitive and motivational consequences of change. However, the professional role of the teacher does not appear to entail, so far, a social, let alone genetic understanding of the schools' and pupils' predicament. Their professionalization is technical, rather than psychological, and traditionally even their instructional roles appear conditioned to fixed content rather than to mastery of process. Of late, caught in the maze of change that imperils their traditional repute, the struggle for social and financial recognition tends to supersede teachers' interest and participation in the development of educational policy, and, by implication divorces the former from the latter.

Considering the very recency and weakness, but also the inner divisions of a socially informed scientific community in the country together with the absence of the teaching profession from the political dialog, no politically relevant force appears available to express the developmental dilemma. Neither is there a professional critique of the prevailing conditions of human growth. The set of political roles entrusted with recognition functions therefore remains free from pressure towards awareness of the nature of the crisis in sizeable sectors of the social ecology of human development. To adopt a Piagetian metaphor: The cognitive, social and political schemas needed to help identify and assimilate problems of alienation, anomie and restriction of competence appear largely unavailable to relevant professional or political groups. Prevailing cultural interpretations rather seem to prevent accommodation to new social experience.

Perhaps it is difficult to realize that problem solving organizations like political bodies in reality behave like nonreactive systems. But perhaps this is understandable, considering the scope, relevance and novelty of the demands on these bodies. This, again, seems to be an almost universal predicament, and perhaps even the analysis of highly specific problems of a particular country, after all, has nothing very specific about it. More or less all industrial societies are confronted with problems of continuity and change, alienation, anomie and reconstruction. For all of them, it appears vital to formulate social policies that salvage collective identities while solving practical problems in long-term perspective. For all of them this is a problem of consciousness and legitimacy no less than social action. Research, to be sure, cannot substitute action, nor can scientists presume to define social policies in the manner of technocrats. The division of labor between research and policy-making should not be abolished lighthandedly. However, it is clear that our findings do indeed entail implications for social policy. Among the foci of concern that our data disclose let us mention but group underprivilege, the apparent socializatory weakness of many families, problems of the single mother, and the conspicuous helplessness of the school in dealing with socially generated cognitive handicap. These are no easy problems and as they appear to be interrelated expressions of fundamental strains in the social system that are due to its transformation, nothing less than a truly social, i.e. integrated policy can be expected to do the job.

Yet it is worth repeating that these analyses were not undertaken in view of practical problem solving. Our work is preliminary and exploratory, the explanatory framework comes post hoc and remains hypothetical. The research is neither focussed enough nor the results sufficiently well established to serve uncritically as a base for action. Their most useful function would be to arouse awareness of the need for social policies that, ultimately, might refute them.

11.
Appendix

Some Basic Statistics of Iceland*

The Land

Area (in 1.000 km^2)		
Cultivated	1.0	
Grazings	20.0	
		21.0
Glaciers	12.0	
Lakes	3.0	
Lava	11.0	
Sands	4.0	
Other wastes	52.0	
		82.0
Total area		103.0

The People

Total population Dec. 1, 1974: 216.628 (2,1 per km^2).
Reykjavik population Dec. 1, 1974: 84.772.

Changes in Population

Annual averages 1971–1974	Persons	Per 1.000 inhabitans
Born alive	4.500	21.5
Deaths	1.474	7.0
Net migration	15	–
Marriages constracted	1.690	8.1
Marriages dissoved	933	4.5
– by divorce	320	1.5
– by death	613	3.0

Average life expectancy 1966–1970

Women	76.3 years
Men	70.7 years

Religion	Per cent 1964	Per cent 1974
Church of Iceland	91.8	92.7
Other Lutherans	5.9	4.6
	97.7	97.3
R. Catholics	0.5	0.6
Other Christians	0.7	1.0
	98.9	98.9
No confession	1.1	1.1
	100.0	100.0

Living Standards

Minimum hourly daytime wages, Sept. 1975: Ikr. 306,00.

Average yearly income of married workers and seamen in 1974: Ikr. 1.065.000.

In 1974 approximately 80 % of dwelling units were owner occupied.

Per 1.000 inhabitants (end of 1972):

Passenger cars	329
Radio receivers	291
Television sets	235
Telephones	325

Milk consumption

Per day per person 0.73 ltr. (1974).

Energy consumption

Per head in coal equivalent: 7 metric tons (1974).

Elections to the Althing	1971 seats	1971 vote	1974 seats	1974 vote
Independence Party	22	(36.2)	25	(42.7)
Progressive Party	17	(25.3)	17	(24.9)
People's Union	10	(17.1)	11	(18.3)
Labour Party	6	(10.5)	5	(9.1)
Union of Liberals and Leftists	5	(8.9)	2	(4.6)
Others	0	(2.0)	0	(0.4)
	60	(100 %)	60	(100 %)

The School System 1974–1975

Education is compulsory between the age of 7 and 15.

Schools	Number of Schools	Number of Pupils	Number of Teachers
Primary	181	30.700	2.900
Secondary	131	16.300	
Technical and special	100	13.000	1.000
Teachers' Training Colleges	3	380	80
Colleges	14	3.800	340
University	1	2.550	400
		66.730	4.720

*Source: National Economic Institute October 1975

Production and Capital Formation

Million	Preliminary 1973	1974
Gross National Product	92.430	133.040
Gross Fixed Capital Formation	28.610	43.230
Per cent of GNP	31.0	32.5

Averages 1969–1974 (inclusive):

Growth of Gross National Product 5.6 per cent per annum.

Growth of Gross National Income (incl. effect of changes in terms of trade) 7.2 per cent per annum.

In 1974 Gross National Product per head was US $6.170 (rate of exchange in force in each period).

Distribution of Employment

Million kr.	Percentages 1969	1973
Farming	13.3	10.7
Fisheries	6.0	5.4
Fish processing	8.1	7.4
Other manufacturing	16.3	17.5
Construction	11.4	12.0
Electricity, water supply etc.	0.7	0.5
Commerce	13.3	13.9
Transport and communications	8.7	8.6
Services	21.3	23.2
In service of the defense force	0.9	0.8
	100.0	100.0

Fisheries

Catches	1973 thous. tons	1974 thous. tons
White fish	398	417
Herring	43	40
Capelin	442	465
Shrimp, lobster and shellfish	15	11
Other	4	6
Total catch	902	939
Fishing fleet (end of year)		
Number of fishing vessels	905	910
Total size; GRT	91.852	97.778

Farming

Number of farms. Begining of 1974: 4.984.

Livestock (in thousands)	End of 1972	End of 1973	End of 1974
Sheep	830	850	865
Poultry	200	200	230
Cattle	65	67	67
Horses	39	7	7

	1972	1973	1974
Total milk production, tons	128.500	129.500	131.600
Milk processed in dairies, tons	109.750	112.537	115.964
Number of dairies. End of year	19	19	18
Mutton and lamb prod., tons	11.827	13.351	13.501

Foreign Trade, million kr. f.o.b.

Commodities	Preliminary 1973	1974
Exports	26.040	32.880
Imports	29.180	48.480
Balance	3.140	15.600
Goods and Services		
Exports	37.410	48.080
Improts	40.025	63.610
Balance	2.615	15.530

Principal Exports, Percentages	1973	1974
Marine products total	73.7	74.8
Frozen fish	34.5	32.3
Fishmeal and -oil	16.7	13.6
Salted white fish	11.8	19.3
Fresh and iced fish	6.1	5.5
Other marine products	4.6	4.1
Agricultural products	2.9	2.9
Aluminium ingot	17.1	14.6
Other manufacturing	5.2	5.2
Other products	1.1	2.5
	100.0	100.0

Principal trading partners 1973 and 1974. Percentages.

	Exports (fob)		Imports (cif)	
	1973	1974	1973	1974
United States	26.6	22.1	7.5	7.9
United Kingdom	10.6	8.5	10.8	10.9
West-Germany	11.8	8.8	11.4	12.1
Soviet Union	3.6	7.6	6.4	9.5
Denmark	7.7	5.8	8.9	9.4
Sweden	2.4	2.1	7.6	7.0
Norway	1.5	3.2	10.3	8.4
Netherlands	1.9	0.7	6.7	6.7
Italy	3.7	3.0	1.6	1.4
Portugal	4.6	10.3	0.4	0.4
Other	25.6	27.7	28.4	26.3
	100.0	100.0	100.0	100.0

Aircraft

in overseas operation, Sept. 1975

Icelandair	2 aircraft	total	252 seats
Liftleidir	4 –	–	996 –
Total	6 aircraft		1.248 seats

Overseas Passenger Transports

Arriving passengers	1973	1974
Total passenger transports	121.680	123.417
By air, total	118.919	123.373
Foreigners	72.720	68.456
Icelanders	46.199	54.917
By sea, total	2.761	44
Foreigners	1.299	20
Icelanders	1.462	24

Shipping

All vessels other than fishing vessels.
End of 1974. 86 vessels, totalling 69.431 G.R.T

Power Generation and Consumption

Electricity generated	1973	1974
Water power, million kWh	2.181	2.258
Thermal power, million kWh	104	84
Total power generation	2.285	2.342
Installed capacity		
Water power, thousand kW	376.0	376.1
Thermal power, thousand kW	92.6	99.2
Total installed capacity	468.6	475.3

Power consumption	1974	
Large individual consumers:	Million kWh	Per cent
Aluminium plant	1.230	52.5
Fertilizer plant	140	6.0
Cement plant	16	0.7
Keflavik airport	64	2.7
Other power consumption	892	38.1
Total	2.342	100.0

12.
References

A. General

AINSWORTH, M. D. S., BELL, S. M., and STAYTON, D. J.:"Infant-mother Attachment and Social Development: Socialization as a Product of Reciprocal Responsiveness to Signals". In: RICHARDS, M. P. M. (Ed.): The Integration of a Child into a Social World. Cambridge: Cambridge University Press 1974.

ANASTASI, M.: Differential Psychology. New York: MacMillan 1958.

ARIÈS, P.: Centuries of Childhood. Social History of Family Life. New York: Knopf 1970.

BALTES, P. E., and SCHAIE, W. (Eds.): "Life-span Developmental Psychology". Personality and Socialization. New York: Academic Press 1973.

Basic Statistics of Iceland 1975. Reykjavik: National Economic Institute 1975.

BAUMRIND, D.: Current Patterns of Parental Authority". In: Developmental Psychology Monographs, Vol. 4 (1971), No. 1, Part 2.

BAUMRIND, D.: "Child Care Practices Anteceding Three Patterns of Preschool Behavior". In: Genetic Psychology Monographs, Vol. 75 (1975), p. 43-88.

BEAN, F. D., BONJEAN, C. M., and BURTON, M. G.: "Intergenerational Occupational Mobility and Alienation". In: Social Forces, 1973, No. 1, p. 62-73.

BECKER, W. C.: "Consequences of Different Kinds of Parental Discipline". In: HOFFMANN, M. L., and HOFFMANN, L. W. (Eds.): Review of Child Development Research. New York: Russel Sage Foundation Vol. 1 (1964), p. 169-208.

BEM, D. J., and ALLEN, A.: "On Predicting Some of the People Some of the Time: The Search for Cross-situational Consistencies In Behavior". In: Psychological Review, Vol. 81 (1974), p. 506-520.

BENDIX, R., and LIPSET, S. M.: Class, Status and Power. New York: Free Press 1953.

BERNSTEIN, B.: "A Socio-linguistic Approach to Social Learning". In: GOULD, J. (Ed.): Penguin Survey of the Social Sciences. Harmondsworth: 1965.

BERNSTEIN, B.: "A Socio-linguistic Approach to Socialization: With some Reference to Educability". In: Gumperz, J. J., and Hymes, D. (Eds.): New Directions in Socio-linguistics. New York: Rinehart and Winston 1971a.

BERNSTEIN, B.: "Social Class, Language and Socialization". In: Current Trends in Linguistics, Vol. 12, The Hagne: Mouton.

BERNSTEIN, B.: "On the Classification and Framing of Educational Knowledge". In: YOUNG, M. F. D. (Ed.): Knowledge and Control, Collier-MacMillan 1971c.

BERNSTEIN, B.: "A Critique of the Concept of Compensatory Education". In: PASSOW, A. H. (Ed.): Improving Opportunities for the Disadvantaged. New York: Teacher College Press, Columbia University 1972.

BERNSTEIN, B., and HENDERSON, D.: "Social Class Differences in the Relevance of Language to Socialization". In: BERNSTEIN, B. (Ed.): Class, Codes and Control. London: Routledge and Kegan Paul, Vol. 2 (1973), p. 24-47.

BERTRAM, H.: "Probleme einer sozialstrukturell orientierten Sozialisationsforschung". In: Zeitschrift für Soziologie, Vol. 5 (1976), No. 2, p. 103-117.

BJARNASON, D. S.: "A Study of Intergenerational Differences in the Perception of Stratification in Urban Iceland. Unpubl. MSc thesis, University of Keele, 1974.

BJÖRNSSON, B.: The Lutheran Doctrine of Marriage in Modern Icelandic Society. Oslo 1971.

BJÖRNSSON, S.: "Miljöets Betydning for Intelligensudviklingen". In: BLEKEN, U., and HALDORSEN, B. (Eds.): Innlaering i Forskole-alderen. Oslo: Laererstudenternes forlag 1973.

BJÖRNSSON, S.: "Epidemological Investigation of Mental Disorders of Children in Reykjavik, Iceland". In: Scandinavian Journal of Psychology, Vol. 15 (1974), No. 4, p. 244-254.

BLAU, P. M., and DUNCAN, O. D.: The American Occupational Structure. New York: Wiley 1967.

BOALT, G., and HUSÉN, T.: SkolandsSciologi. Stockholm: Almqvist and Wiksell 1964.

BOLTE, K. M.: Der soziale Aufstieg und Abstieg. Stuttgart: Enke 1959.

BOTTANI, N. et al.: "The Development and Implementation of Social Policy. (Report of a Working Group)". In: LÜSCHER, K.(Ed.): The Child in Contemporary Society. Notes on the First Wolfsberg Conference, June 27-July 3, 1976. Wolfsberg Bulletin 1. Constance: University of Constance 1977.

BOURDIEU, P.: Systèmes d'Enseignement et Systèmes de Pensée. Centre de Sociologie Européenne, mimeo 1966.

BOURDIEU, P., and PASSERON, J. C.: Les Héritiers. Les Etudiants et la Culture. Paris 1964.

BOURDIEU, P., and PASSERON, J. C.: Die Illusion der Chancengleichheit. Stuttgart: Klett 1971.

BOWERS, K. S.: "Situationism in Psychology. An Analysis and a Critique". In: Psych. Review, Vol. 80 (1973), No. 5, p. 307-333.

BOWLES, S., and GINTIS, H.: Schooling in Capitalist America. Educational Reform and the Contradictions of Economic Life. New York: Basic Books 1976.

BRODDASON, T., and WEBB, K.: "On the Myth of Social Equality in Iceland". In: Acta Sociologica, 1975, No. 1.

BRONFENBRENNER, U.: "Socialization and Social Class through Time and Space". In: MACCOBY, E. E., NEWCOMB, T. M., and HARTLEY, E. L. (Eds.): Readings in Social Psychology. New York: Rinehart and Winston 1958, p. 400-425.

BRONFENBRENNER, U.: "The Origins of Alienation". In: Scientific American, Vol. 231 (1974) No. 2, p. 53-61.

BRONFENBRENNER, U.: "Reality and Research in the Ecology of Human Development". In: Proceedings of the American Philosophical Society, Vol. 119 (1975), No. 6, p. 439-469.

BRONFENBRENNER, U.: "Towards an Experimental Ecology of Human Development". In: American Psychologist, 1977 (in press).

BRONFENBRENNER, U., and MAHONEY, M. A. (Eds.): Influences on Human Development. Hinsdale: Dryden Press, 2nd ed., 1975.

CALDWELL, B. M.: "The Effects of Infant Care". In: HOFFMANN, M. L., and HOFFMANN, L. W. (Eds.): Review of Child Development Research. New York: Russel Sage Foundation, Vol. 1 (1964), p. 9-88.

CAMPAGNA, A. F., and HARTER, S.: "A Study of Moral Judgement in Sociopathic and Normal Children". In: Journal of Personality and Social Psychology, Vol. 31 (1975), No. 2, p. 199-205.

CARLSSON, G.: Social Mobility and Class Structure. Lund: Gleerup 1969.

CICOUREL, A. V.: "Interpretive Procedures and Normative Rules in the Negotiation of Status and Role". In: CICOUREL, A. V. CognitiveSciology. Harmondsworth: Penguin 1973, p. 11-41.

CLARK, B. R.: "The 'Cooling Out' Function in Higher Education". In: American Journal of Sociology, Vol. 65 (1960), No. 6, p. 569-577.

COLEMAN, J., et al.: Equality of Educational Opportunity. U.S. Dept. of Health, Education and Welfare, U.S. Government Printing Office. Washington 1966.

DAHMER, H.: Libido und Gesellschaft. Studien über Freud und die Freudsche Linke. Frankfurt a.M.: Suhrkamp 1973.

DAHRENDORF, R.: Arbeiterkinder an deutschen Universitäten. Tübingen: Mohr 1965a.

DAHRENDORF, R.: Bildung ist Bürgerrecht. Hamburg: Nannen 1965b.

DAHRENDORF, R., and PEISERT, H. (Eds.): Der vorzeitige Abgang vom Gymnasium. Studien und Materialien zum Schulerfolg an den Gymnasien Baden-Württembergs 1953-1963. Villingen 1967.

DATAN, N., and GINSBERG, L. H. (Eds.): Life-span Developmental Psychology. Normative Life Crises. New York: Academic Press 1975.

DeMAUSE, L.: "The Revolution of Childhood". In:DeMAUSE, L. (Ed.): The History of Childhood. Harper Torchbooks, Harper and Row 1975.

DEUTSCH, C.: "Social Class and Child Development". In: CALDWELL, B. M., and RICCIUTI, H. N.: Child Development and Social Policy, Review of Child Development Research, Chicago: University of Chicago Press, Vol. 3 (1973), p. 233-282.

DEUTSCH, M., KATZ, J., and JENSEN, A. R.: Social Class, Race and Psychological Development. New York: Holt, Rinehart and Winston 1968.

DREISER, T.: An American Tragedy. New York: Horace Liveright 1925.

DUNCAN, O. D., CUZZORT, R. P., and DUNCAN, B.: Statistical Geography. Problems in Analyzing Areal Data. New York: Free Press 1961.

DUNCAN, O. D., FEATHERMAN, D. L., and DUNCAN, B.: Socioeconomic Background and Achievement. New York: Seminar Press 1972.

DURKHEIM, E.: Suicide. New York: Free Press 1951.

EDELSTEIN, W.: "The Social Context of Educational Planning in Iceland". In: Scandinavian Journal of Educational Research, Vol. 15 (1971), p. 169-191.

EDELSTEIN, W.: "Diskursive oder ideologische Legitimation durch Wissenschaft. Zur neueren Rahmenrichtliniendiskussion". In: Neue Sammlung, H. 2 (1974), p. 133-143.

ELDER, G. H., Jr. (Ed.): Linking Social Structure and Personality. Beverly Hills, London: San Publications 1973.

ELDER, G. H., Jr.: Children of the Great Depression. Social Change in Life Experience. Chicago: University of Chicago Press, 1974.

ERIKSON, E. H.: Identity and the Life Cycle. Selected Papers, with a Historical Introduction by David Rapaport. New York: International Universities Press 1959.

ERIKSON, E. H.: Childhood and Society. New York: Norton 1963.

ERIKSON, E. H.: Identity, Youth and Crisis. New York: Norton 1968.

FROMM, E.: The Sane Society. London: Routledge and Kegan Paul, 1956.

FROMM, E., and MACCOBY, M.: Social Character in a Mexican Village. Englewood Cliffs/N. J.: Prentice Hall 1970.

GERTH, H., and MILLS, W.: Character and Social Structure. The Psychology of Social Institutions. New York: Harcourt, Brace and World 1964.

GIEHLER, W., and LÜSCHER, K.: "Die Soziologie des Kindes in historischer Sicht". In: Neue Sammlung, Vol. 15 (1975), No. 5, p. 442-463.

GLASS, D. V. (Ed.): Social Mobility in Britain. London: Routledge and Kegan Paul 1963.

GLASS, D. V., and KÖNIG, R.: "Soziale Schichtung und Soziale Mobilität". In: Kölner Zeitschrift für Soziologie und Sozialpsychologie, Special No. 5, Köln 1961, p. 339-345.

GORDON, M. (Ed.): The American Family in Social-historical Perspective. New York: Harper and Row 1973.

GOTTTESMAN, J. J.: "Biogenetics of Race and Class". In: DEUTSCH, M., KATZ, J., and JENSEN, A. (Eds.): Social Class, Race and Psychological Development. New York: Holt, Rinehart and Winston 1968.

GOULET, L. R., and BALTES, P. B. (Eds.): Life-span Development Psychology. Research and Theory. New York: Academic Press 1970.

GOYDER, J. C., and CURTIS, J. E.: "A Three-generational Approach to Trends in Occupational Mobility". In: American Journal of Sociology, Vol. 81 (1975), No. 1, p. 129-138.

HABERMAS, J.: Technik und Wissenschaft als "Ideologie". Frankfurt a.M.: Suhrkamp 1968.

HABERMAS, J.: "Theorie der Gesellschaft oder Sozialtechnologie". In: HABERMAS, J., and LUHMANN, N.: Theorie der Gesellschaft oder Sozialtechnologie. Frankfurt a.M.: Suhrkamp 1971.

HAAN, N.: Coping and Defending. Processes of Self-Environment Organization. New York: Academic Press 1977.

HALL, E. T.: The Silent Language. Garden City: Doubleday 1959.

HALSEY, A. H. (Ed.): Ability and Educational Opportunity. Paris: OECD 1971.

HALSEY, A. H., FLOUD, J., and ANDERSON, C. A. (Eds.): Education, Economy and Society. Glencoe: Free Press 1961.

HARRÉ, R., and SECORD, P.: The Explanation of Social Behavior. London: Blackwell 1973.

HAYDEN, T., and MISCHEL, W.: "On Maintaining Trait Consistency. In: Journal of Personality, vol. 44 (1976), p. 109-132.

HELGASON, L.: "Psychiatric Services and Mental Illness in Iceland. Incidence Study (1966-1967) with 6-7 Years Follow-up". In: Acta Psychiatrica Scandinavica, Supplementum 268. Copenhagen: Munksgaard 1977.

HELGASON, T.: "Epidemiology of Mental Disorders in Iceland". In: Acta Psychiatrica Scandinavica, Supplementum 173, Vol. 40. Copenhagen: Munksgaard 1964.

HENDIN, H.: Suicide in Scandinavia. New York: Grune and Stratton 1964.

HOERNING, E.: Antizipatorische Sozialisation. Vertikale Mobilität und Probleme der Statusinkonsistenz. Unpubl. diss., Berlin 1977.

HOFFMAN, L. W.: "The Value of Children to Parents and The Decrease in Family Size". In: Proceedings of the American Philosophical Society, Vol. 119, (1975), No. 6, p. 430-438.

HOGGART, R.:The Uses of Literacy. London: Chatto and Windus 1957.

HOLLINGSHEAD, A. B.: Elmtown's Youth. New York: Wiley 1961.

HOLLINGSHEAD, A. B., and REDLICH, F. C.: Social Class and Mental Illness: A Community Study. New York: Wiley 1966.

HOLLOS, M.: Growing Up in Flathill. Social Environments and Cognitive Development. Oslo: Universitetsforlaget 1974.

HOLLOS, M., and COWAN, P. A.: Social Isolation and Cognitive Development. Logical operations and Role-taking Abilities in three Norwegian Social Settings. In: Child Development 44 (1973), p. 630-641.

HORKHEIMER, M.: Autorität und Familie. Schriften des Instituts für Sozialforschung. Frankfurt a.M. 1936.

HUŠEN, T. and BOALT, G.: Bildungsforschung und Schulreform in Schweden. Stuttgart: Klett 1968.

INKELES, A.: "Industrial man: The relation of status to experience, perception, and value". In: The American Journal of Sociology, Vol. 66 (1960), No. 1, p. 1-31.

INKELES, A.: "Personality and Social Structure". In: MERTON, R. K., BROOM, L., and COTTRELL, L.S. Jr. (Eds.): Sociology Today. Problems and Prospects. New York, Vol. 2 (1965).

INKELES, A., and SMITH, D. H.: Becoming Modern. Individual Change in Six Developing Countries. Cambridge: Harvard University Press 1976.

JACKSON, E. P.: "Status Consistency and Symptoms of Stress". In: American Sociological Review, Vol. 27 (1962), p. 469-480.

JACKSON, E. F., and BURKE, P. J.: "Status and Symptoms of Stress: Additive and Interaction Effects". In: American Sociological Review, Vol. 30 (1965), p. 556-564.

JENCKS, C.: Inequality. New York: Basic Books 1972.

JENSEN, A. R.: "How Much Can We Boost IQ and Scholastic Achievement". In: Harvard Educational Review, Vol. 39 (Winter 1969), p. 1-123.

JENSEN, A. R.: Educability and Group Differences. London: Methuen 1973.

JENSEN, A. R.: "Cumulative Deficit: A Testable Hypothesis". In: Developmental Psychology, Vol. 10 (1974), No. 6, p. 996-1019.

JONSSON, G., and KÄLVESTEN, A. L.: 222 Stockholmspojkar (222 Stockholm boys). Stockholm: Almqvist and Wiksell, 1964.

KAHL, J. A.: "'Common man' boys". In: HALSEY, A. H., FLOUD, J., and ANDERSON, C. A. (Eds.): Education, Economy and Society. Glencoe: Free Press 1961 p. 348-366.

KELLER, M.: Kognitive Entwicklung und soziale Kompetenz. Zur Entstehung der Rollenübernahme in der Familie und ihrer Bedeutung für den Schulerfolg. Stuttgart: Klett 1976a.

KELLER, M.: "The Development of Role-taking Ability: Social Antecedents and Consequences For School Success". In: Human Development, Vol. 19 (1976b), p. 120-132.

KEMENY, J.: Perspectives on the Micro-Macro Distinction. The Sociological Review, New Series, Vol. 24 (1976), No. 4, p. 731-752.

KLEINING, G.: "Struktur- und Prestigemobilität in der Bundesrepublik Deutschland". In: Kölner Zeitschrift für Soziologie und Sozialpsychologie, Vol. 1 (1971), p. 1-33.

KLEINING, G.: "Soziale Mobilität in der Bundesrepublik Deutschland". In: Kölner Zeitschrift für Soziologie und Sozialpsychologie, Vol. 27 (1975), No. 1, p. 97-121; No. 2, p. 273-292.

KOHLBERG, L., and MAYER, R.: "Development as the Aim of Education". In: Harvard Educational Review 4 (1972), p. 449-496.

KOHN, M. L.: Class and Conformity. A Study in Values. Homewood, Ill.: Dorsey Press 1969.

KORNHAUSER, A.: Mental Health of the Industrial Worker: A Detroit study. New York: Wiley 1965.

KRAPPMANN, L.: Soziologische Dimensionen der Identität. Strukturelle Bedingungen für die Teilnahme an Interaktionsprozessen. Stuttgart: Klett 1971.

KRAPPMANN, L., OEVERMANN, U., and KREPPNER, K.: "Was kommt nach der schichtspezifischen Sozialisationsforschung?" In: LEPSIUS, M. R. (Ed.): Zwischenbilanz der Soziologie. Verhandlungen des 17. Deutschen Soziologentages. Stuttgart: Enke 1976.

LABOV, W.: "The Logic of Non-standard English". In: WILLIAMS, F. (Ed.): Language and Poverty. Chicago: Markham Press 1970.

LENSKI, G.: Power and Privilege. New York: McGraw-Hill 1966.

LEVIN, H. M.: Equal Educational Opportunity in Western Europe: A Contradictory Relation. Palo Alto, Cal.: Stanford University, Center for Economic Studies 1976.

LOPREATO, J., and HAZELRIGG, L. E.: Class, Conflict and Mobility. Theories and Studies of Class Structure. San Francisco: Chandler 1972.

LOPREATO, J., and LEWIS, L. S. (Eds.): Social Stratification. A Reader. New York: Harper and Row 1974.

LUCKMANN, T., and BERGER, P. L.: Social Mobility and Personal Identity". In: Archives Européennes de Sociologie, Vol. 5 (1964), No. 2, p. 331-344.

MACCOBY, E. E. (Ed.): The Development of Sex Differences. Stanford: Stanford University Press 1966.

MARCUSE, H.: Eros and Civilization. New York: Random House 1955.

MARCUSE, H.: One-dimensional Man. London: Routledge and Kegan Paul 1964.

MARJORIBANKS, K.: "Environment, Social Class and Mental Abilities". In: Journal of Educational Psychology, Vol. 63 (1972), p. 103-109.

MARX, K.: Das Kapital. Band I. In: MARX, K., and ENGELS, F.: Werke. Vol. 23. Berlin: Dietz 1972.

MEAD, G. H.: On Social Psychology. Selected Papers edited and with an Introduction by Anselm Strauss. Chicago: University of Chicago Press 1956.

MEAD, G. H. (Ed.): Mind, self and society. From the standpoint of a social behaviorist. Chicago: Chicago University Press 1963, (1934).

MILLER, S. M.:"Comparative Social Mobility: A Trend Report". In: Current Sociology, Vol. 9 (1960), No. 1, p. 1-89.

MILLER, D. R, and SWANSON, G. E.: The Changing American Parent. New York: Wiley 1958.

MISCHEL, W.: "Toward a Cognitive Social Learning Reconceptualization of Personality". In: Psychological Review, Vol. 80 (1973), p. 252-283.

MITSCHERLICH, A.: Auf dem Weg zur vaterlosen Gesellschaft. München: Piper 1963.

MÜLLER, W., and MAYER, K. U.: Chancengleichheit durch Bildung. Untersuchungen über den Zusammenhang von Ausbildungsabschlüssen und Berufsstatus. Gutachten und Studien der Bildungskommission 42. Stuttgart: Klett 1976.

MOORE, H., and KLEINING, G.: "Das soziale Selbstbild der Gesellschaftsschichten in Deutschland". In: Kölner Zeitschrift für Soziologie und Sozialpsychologie, Vol. 11 (1960), No. 1, p. 86-119.

MOOS, R.: "Conceptualizations of Human Environments". In: American Psychologist, Vol. 8 (1973), p. 652-665.

OEVERMANN, U.: "Soziale Schichtung und Begabung". In: Zeitschrift für Pädagogik, Supplement 6 (1966), p. 166-186.

OEVERMANN, U.: "Schichtenspezifische Formen des Sprachverhaltens und ihr Einfluß auf die kognitiven Prozesse". In: ROTH, H.: (Ed.): Begabung und Lernen. Gutachten und Studien der Bildungskommission des Deutschen Bildungsrates. Stuttgart: Klett Vol. 4 (1968), p. 297-356.

OEVERMANN, U.: "Die falsche Kritik an der kompensatorischen Erziehung". In: Neue Sammlung, Vol. 14 (1974), No. 6, P. 537-568.

OEVERMANN, U., KRAPPMANN, L., and KREPPNER, K.: "Bemerkungen zur Diskussion der sogenannten 'Kode-Theorie'". In: Linguistische Berichte, Vol. 23 (1973), p. 59-69.

OEVERMANN, U., et al.: "Beobachtungen zur Struktur der sozialisatorischen Interaktion. Theoretische und methodologische Fragen der Sozialisationsforschung". In: LEPSIUS, M. R. (Ed.): Zwischenbilanz der Soziologie. Verhandlungen des 17. deutschen Soziologentages. Stuttgart: Enke 1976a, p. 274-295.

OEVERMANN, U., et al.: "Die sozialstrukturelle Einbettung von Sozialisationsprozessen: Empirische Ergebnisse zur Ausdifferenzierung des globalen Zusammenhangs von Schichtzugehörigkeit und gemessener Intelligenz sowie Schulerfolg". In: Zeitschrift für Soziologie, Vol. 5 (1976b), No. 2, p. 167-199.

PARSONS, T.: "An Analytical Approach to the Theory of Social Stratification". In: American Journal of Sociology, Vol. 45 (May 1940).

PARSONS, T.: "A Revised Analytical Approach to the Theory of Social Stratification". In: BENDIX, R., and LIPSET, S. M.: Class, Status and Power. New York: Free Press,1953,p. 92-128.

PARSONS, T.: Social Structure and Personality. New York: Free Press 1964.

PEISERT, H.: Soziale Lage und Bildungschancen in Deutschland. München: Piper 1967.

RICHTER, H. E.: Patient Familie. Reinbek bei Hamburg: Rowohlt 1970.

RIESMAN, D., GLAZER, D., and DENNEY, R.: The Lonely Crowd. A Study of the Changing American Character. New Haven: Yale University Press 1964

ROBINS, L.: Deviant children grown up. Baltimore: Williams and Wilkins 1966.

RORSCHACH, H.: Psychodiagnostik. Methoden und Ergebnisse eines wahrnehmungsdiagnostischen Experiments. Bern: Huber 1947-1972.

RUMPF, H.(Ed.): Schulwissen. Probleme der Analyse von Unterrichtsinhalten. Göttingen: Vandenhoek und Rupprecht 1971.

SCHAEFER, E. S.: "A Circumplex Model for Maternal Behavior". In: Journal of Abnormal Social Psychology, Vol. 59 (1959), p. 226-235.

SCHAEFER, E. S., and BAYLEY, N.: "Maternal Behavior, Child Behavior and their Intercorrelations from Infancy through Adolescence". In: Monographs of the Society for Research in Child Development. Vol. 28 (1963), No. 3, Ser.No. 87.

SCHEUCH, E. K.: "An Instrument to Measure Social Stratification in Western Germany". In: Transactions of the Third World Congress of Sociology. Amsterdam, Vol. 3 (1956), p. 185-189.

SEASHORE, T., WESMAN, A., and DOPPELT, J.: "The Standardization of the Wechsler Intelligence Scale for Children". In: Journal of American Psychology, Vol. 14 (1950), p. 99-110.

SPITZ, R. A.: "The Derailment of Dialogue: Stimulus Overload, Action Cycles and the Completion Gradient". In: Journal of the American Psychoanalytic Ass., Vol. 12 (1964), No. 4, p. 752-770.

SPITZ, R. A.: The First Year of Life. A Psychoanalytic Study of Normal and Deviant Development of Object Relations. New York: International University Press, 1965.

SPITZ, R. A.: "The Effect of Personality Disturbances in the Mother on the Well-being of Her Infant". In: ANTHONY, E. J., and BENEDEK, T.: Parenthood. Boston: Little Brown 1970, p. 502-524.

STONEQUIST, E. V.: The Marginal Man. New York: Scribners 1937.

SVALASTOGA, K.: Prestige, Class and Mobility. London: Heinemann 1959.

TYLER, L. E.: The Psychology of Human Differences. New York: Appleton Century Croft 1965.

WARNER, W. L., MEEKER, M., and EELLS, K.: Social Class in America. Chicago: Science Research Associates 1949.

WATZLAWICK, P., BEAVIN, J. H., and JACKSON, D. D.: Pragmatics of Human Communication. A Study of Interactional Patterns, Pathologies, and Paradoxes. New York: Norton 1967.

WEBER, M.: Wirtschaft und Gesellschaft. Grundriß der verstehenden Soziologie. Köln und Berlin: Kiepenheuer 1964.

WEBER, M.: Gesammelte Aufsätze zur Wissenschaftslehre. Tübingen: Mohr 1968a.

WEBER, M.: Methodologische Schriften. Frankfurt a.M.: S. Fischer 1968b.

WEBER, M.: Die protestantische Ethik. 2. volumes. Hamburg: Siebenstern Verlag 1969-1972.

WECHSLER, D.: Intelligence Scale for Children. New. York: Psychological Corporation 1949.

WEINSTEIN, E. A: "The Development of Interpersonal Competence". In: GOSLIN, D. A. (Ed.): Handbook of Socialization Theory and Research. Chicago: Rand McNally 1969, p. 752-785.

WRIGHT, E. O., and PERRONE, L.: "Marxist Class Categories and Income Inequalities". In: American Sociological Review. Vol. 42 (1977), p. 32-55

YOUNG, M.: Knowledge and Control. London: Collier MacMillan 1971.

YOUNG, M.: The Rise of Meritocracy 1870-2033. An Essay on Education and Equality. London: Thames and Hudson 1961.

ZIGLER, E.: "Social Class and the Socialization Process". In:CHESS, S., and THOMAS, A. (Eds.): Annual Progress in Child Psychiatry and Child Development. New York 1971, p. 185-209.

B. Icelandic

ÁGÚSTSON, S. J.: Börn og baekur. (Children and books) Reykjavík: Menningarsjódur 1972.

BJÖRNSSON, S.: "Áhrif umhverfis á greindarthroska barna". (The influence of environment on children's intellectual development) In: Menntamál, 1972, No. 3.

BRODDASON, T.: "Um dreifingu bóka á Islandi og í Svíthjód. Nokkrar nidurstödur rannsóka. (On the distribution of books in Iceland and Sweden. Some research results) In: Skírnir, Tímarit hins íslenzka bókmenntafélags, Vol. 146 (1972).

EDELSTEIN, S.: "Er gaman í skólanum"? (Is school fun?) In: Menntamál, 1976, No. 2. Whole special number.

GUDMUNDSDÓTTIR, B., KARLSDÓTTIR, E., and THÓRDARDÓTTIR, E.: Námsferill reykvíska ungmenna. (Educational careers of youth in Reykjavik). Unpubl. BA thesis in Psychology at the University of Iceland, 1975.

GUDMUNDSSON, E.: Afi og Amma. (Grandfather and grandmother) Reykjavík 1941.

GUDMUNDSSON, E.: Pabbi og Mamma. (Father and mother) Reykjavík 1944.

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GUNNARSSON, G.: Fjallkirkjan. (The church on the mountain) Reykjavík 1941-1943.

HANNIBALSSON, A., and BERGSSON, T.: Greindarpróf Wechslers handa börnum. (Wechsler's Intelligence Scale for Children. Translation and Standardization) Reykjavík: The child guidance clinic of the public health center, 1971.

JÓNASSON, M.: Greindarthroski og Greindarpróf. (Development of intelligence and intelligence testing) Reykjavík: Ministry of Education, 1956.

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JÓNSSON, S.: Sagan hans Hjalta litla. (The story of little Hjalti) 2. ed. Reykjavík 1965.

LAXNESS, H.: Sjálfstaett fólk: Hetjusaga. (Independent people. A heroic tale) 3. ed. Reykjavík 1961.

MAGNÚSSON, S.: "Könnun á bóklestri Islendinga". (A survey of Icelanders' reading habits). In: Samvinnan, 1977, No. 3.

MANNTAL Á ISLANDI. (Population census of Iceland) Reykjavík: Icelandic Census Bureau, 1969.

ÓLAFSSON, T.: "Bóklestur og menntun". (Reading and Education) In: Skírnir. Tímarit hins íslenska bókmenntafélags, Vol. 150 (1976).

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